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The island states of the Pacific and Indian Oceans: anatomy of development

R T Shand, editor



The island states of the Pacific and Indian Oceans

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**The island states of
the Pacific and Indian
Oceans: anatomy of
development**

R T Shand, editor

Series editor Gavin W. Jones

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Summary

This volume is the outcome of a conference held in 1979 by the Development Studies Centre. Those taking part came from a variety of disciplines and from many island nations.

The 1970s witnessed dramatic changes in both the Pacific and Indian Ocean regions. Most island states have become independent. Some have joined the United Nations; many are members of the Commonwealth. The same period saw Australia's perceptions of these island states changing as metropolitan powers withdrew, with the consequence that programs of aid have been increased and improved, and greater notice taken of these island countries' particular problems.

Island states usually display such positive advantages as higher life expectancies and higher school enrolments than comparable continental developing countries. They often appear very prosperous. Yet their very smallness (in size and population), combined with isolation, is a constraint on economic development. And there is no easy solution to all the problems, most of which are discussed here.

Foreword

During the seventies we have witnessed dramatic changes in both the Indian and Pacific Ocean regions. Most of the island states have become independent nations. Some have joined the United Nations; many are members of the Commonwealth. The Pacific nations are in the process of forging their own regional organizations. The same period has seen a surge of international interest in the problems of small island states. This heightened interest is to a large extent a function of the political change just referred to.

The island states were accorded special status by the UN, initially (and still principally) by UNCTAD. The special problems faced by these states were substantially discussed at UNCTAD IV and V, and have been taken up by the Commonwealth on both a regional and world-wide basis. It is fair to say that Australia has been particularly active in international forums in stressing the special importance of the island states and in ensuring that they receive a reasonable share of the aid flows of multilateral organizations.

The seventies have also seen a major change in Australia's perceptions about the Pacific and Indian Oceans. The changing political realities, including the phased withdrawal of metropolitan powers as well as a growing appreciation of the unique developmental problems being faced by island nations, led Australia to increase and improve the quality of its programs of assistance, first in the South Pacific and then more recently in the Indian Ocean. Even as recently as 1970 very little Australian aid was directed towards the Pacific. Bilateral aid, largely in the form of scholarships and training awards under our South Pacific Assistance Program (SPAP), amounted only to around \$1 million. Since then the level of Australian aid has grown dramatically. In 1973 a pledge of \$15 million

over three years was made, a four-fold increase in aid over the previous three years. The next three-year pledge, in 1976, was another four-fold increase to \$60 million. The latest three-year commitment of \$84 million, with provision for an annual review, while not an increase of the same magnitude as the previous two, maintains the strong upward trend in Australia's aid performance, so much so that Australia is now the principal donor of official development assistance to countries of the Pacific region. (If aid to Papua New Guinea is included Australia is overwhelmingly the main donor.)

The last few years have seen a similar, although not yet so pronounced, trend in Australia's relations with the Indian Ocean islands. For far too long Australia ignored the fact that it was an Indian Ocean power. Presumably this was a natural outcome of a concentration of population and economic activity in the eastern states. The oil crisis, events in Iran and the Horn of Africa, the Soviet naval build-up, the Commonwealth Heads of Government Meeting in Lusaka and the Prime Minister's visits to Mauritius and the Seychelles, have all served to bring about a change in focus.

Against this background, Australia is expanding and improving the quality of its aid programs to the Indian Ocean island states. While the Maldives has long been a recipient of aid under the Colombo Plan, programs of project aid to both the Seychelles and Mauritius have recently been introduced. Total assistance in 1979 was around \$2.2 million. This should increase in future years, the precise rate being dependent on budgetary circumstances at the time.

In designing its aid to these regions, Australia has made a very serious attempt to take account of their specific requirements and to meet special difficulties. Indeed, the South Pacific program has in many ways been the most innovative of all our regional programs. I cite, for example, our willingness to meet local costs of projects and in certain cases running costs, especially in their initial stages. Staffing assistance grants enable recipients to hire much needed expertise from Australia. The decision as to who shall be hired is left entirely to the governments concerned. Salaries are paid direct by those governments, so avoiding any question of divided loyalties.

Grants to development banks (since extended to the Indian Ocean) were another first in the recognition of the

need for augmenting sources of development capital through a means appropriate to the needs of the Pacific. As an incentive to product diversification, a development option for extremely open economies which are dependent on the export of one or two commodities, Australia has indicated its willingness to fund island equity in joint ventures with Australian companies. In view of the special manpower requirements of the Pacific, training continues to be an important part of its assistance.

Australia has also given very strong support to programs which assist the entire region, for example the University of the South Pacific and the Pacific Forum Line. Australia pays a very large part of the budgets of regional organizations like the South Pacific Commission.

The above forms of co-operation represent an attempt to respond to the felt needs of island states, both individually and as a region. However, time does not stand still. Many of them have been in use or on offer for over three years. In that time much work has been done on defining the special problems and needs of the island states so that we are beginning to get a better understanding of their development assistance requirements.

It appears that the island states have many unique developmental problems that are rather paradoxical at first sight. The demographers have pointed out that most island states have higher life expectancies, higher school enrolments, declining fertility rates and better health services than comparable continental developing countries. However, these apparently positive characteristics need to be weighed against the natural disadvantages suffered by most island countries: very small population, limited land size, a low level of economic opportunity, and geographic as well as cultural isolation. A small population can produce a number of distinctive economic constraints. These include a small revenue base, a limited range of manpower and skills, as well as the disadvantages of smallness of scale. There is also pressure on governments rather than private enterprise to provide services, usually at a high per capita cost.

Smallness combined with isolation (and sometimes compounded by fragmentation) is an effective constraint on development. High transport and communications costs are the order of the day. The oil crisis will further raise

the cost of shipping for the small island states. Smallness and isolation have also been disincentives to overseas investment and have limited opportunities for the large international financial institutions whose lending operations are not geared to the size of the economies of the smaller, let alone micro, island states.

The economies of island states are generally very open with a strong dependence on imported goods and services. They are vulnerable to external shocks, particularly those associated with exports, as most states depend on the export of a small number of primary products. Price fluctuations for such commodities are well known. The Lomé convention has assisted some countries to smooth out the shocks and it is hoped that the Common Fund will provide some further advantages in this area.

The Commonwealth Secretary-General, in a paper prepared for the recent Heads of Government meeting in Lusaka, summarized the problems facing island states as follows:

such states are characterised to a greater or lesser degree by limited natural resources, high relative distance to external markets, an undiversified economy, greater economic vulnerability due to export income being dependent on a narrow range of commodities (and in some cases a single product), serious balance of payments problems, high unemployment and underemployment, limited access to capital markets and, consequently, a heavy dependence on official aid from bilateral and multilateral sources. All these factors give rise to fundamental structural problems which block the process of economic transformation.

These then are some of the problems faced in various degrees by all the island states of the Pacific and Indian Oceans. Their solution will be particularly difficult for the poorer states such as the Maldives and the Comoros, and for the smallest such as Tuvalu and Niue.

When account is taken of these disabilities it becomes clear that classifications of developing countries in terms of least developed, etc., done on the basis of per capita income, can be quite misleading when applied to the small island countries. It is hoped that those who criticize Australian aid because insufficient goes to the so-called poorest countries will have regard to the realities of the

situation of most of our developing country neighbours.

There is no panacea, no single or simple correct solution to the problem of the development of small island economies. A plurality of approaches, which are adapted to the individual situation of each country, needs to be developed and considered. All possible avenues, even some that may appear at first sight dead ends or too unorthodox must be explored.

We must not automatically presume that current theory or practice is optimal. Indeed, in running an aid program to the Pacific ADAB is conscious of the need for constant reassessment both on a regional as well as a country basis. We are also aware that what may seem appropriate in the short term can easily lead to long-term distortions, given the small-scale nature of many economies. The role of the donor is in many ways ambiguous: while we wish to respond to the express wishes of governments, at the same time we need to assure ourselves (and ultimately the Australian taxpayer) that the aid provided is being directed to effective long-term strategies.

This last point is of particular concern when a donor provides a large part of total external flows to a particular country. The assistance provided by donors such as Australia and New Zealand to the small island states represents for many of them a considerable part of their development budgets. Over the long term such flows should clearly have a beneficial effect by, for example, helping to ensure a rational allocation of available resources with the overall objective of bringing about long-term economic viability. The task for the aid donor in such situations can be a daunting one. In the face of day-to-day pressures to build up or even merely sustain the flow of development assistance it is easy for aid administrators and their counterparts in the planning offices of developing countries to lose sight of long-term goals.

The current structure of the economies of island nations points to a continued need for development assistance for many years to come. Australia is committed to do everything possible to improve the quality of aid in terms of the special circumstances of the countries of the Pacific and Indian Oceans. At the same time, we are conscious of the mistakes we have made and of the burden that our administrative idiosyncrasies must sometimes impose on those we are

seeking to help. But we accept that the provision of aid is one of those activities that one does better by learning from past errors. That learning process will undoubtedly be a never-ending one.

J. C. Ingram

Preface

This volume is the outcome of the 1979 Seminar of the Development Studies Centre of The Australian National University. It is the third in the series which annually focuses upon a significant topic in the field of development studies. This year's topic, chosen by the Executive Committee of the Centre, was planned and developed by a sub-committee comprising Dr J.W. Baker, Professor J.C. Caldwell, Mr R.V. Cole, Dr R.J. May, Dr R.T. Shand and Professor R.G. Ward. As is usual, the approach to the theme was interdisciplinary.

During 1979, the seminar topic was explored in two related ways. In the first half of the year, the Centre conducted a rolling seminar within the University. Contributions were invited on a wide range of sub-themes from academics, civil servants and from international and regional organizations. Whenever possible, authors presented their papers in Canberra, which enabled an interchange with fellow-contributors and others. All of those invited had particular interests and expertise. Professor Ward, for example, had just completed a survey of prospects for the agricultural sectors of a range of Pacific island states, as team leader of an Asian Development Bank mission. Dr Kearney has, for some years, been surveying the tuna resources of the Pacific Ocean for the South Pacific Commission. Dr Roux has been conducting socio-economic research in French Melanesia for ORSTOM in Noumea. Mr Dommen has been responsible for the work undertaken on small island states within GATT. Mr Cole has been actively involved in development bank work in the South Pacific region, and Sir Colin Allan was Governor both of the Seychelles and the Solomon Islands when independence was granted to these countries. The specialist contributions from SPEC and the Caribbean Development Bank are, of course, the views of insiders.

It was also thought appropriate to test the views expressed in these papers against those of knowledgeable islanders. Since resource constraints precluded their attendance during the seminar series, the sub-committee sought to organize an international conference for the purpose.

Fortunately, financial assistance for this was generously offered to the Centre by the Australian Development Assistance Bureau (ADAB). Invitations were thereupon issued on a personal basis to a group of senior officials from Pacific and Indian Ocean island states, who are directly involved in policy areas relating to the development questions considered in the seminar papers. Most were able to accept despite heavy responsibilities and pressing commitments, as were a number of observers invited from international organizations that are active in these regions (see Appendix I). The ISPIO Conference took place in Canberra from 3 to 7 September 1979. Professor D.A. Low, Vice Chancellor of The Australian National University, gave a welcoming address to participants reflecting his own strong interest in development issues, and an opening address was given by Mr J.C. Ingram, Director of ADAB, which is included here as a Foreword.

A large number of the seminar papers were distributed to island participants as background material in advance of their arrival in Canberra. Not surprisingly, however, some papers did not reach their mark, victims of the communication problems with small island states. The task of covering the full range of topics and issues canvassed in the two dozen seminar papers during the Conference was thus made all the more challenging. At the Conference, each session focused on a particular topic and discussion of each was led by island participants themselves. All the major issues were covered in the time, and the discussions were judged useful. The Conference had other benefits. It exposed islanders from some of the recently independent states, such as Kiribati, to a wide discussion forum. It was one of the first occasions on which Pacific and Indian Ocean islanders had enjoyed an opportunity for a direct exchange on development issues, and different perceptions of some of the problems were notably evident. For participants from metropolitan countries, there were valuable insights gained from views frankly stated by island participants.

At the end, a series of resolutions about the Conference and its theme were drafted by the islanders (Appendix II). Notably, they thought that the Canberra conference should be the first of a series which would deal with specific development issues, which they named, on a problem-solving basis. They also considered establishing an Association of Small Island States (ASIS). The value of further, more narrowly focused, conferences could be very real for the

islanders, who may well be prepared to set aside valuable and scarce time for these. The problem will be to find the money to support such conferences which inevitably will be very expensive. It is hoped, however, that donors will recognize them as a constructive step by the island states towards a better appreciation of their own problems and towards formulation of appropriate development policy.

It was also clear from the Conference discussions that further research was needed on a variety of issues on the donor side. Not the least of these is the question of the impact of overseas development assistance on the island states. It was therefore a significant and welcome step, announced by Mr Ingram at the Conference, that ADAB was to finance a study of this impact on some of the Pacific island countries through the Development Studies Centre. At the time of writing in 1980, this project had already been launched under the leadership of Dr Diana Howlett. It is hoped that this volume will be a useful source of material for her and for other studies of the problems of small island states.

R.T.S.

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Abbreviations

UNCTAD	United Nations Conference on Trade and Development
ECOSOC	Economic and Social Council
SPEC	South Pacific Bureau for Economic Co-operation
ACP	Africa Caribbean Pacific (States)
EEC	European Economic Community
STABEX	System of Stabilization of Export Earnings
PATCRA	Trade Agreement between Australia and Papua New Guinea
GATT	General Agreement on Tariffs and Trade
ASPA	Association of South Pacific Airlines
UNDAT	United Nations Development Advisory Team
TTPI	Trust Territory of the Pacific Islands
EPZ	Export processing zones
GSP	Generalized System of Preferences
PIIDS	Pacific Islands Industrial Development Scheme
EEZ	Extended economic zones
UNDP	United Nations Development Programme
ODA	Official development assistance
ESCAP	Economic and Social Commission for Asia and the Pacific
UNFPA	United Nations Fund for Population Activities
UNSAID	United States Agency for International Development
IMF	International Monetary Fund
ADB	Asian Development Bank

SPC	South Pacific Commission
ASPAP	Australian South Pacific Aid Programs
DIC	Developing island country
LDC	Less developed countries
IFC	International Finance Corporation
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
EDF	European Development Fund
NDB	National Development Bank
DMC	Developing member country
UNITAR	United Nations Institute for Training and Research
ORSTOM	Office de la recherche scientifique et technique outre-mer
INSEE	Institut national de la statistique et des études économiques
dfc	development finance corporation
EPZ	Export processing zones

Section I

Introduction

Chapter 1

Island smallness: some definitions and implications

R.T. Shand

The UN General Assembly

Request the specialised agencies and other organisations to consider the methods and scale of their operations in order to ensure that they are able to respond appropriately to the requirements of such small and isolated Territories as Tokelau (UN, Report of the 1976 General Assembly, Resolution 31/48, para. 8).

... there may be a group of small isolated countries meeting a specific set of development problems not common to other Developing Island States. The problems are different either in the extreme effects of some factors, or in the existence of some different factors (Government of Niue 1978).

The above two quotations demonstrate both a demand for recognition and official acknowledgment, of the special development problems of small island states. This book explores the various facets of these special development problems. This paper offers a broad approach to the questions involved, first by providing some definitions of smallness, and then by exploring some broad implications of these definitions for the process of development. Many of the issues raised will be taken up and examined in detail in the contributions that follow.

Background

Discussions of the problems of 'smallness' have taken place in various forums for over twenty years. It is notable that they have been continually plagued by the problem of

definition and that those definitions have changed appreciably during that time as 'smallness' has changed in focus.

Systematic examination of smallness dates from the end of World War II with the contraction of colonial empires. In 1957 the International Economic Association conferred on the 'Economic Consequences of the Size of Nations' in Lisbon (Robinson 1960). The general theme then was that countries that were large, in terms of size of internal markets, could expect to enjoy benefits from economies of scale in production. Discussion centred around what the minimum size might be to obtain these benefits. Thus for Jewkes (1960), countries were small that lacked an automobile industry, an aircraft industry and locomotive and heavy machinery building industries. For those discussions, 'smallness' began for countries with a population of 10-15 million.

The gulf in focus between that conference and the seminar series in Canberra in 1979 is not as great as it would first seem, for many of the issues that were relevant to that early discussion are also relevant here. From an economic viewpoint we are concerned with the converse of the Lisbon preoccupations. Whereas they were considering the advantages that come with large size, we are concerned with the disadvantages of smallness. They considered economies of scale that affect the pattern and structure of industry. Our concern is with the converse: the diseconomies of small scale and their impact on economic activity. Lisbon considered the degree of diversification in the firm and the economy. With large size, firms become highly specialized and there is a wide range of economic activities. Smallness reduces the scope for specialization and narrows the range of profitable activities. Large economies exhibit greater adaptability in terms of a capacity to shift resources in response to changing market signals, both for internal and for external markets. Smallness reduces that adaptability and renders countries more vulnerable to external influences.

Developing countries were given limited attention at the Lisbon conference, and small developing nations were considered only at a conceptual level (Vakil and Bramananda 1960). It was concluded that nations small in population, geographical size and economy might together provide a potential base for large-scale expansion, and consideration was therefore given to various arrangements for integration.

Subsequent to the Lisbon Conference, further studies were made by economists of the relationship between size and growth. Chenery (1960) found size to be a significant determinant of patterns of industrial development. However, a number of others showed for the most part no significant relation between national (economic) size and other key variables such as output per head; nor did size explain important features of international trade.¹ These studies generally focused on the criteria of size used at the Lisbon Conference.

It was in 1962, when decolonization was in full swing, that serious attention was paid to the large number of small territories that were amongst those negotiating for political independence. In a wide-ranging seminar lasting till 1964, the Institute of Commonwealth Studies and the various contributors explored the economic, demographic, sociological and political problems of smallness and examined a number of case studies (Benedict 1967). These included states as diverse as the Grand Duchy of Luxembourg, Swaziland and Tory Island off the coast of Ireland, but did include an important study on Polynesia, the first time such attention had been paid to the Pacific Ocean islands (Ward 1967). At that time there was some interest shown by economists in the influence of size on small economies, with particular regard to the question of development of the Caribbean economies (Demas 1965).

A recent academic study of the small country problem arose from a conference for academics and practitioners organized by the Sussex Institute of Development Studies held in Barbados in 1972 (Selwyn 1975). The conference was policy-oriented and focused on five major areas of dependence for small countries: political status, external trade, monetary policies, aid and the operations of multinationals. Discussion centred on the policy options open to island decision-makers in each of these areas. Another conference in Barbados, held two years later, focused on those members of the West Indian Associated

¹See, for example, Fabricant (1960) and Jöhr and Kneschaurek (1960); also Chenery and Taylor (1968) and Kuznets (1971). Work was undertaken on characteristics of small nations arising from international trade, e.g. Erbo and Schiavo-Campo (1969). Lloyd (1968) found that country size explains only a small part of total inter-country variation both in ratios of international trade to national product, and in the degree of commodity concentration in international trade.

States still without independence, and on appropriate political, economic and bureaucratic structures for those countries once independence was achieved.² Further academic literature has developed on the future status and development problems of US and French territories (e.g. de Smith 1972), though not to my knowledge with any special emphasis on the question of smallness.

The United Nations began to take an interest in these problems with a study conducted by its Institute for Training and Research (UNITAR 1971). This was concerned primarily with the role of small countries in international affairs, and the help that could be provided them by the UN and its agencies. Since then one of these agencies, UNCTAD, has established a special section in its organization to assist least developed countries, including small island and land-locked states with international trade problems. In 1973 a panel of experts appointed by UNCTAD met to examine the special problems of developing island countries in what appears to have been the first such study in an international forum (UNCTAD 1973). Recently ESCAP was called upon to take an interest in the developing island countries of the Pacific and has taken some steps to explore how to assist these countries to play a more active development role in the region.³ A number of UN agencies are now actively working in the Pacific region on particular development problem areas such as the UN Development Advisory Team, UNDP, etc.

In the Pacific, regional organizations, involving both developed and developing nations, are actively pursuing programs aimed at lifting some of the constraints on development of island states.⁴ The oldest, the South Pacific Commission, has wide ranging functions to assist regional co-operation in

²A selection of papers presented appeared in Lewis (1976).

³Economic and Social Commission for Asia and the Pacific, *Progress Report on the Implementation of Resolution 173 (XXXIII) on Increased Participation by the Developing Island Countries of the Pacific in the Activities of ESCAP*, Thirty-fourth session, Bangkok, March 1978. Activities have included a seminar for least developed, land-locked and developing island countries (Delhi, August 1978) and a joint mobile seminar on trade promotion for South Pacific countries held at various times during 1978.

⁴Integrated rural development is one of these, see Malhotra (1978).

areas of economic and social welfare.⁵ The more recently established South Pacific Bureau for Economic Co-operation (SPEC) concentrates its regional co-operative efforts in the fields of trade, economic development, transport and tourism. The University of the South Pacific also has an involvement in the study of the development issues of the Pacific region.

The topic of small island state development problems has been raised in yet other forums. It was discussed at the Commonwealth Heads of Government Regional Meeting (CHOGRM) in Sydney and again at the main Heads of Government Meeting in Lusaka in August 1979.

Smallness – some definitions

If it is to be argued successfully that special account should be taken of small island states or territories, it needs to be shown that there are either distinct or else particularly intense problems associated with smallness. To date the uniqueness of these problems has not been demonstrated, and, to a major degree, this can be attributed to problems of definition.

In the forementioned studies there have been a number of attempts to define smallness in terms of objective criteria and of levels for each of these criteria. A review of these attempts suggests a number of points of broad agreement:

- a. There are a number of criteria, each of which is useful in a particular working context of smallness. The most relevant are population, geographical size, and gross domestic product. Thus smallness in manpower resources will be indicated by size of population. Physical area can be used to denote smallness in natural resource availability, while GDP can be used to show it in internal market size. Of these three, GDP is probably the most widely useful but is by no means universally serviceable.
- b. The levels at which the effects of smallness begin to become evident for each of the criteria

⁵See, e.g., South Pacific Commission (1977). The Eighteenth South Pacific Conference (Noumea, October 1978) considered a case for a sub-grouping of states to take account of the special set of development problems of particularly small island states.

have not been determined. Thus far they have been set arbitrarily.

Since the Lisbon Conference in 1957 the range of sizes in nations has widened substantially for all three main criteria. Thus in 1957 it was thought that nations of 10-15 millions were probably too small to secure all the technical economies of scale in most industries. At that time there were few states with populations below one million and very few of these were independent developing countries. This was still largely true in 1964, the year which Lloyd (1968) primarily used for his data. He included small developed countries of which the smallest in population terms was Israel with 2.5 millions. The smallest in GDP terms was Puerto Rico with \$US2.5 millions. For Demas (1965:22) the upper population limit for a small country was 5 million.

Since the early 1960s, there has been a proliferation in numbers at the small end of the national spectrum, with respect to population, geographical size and size of economy. By the time the UNITAR study was finalized in 1969, there were ninety-six small states and territories with populations of one million or less (UNITAR 1971:34-8), of which forty-eight had fewer than 100,000. Under pressure from those which have gained or will obtain political independence, this has changed the focus on size by shifting the arbitrary base lines for smallness downwards. The 1973 Report of Experts to UNCTAD (1973: Statistical Annex, Table 1) found that of 52 island countries and territories, 39 had populations of less than one million in 1970 and, of these, 27 had less than one-quarter of a million. In terms of physical area, only 15 of the 52 were more than 10,000 sq. km in land area.

Our concern here is with small island states and territories in the Pacific and Indian Oceans. It was decided in this paper that, in view of the broad coverage of subject matter to be included in the volume, smallness should be considered in terms of all three criteria outlined above: population, geographic size and GDP. We will therefore be exploring the effects of smallness on development of each of these three factors. The question remains as to where to set the upper limits for each of these for the purposes of our examination. These three criteria allow theoretically for many combinations, of which one or more may denote smallness, another not. Schiavo-Campo pointed out in 1975 that:

the saving grace, fortunately, is that with notable exceptions the several possible criteria of size yield the same broad groupings of countries ... A territorially small country usually has also a small population, a limited resource base, a small supply of savings and, as a result, a small absolute national income (Erbo and Schiavo-Campo 1969:187).

A listing of the twenty relevant Pacific and Indian Ocean island states and territories (Table 1) allows this assertion to be tested. The list notably excludes Papua New Guinea which, with a population of around 3 million, a land area of 462,243 sq. km, and a GDP of about \$A1 billion, would be unlikely to experience the types of smallness problems of its Pacific neighbours. For population, the data show only two countries, Mauritius and Fiji, with populations of over one quarter of a million, with the former largest in relative terms at 875,000. At the other extreme are five states and territories each with 10,000 or fewer inhabitants. The same considerable range in size is evident geographically, with only the Solomon Islands, New Caledonia, Fiji and New Hebrides over 10,000 sq. km in land area. Again the lower extremes of size are evident with Tuvalu, Nauru and Tokelau.

Population densities have considerable bearing on development prospects and problems and these show a wide range. The heaviest concentrations are in the Maldives and on Mauritius with over 400 per sq. km. Those with the largest areas also have amongst the lowest population densities: Solomon Islands, New Caledonia, New Hebrides and Fiji. Also, at least two of the smallest in terms of population, Nauru and Tuvalu, have relatively dense populations, while in Niue's case the island is lightly populated.

The third main measure of size, GDP, again shows a considerable range amongst islands and territories, from a maximum of around \$A500 million reached or almost achieved by New Caledonia, Mauritius and Fiji, to minima as low as \$A12 million for Cook Islands, \$8 million for the Maldives and only \$1 million for Niue. Others such as Tuvalu and Tokelau, for which data are not available, would also be at the Niuean level. While no national income data were available for Nauru, total exports, which provide a broad

Table 1
Indicators of size for selected island states and territories
in the Indian and Pacific Oceans

State or territory	Total population ^a ('000)	Land area (sq. km)	Population density (persons/sq. km)	GDP at factor cost ^b (\$A million)	GDP per capita ^b (\$A)
<u>Indian Ocean</u>					
Mauritius	875	2,096	417	497 (1976)	568
Maldives	143	298	480	8 (1976)	56
Seychelles	62	404	153	39 (1976)	629
<u>Pacific Ocean</u>					
Fiji	592	18,272	32	483 (1976)	816
Solomon Islands	206	28,530	7	44 (1975)	214
Western Samoa	152	2,935	52	38 (1976)	250
French Polynesia	137	3,265	42	441 (1975)	3,219
New Caledonia	136	19,103	7	502 (1976)	3,691
Trust Territory of the Pacific Islands	129	1,832	70	98 (1975)	760
New Hebrides	100	11,880	8	66 (1976)	660
Tonga	90	699	129	28 (1976)	311
Guam	87	541	161	203 (1974)	2,333
Kiribati	54	684	79	36 (1976)	667
American Samoa	31	197	157	116 (1972-73)	3,742
Cook Islands	19	240	79	12 (1975)	632
Wallis & Futuna Islands	10	255	39	n.a.	n.a.
Tuvalu	8	26	288	n.a.	n.a.
Nauru	7	21	333	n.a.	n.a.
Niue	4	259	15	1 (1973)	250
Tokelau	2	10	160	n.a.	n.a.

^aMid-year estimates for 1977 except for Maldives (1976) and Seychelles (1978).

^bMain source (SPC) notes that these figures are not strictly comparable. Some are for financial and others for calendar years, and no correction is made for inflation. In the National Income figures, GDP at factor cost was not always available.

Sources:

- Population - For Pacific islands, South Pacific Commission, *South Pacific Economies: Statistical Summary*, Noumea, March 1978.
 - For Maldives, Asian Development Bank, *Key Indicators*, vol. IX, no.2, Manila, October 1978.
 - For Seychelles, Europa, *Africa South of the Sahara*, Europa Publications, London.
- Land use - Pacific islands, SPC, *South Pacific Economies: Statistical Summary*.
 - Indian Ocean islands, IBRD, *World Bank Atlas, 1978-79*, Washington, 1979.
- GDP - Pacific islands, SPC, *South Pacific Economies: Statistical Summary*.
 - Seychelles, UN, *Monthly Bulletin of Statistics*, 1977.
 - Maldives, IBRD, *World Bank Atlas, 1976-79*.
 - Mauritius - IMF, *International Financial Statistics* (monthly), Washington, 1977.

indication, were around \$A37 million for 1975-76.⁶

Nauru's export income is derived almost wholly from trade in phosphate. This ensures a remarkably high per capita income for the small Nauruan population by any standards, and well in excess of that of any other island state under consideration here. The economic size of other states and territories is also substantially influenced by the contribution of single industries. New Caledonia is the world's second largest producer of nickel ore. Guam is now a major tourist centre. It received over a quarter of a million visitors in 1977, whose spending was estimated at over \$US110 million. American Samoa benefits from the operation of two large US fishing companies each with a cannery. For these reasons, GDP per capita in the above states and territories are well above levels of the remainder.

There are good reasons for being cautious in use of per capita income figures, particularly in making comparisons. For example, it is difficult to judge living standards by such a measure. Also, methods differ for valuation of production in the non-monetary subsistence sector. Such valuation is difficult and has not been adequately accomplished in Table 1. If this adjustment was made, it would be apparent that few, if any, of these countries would currently lie below the so-called poverty line, and most would be well above, implying quite high, if traditional, standards of living and wellbeing. This has implications for the directions of development, and particularly for external development assistance, as it would largely exclude one important criterion for such assistance, that of helping to satisfy basic needs, and would restrict access to aid on soft terms.

The selected island group can be examined with the help of a typology given by the three above characteristics taken together (Table 2) in which each of the three size indicators has been arbitrarily divided into three sub-groups,

⁶South Pacific Commission, *Overseas Trade 1977*, Noumea December 1978, Table 1, p.6. This covered trade with Hong Kong, Australia and New Zealand only, as recorded by these countries. Australia and New Zealand purchased 92 per cent of phosphate exports in 1976-77. It was noted that this value of exports seemed to be understated since it was based on a nominal phosphate price below market levels.

small, very small and micro. For Schiavo-Campo's assertion to hold true, the selected states should be distributed on the diagonal of Table 2, i.e. in the (small)³, (very small)³ and (micro)³ categories. Table 2 suggests that this does largely hold true. Fiji is clearly least affected by smallness problems with a relatively sizeable population, land area and economy. At the other extreme, five island states have micro status with respect to all three size measures, and can therefore be expected to experience the most intense effects of smallness. Four have an intermediate status of being very small on all counts, thus giving eight in all that closely fit the predicted pattern. The exceptions are explained as outlined above. Those with larger than expected economies have the advantage of mineral resources (Nauru, New Caledonia), large-scale industry (American Samoa) or well developed tourism (Guam). The Solomon Islands and New Hebrides have relatively small populations and economies by comparison with land areas. The population of Mauritius is large compared to its land area and thus has a high population density. The populations of the Seychelles and Maldives are larger than expected for micro land areas, giving high population densities in both. With a micro-economy as well, the Maldives is worst off of all, with a low per capita GDP.

Implications

If small land states and territories do have distinct development problems, they will be due to the influence of smallness in any one or combination of the three factors used above to define size. Accordingly it is necessary to explore the implications of smallness in each of these variables. These deserve detailed treatment and will be considered in depth in later papers, but it is worthwhile at this stage to raise the relevant issues arising from each one. In so doing, implications are considered in relation to the broad objectives of island states which in this discussion are assumed to be:

1. to maintain or achieve political independence;
2. to increase the living standards of the population;
3. to promote greater economic self-reliance;
4. to preserve the values, traditions and integrity of island society.

We therefore turn to the questions of how and to what extent smallness does influence the achievement of these objectives.

Smallness in land area. In general, the smaller the land area of an island state or territory :

1. The narrower is the range of production conditions and thus the range of primary commodities produced. The coral atolls of the Maldives, Tokelau and Tuvalu are extreme examples where coconut production and fishing provide virtually the only opportunities for earning export income. This can lead to greater vulnerability of output to natural hazards. The smaller the country the more devastating the effects that cyclones, floods and drought can have, and thus the wider the fluctuations will be both in subsistence and export production.
2. The lower is the total volume of output. At low levels, unit costs of processing, transport and marketing are markedly higher for export commodities, and weaken the competitive position of these exports in world markets. There is typically a significant disadvantage for all these islands owing to the geographic isolation within the two oceans. This is further intensified if, as is frequently the case, there is fragmentation of the state or territory into small and scattered islands, e.g. Cook Islands, Maldives, Tuvalu and Tokelau. Fragmentation is also a problem for larger island groupings, e.g. Fiji. Thus isolation and fragmentation aggravate the competitive disadvantage of low export volume.
3. The greater is the concentration of exports in particular overseas markets, both because export categories are few, and because total output of each is low.
4. The greater is the market vulnerability. Small producers are, of course, price takers in the market and are subject to the fluctuations of prices in world markets. There is less scope for counterbalancing or stabilizing these effects in commodity export earnings if the composition of exports is characterized by a single product or very few commodities. Further, if there is dependence on a single country market, island states will be more vulnerable to import policy changes than will be the case if markets are more diverse, though, equally, this could work to the advantage of these countries if special terms of market access are offered.

Table 2

Classification of selected Pacific and Indian Ocean states and territories by size
of population, land area and domestic economy

Population	Land area								
	Small 10,000-30,000 sq. km			Very small 500-10,000 sq. km			Micro < 500 sq. km		
	Economic size			Economic size			Economic size		
	Small GDP>\$A100 million	V. small GDP \$A25- 100 million	Micro GDP<\$A25 million	Small	Very small	Micro	Small	Very small	Micro
Small (> 250,000)	Fiji			Mauritius					
Very small (25,000 to 250,000)	New Caledonia	Solomon Islands New Hebrides		French Polynesia Guam	W. Samoa TTPI Tonga Kiribati		American Samoa	Seychelles	Maldives
Micro (< 25,000)								Nauru	Cook Is Wallis & Futuna Tuvalu Niue Tokelau

As already noted, the extent of land area does not always accurately represent available resources. Mineral deposits such as the phosphate on Nauru and nickel ore on New Caledonia greatly alter the resource situation, and can remove area as a constraint. A possible further prospect in this regard lies in the economic potential of the marine and seabed areas surrounding these small island land masses. The 200-mile exclusive economic zone has at least theoretically provided island states with huge sea and seabed resources. Later papers in this volume will examine these resources and the possibilities for island states of capturing the benefits from their exploitation. Without them, smallness in land area will clearly continue to limit the achievement of higher living standards and greater economic self-reliance in most small states, and particularly those in the micro category.

Smallness in population. The effects of smallness in population are twofold. First, in production terms it restricts the total volume of marketed, and typically exported, commodities. Low volume again leads to high costs of processing, transportation and marketing and to a weak competitive position for an island state.

Second, the achievement of higher living standards entails not only rising levels of marketed production and income that will enable purchase of goods, but also the provision of a wide range of services. The smaller the population in the island state or territory is, the less likely it will be profitable for individuals to offer these services privately (e.g. doctors, dentists, etc.), and the greater will be the pressure on government to provide them. Indeed government is called upon to supply a wide range of services to meet the needs of the political and socio-economic system.

The smaller the country the sooner these two sources of demand for manpower begin to compete. To a limited extent this can be deferred by imposing heavier demands (longer working hours) and varied responsibilities (a range of hats) on those available, but the point is very soon reached where demands for manpower in the public sector will, by drawing off labour, restrict further output expansion in the private sector. Furthermore, as was recently pointed out (Government of Niue 1978:2), there is a fragility in the

system. With the manpower chain thinly stretched in the public sector, a single break in it, through sickness, absence for training, or emigration, can cause disruption and considerable loss of efficiency.

The constraint of limited output in the private sector from a small population base can be overcome by the encouragement of investment by foreign enterprise provided resources are not also limiting, but further output is then obtained at the expense of some local control over resource use. Manpower limitations in government and in the provision of public services can be met by overseas recruitment of personnel, but may thereby increase economic and technical dependence.

Economic smallness. Earlier in this paper it was pointed out that discussion of the size of nations initially focused on the size of markets in the private sector that generated economies of scale in production units. Our concern here centres on the diseconomies of small-scale production that bedevil small island states, which, with their typically small to micro economies, have small, poorly developed internal markets. This is a particular deterrent to the development of an industrial sector in these islands and results in heavy reliance on imported goods.

In the past, this problem has not greatly affected expatriate enterprise in the rural sector since, with its export orientation and access to substantial financial resources, it has often been able to benefit from the economies of large-scale production and processing technology. The small-scale island producer, however, has enjoyed none of these benefits. He has typically evolved as a mixed farmer, satisfying household needs for subsistence foods and producing a modest surplus of an export crop for the market. The limited internal market for food has not encouraged specialization amongst producers which would allow some to concentrate wholly on food, supplying others who could concentrate on export crop production. Fragmentation in many island states has accentuated this disadvantage.

Diseconomies of small scale extend to the public sector as well. Investment in economic infrastructure, for example main roads, ports, airstrips and communication facilities, to encourage production for the market in the rural sector, is indivisible, and thus costly in per capita terms. In larger countries there is frequently some

prospect that, with such incentives, there will be an increase in production that will provide an economic justification for the capital expenditure. Similarly government services, sometimes provided initially in processing, transport and marketing to enable effective market linkage (on an infant industry basis), can be withdrawn as private or co-operative enterprise is attracted by expanding business prospects. In small island economies, the volume of output generated may neither enable capital costs to be recovered, nor be sufficient to attract traders and processors. Provision of these services may then necessitate a permanent subsidy. Again this is all the more likely if island states are fragmented and because they are isolated. Thus, overall, the total per capita cost of providing economic infrastructure and services can be expected to vary inversely with the size of the rural sector.

Similar arguments apply to the per capita costs of various social and general administrative services. While it is possible to a certain degree to scale down education, health, legal and other social service systems to match small populations, the minimum levels of these considered acceptable by island communities in the light of desired living standards are such that they would adequately serve much larger numbers. Niue, for example, sets her health services at a level which requires at least three and preferably five doctors, which could satisfactorily meet the needs of a population of 20,000, five times that currently on Niue (Government of Niue 1978:2). Items of plant and equipment and some buildings are much underutilized for the same reason, all contributing to extremely high per capita capital and recurrent costs of social services. Fragmentation substantially worsens this situation.

The public sector's role in the development of island states is considered crucial, and requires rapidly expanding expenditures on a wide front of internal and external activities of government considered desirable for a modernizing community. Economic smallness greatly limits the scope for raising internal revenues to meet these needs, and the gap created can be narrowed only by recourse to external development or budgetary assistance. Thus, given society's objectives, smallness inevitably generates a high level of external economic dependency.

The case of the island micro state

A profile of an island micro state can be expected to exhibit all the above-mentioned disadvantages of smallness. It shows a low level of output of one or a few export commodities, which is vulnerable to natural production hazards because of limited land area and to price fluctuations in overseas markets, and probably also to the import policies of its one or very few customers. Its remoteness, and the relatively high cost of processing, transporting and marketing export produce place it at a competitive disadvantage in these markets.

Domestically, the community's demand for higher income levels and sophisticated government services is strong, but with low levels of rural sector incomes, only partly monetized, and few idle resources available for exploitation, there is very limited scope for generating the necessary public revenues for the wide range of government activities considered desirable. Furthermore, its small population proves expensive in terms of per capita capital and current costs of government services, and yields a low return per unit of those economic services provided to stimulate production.

Thus, with objectives of higher living standards and preservation of the integrity of island society, the demand for public sector expenditures can be met only with heavy recourse to external assistance. This inevitably involves sacrifice of one objective — economic self-reliance — to satisfy others — higher living standards and a low net out-migration. To reduce the level of public sector expenditure in a quest for greater economic self-reliance may quickly lead to dissatisfaction amongst the island's population with living standards, and to a high rate of emigration.

This brief profile will not adequately describe the characteristics of all the island (micro)³ states of Table 2. For example, amongst the five listed, Niue has the advantage of being a one-island state. The smallness problems of the other four are magnified by fragmentation. However, in the light of the discussion above, it is our view that the call to the SPC by Niue quoted at the beginning of this paper has some basis in evidence. While it is debatable whether island micro state problems stem from factors different to those that affect other island states or developing

countries, it seems fair to suggest that they 'are different ... in the extreme effects of some factors' common to developing island and other states.

The further question remains as to whether other island states listed in Table 2 exhibit in part some of the problems generated by smallness. Nauru, for example, with the advantage of high export income from phosphate mining, is freed from a number of the smallness problems of economic size. GNP is large enough to provide adequate public finance for social and economic services, and to eliminate external financial dependence. It still, however, suffers from the smallness problems of land area which severely limit employment opportunities on the island, and therefore could give rise to social problems. The Maldives has a larger population base, but with micro size in land area, population density is very high which, with its substantial subsistence needs, greatly reduces the scope for expanding the domestic economy on the existing natural resource base. The Solomon Islands and New Hebrides have substantial natural resources but a relatively small population and economy. The latter two factors are limiting in the short run, but with substantial natural resources as yet unexploited, the policy options for development are far wider than those of the island micro state, giving them greater long run prospects of meeting each of the assumed objectives.

These examples serve to suggest that the development situations of the range of small island states discussed in this paper do differ in significant ways and that policy options open to the different island categories distinguished in the typology will vary accordingly. Later papers in this book will examine these options in greater depth.

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Section II
Agriculture,
Fisheries and
Remoteness

Chapter 2

Agricultural options for the Pacific islands

R. Gerard Ward

Agriculture in the Pacific islands takes place within a framework of aspirations, social forms and commercial imperatives, all of which are changing rapidly. These changes are tending to accentuate the disadvantages of small size of land area and population, fragmentation of land areas, and isolation from major market sources or imports. Over the last one hundred years most Pacific islanders have opted for increasing participation in the cash economy. The principal sector for this participation has been agriculture. Unfortunately the characteristics of small size, which may be beneficial in a subsistence economy, become increasingly disadvantageous in a commercial economy. As aspirations change in response to greater awareness of the outside world, these disadvantages of small size are further accentuated.

This paper is based on data collected during a survey of the current state of agriculture and rural development in seven Pacific island countries in the earlier part of 1979. The study was carried out by a multi-disciplinary team of nine under the auspices of the Asian Development Bank (Ward and Proctor 1980). The countries concerned were the Cook Islands, Fiji, Kiribati, Papua New Guinea, the Solomon Islands, Tonga and Western Samoa. Papua New Guinea is excluded from the present paper. Although specific reference is not made to other small countries in this region, many of the general tendencies noted in the six states under consideration are also found in other Pacific island countries.

Agriculture plays a major role in the economy of all of the six countries, whether measured in terms of employment, contribution to GDP or to export earnings. Agriculture in all the countries is based on a relatively limited environment. This is particularly true in the case of atolls or raised limestone islands which include all the islands of

Kiribati, all of the Northern Cook Group, and some islands in all the other countries except Western Samoa.

From the viewpoint of agriculture the atoll environment is one of the most limiting in the world. The inhabitable islets of atolls rise little more than 2 or 3 metres above sea level. They have virtually no soil, being composed solely of coral rubble or sand overlying the coral limestone of the atoll. Surface water is non-existent and both vegetation and the human population are dependent on the lens of fresh water which floats on the denser seawater which permeates the limestone. The fresh water lens, formed by rainfall, is often susceptible to drought or incursions of salt water. Very few crops can be grown under these conditions, and the coconut is the only significant cash crop.

Many of the Pacific atolls lie within or on the margins of the tongue of relatively low rainfall which extends across the equatorial Pacific from the west coast of the Americas to approximately longitude 165°E. Within this area rainfall variability is very high and the resulting droughts make agricultural activities precarious. Exposure to hazards such as tsunami or tropical cyclones introduce a degree of environmental risk to small islands which larger land areas are unlikely ever to experience.

In the case of the higher islands, and particularly in Fiji and the Solomon Islands, landforms and soils are much more varied and the range of environmental conditions for agriculture is much wider. Soils derived from volcanic, sedimentary and metamorphic materials offer suitable conditions for a broader range of crops. But even here the small size of many of the islands, when combined with their relative isolation one from the other, imposes transport and economic limitations on the agricultural potential. Furthermore, it must be noted that even in the larger countries very high proportions of the land area have been shown to be unsuitable for commercial agriculture. For example, in Fiji only 19 per cent of the country is 'first class' land suitable for permanent agriculture (including pastoral farming) without improvement, while a further 11 per cent is suitable for permanent agriculture after minor improvements. Not less than 38 per cent of the country is considered 'quite unsuitable' for agriculture (Twynford and Wright 1965:218-19).

Soils in Western Samoa are derived from olivine basalt and are relatively fertile, yet 51 per cent of the land area

has soils of 'low-to-very-low' natural fertility or is too steep or poorly drained to be of significant use for agriculture. A further 35 per cent is generally too rocky for mechanized agriculture (Wright 1963:88-9). The Solomon Islands has more unused land suitable for agriculture than any other Pacific island country (excluding Papua New Guinea) but even here the fragmentation of this land into over forty separate areas scattered throughout the archipelago severely limits the opportunities for its development within the commercial sector (Hansell and Wall 1976).

In terms of agricultural potential, the above features of the land environments accentuate the small size of the island countries. In many cases the limited land area precludes the establishment of large-scale operations which might achieve economies of scale in production. Furthermore, insularity, isolation and fragmentation increase the problems of aggregating export produce to achieve scale economies in marketing or in the provision of infra-structural services or imported inputs for agricultural production. In recent years the relative isolation of many of the Pacific islands has been increasing as technological changes, spurred by commercial imperatives, have led to increasing size of vessels (or aircraft) and cargo handling units. This trend, advantageous to larger countries, has been detrimental to the small archipelagic states of the Pacific and no clear technological solution is in sight.

In four of the countries under consideration, agricultural exports contribute over 50 per cent of the total exports. With the cessation of phosphate exports in 1979, Kiribati's exports have been restricted almost entirely to copra. Only the Solomon Islands has shown any significant trend away from dependence on agricultural exports in recent years with fish and timber contributing 45 per cent of exports in 1978. In the last year for which figures are available (1977 or 1978), four of the six countries had trade deficits, the Solomon Islands and Kiribati being the exceptions, and Kiribati will certainly have a deficit in 1980.

Fishing within the 200-nautical mile Extended Economic Zones (EEZs) offers opportunities for some countries, especially in Melanesia, but fishing for migratory species is not likely to provide more than a partial solution to the economic problems of countries such as Kiribati, Western Samoa or Tonga; neither is manufacturing. Against this background, and the slight chances of finding other

significant sources of foreign exchange, the emphasis placed on boosting agricultural exports in most development plans is understandable. So is the hope that expanded commercialization of agriculture will improve the revenue base for Pacific island governments. If economic strategy is to be based on export agriculture, and agriculture is to be the source for increased government revenue, there are important implications for the nature of Pacific island agriculture in the mid-term future.

Aspirations and labour supply

A striking feature of several of the Pacific island states is the relatively high level of the aspirations held by many islanders. In the absence of other models, the desired levels of material living tend to be derived from the income levels and life styles of New Zealand and the United States, where large numbers of Polynesians from the Cook Islands, Tonga, Western Samoa, Niue, and the Tokelau Islands now live. Whereas such aspirations might be considered unattainable and unrealistic in most developing countries, in much of Polynesia they are not so unrealistic as many do attain them by migration, by employment in the public service, by dependence on remittances, or by provision of basic services through international aid.

The effects on agriculture of international emigration, and of internal out-migration, in several of the small countries of the Pacific islands do not appear to have been widely recognized. In most of these countries rural populations are now relatively stable. Emigration to New Zealand resulted in a 15 per cent decline in the total resident population of the Cook Islands between 1971 and 1976. In 1976 only 21 per cent of the Cook Islands workforce were engaged in agriculture compared with well over 40 per cent in 1966. In Western Samoa the number employed in agriculture, forestry and fisheries fell by 10.5 per cent between 1966 and 1976. In Tonga 74 per cent of the economically active population were engaged in agriculture in 1966 compared with 51 per cent in 1976.

Although the evidence has not been analysed as thoroughly as it might, it appears that several of the Pacific island countries now experience a significant labour shortage in commercial agriculture. This is not due solely to out-migration (e.g. to urban centres) or emigration, but also to the nature of the social and economic interaction between

subsistence and commercial activity in the mixed subsistence-cash cropping mode of production, and to the relative real rewards to be attained in subsistence as against commercial agriculture, and in agriculture as against non-agricultural wage employment. There are few avenues in which Pacific island smallholders operating in the mixed subsistence-cash cropping mode can expect annual gross earnings of over US\$1000. This compares unfavourably with incomes achievable locally in the wage sector, or after emigration, and appears to depress the numbers willing to engage in fully commercial agriculture, or to place greater emphasis on the commercial segment of the mixed subsistence-cash cropping mode.

For those who do wish to participate more fully in commercial agriculture, systems of land tenure, social organization and labour mobilization, which are based primarily on the requirements of subsistence modes of production, frequently inhibit effective participation in cash cropping. This is not to say that the commercial motivation should always have primacy. There may be advantages to the society as a whole such that avoidance of stress on social structures takes precedence over commercial goals. Yet many Pacific island farmers are now caught between their own aspirations for higher levels of material living, which they hope to meet through commercial agriculture, and the demands on their time from kin, traditional leaders, church or other community groups. Commercial agriculture often requires long and regular periods of work. Yet alternative calls on time to participate in village activities are difficult to ignore, especially when the farmer himself is partially dependent on reciprocity for assistance. Until a significant proportion of subsistence-oriented labour is specialized or rewarded with cash rather than reciprocity on demand, commercial farming projects are likely to face sub-optimal labour inputs. Acceptance of this condition is often a rational, welfare-maximizing strategy for those operating in a viable mixed subsistence-cash cropping mode, but changing attitudes and commercial and governmental pressures are making this less and less the common situation throughout the region.

Agricultural production systems

Four basic agricultural production systems can be recognized in the Pacific islands. The first, oldest, and now the rarest of these is the integral subsistence system in which virtually all the requirements of the community are produced locally; there is little specialization of

labour; monetary exchange is absent and production and consumption units tend to coincide. Social organization is intimately related to the whole production and consumption system. The forms of technology employed vary from swidden cultivation with simple tools through to complex systems of water control, terracing and creation of garden plots. Land tends to be held by the community and any form of individual or nuclear family ownership normally lies in the crop rather than the land, though terraces or other permanent man-made gardens may offer exceptions to this. Labour tends to be mobilized, as part of the total social organization and operation of the community, on a village or clan-wide basis for many activities, although it is important to note that agricultural work was frequently carried out on an individual or extended family basis rather than by the community as a whole.

In the integral subsistence system a wide range of root, tree and other food and 'industrial' crops are grown. Except in the case of irrigated taro gardens and on the atolls, most of the food gardens are multi-specied and multi-varietal. Apart from advantages of continued productivity over a longer period than is possible with mono-varietal or mono-species gardens, the very mixed character of swidden gardens in this production system provides insurance against viral and other diseases, or hazards such as drought. It also assists in the provision of a widely varied diet.

The integral subsistence systems were most varied and complex in the more favourably endowed islands of Melanesia. Within Polynesia and Micronesia environmental limitations, most marked on the atolls, often limited the possibilities for elaborations such as irrigation or terracing. The absence of soil on the atolls meant that the range of crops which could be grown was extremely limited and in general atoll dwellers depended primarily on the coconut and pandanus and, in some cases, on elaborate techniques of cultivating *Cyrtosperma chamissonis*.

The integral subsistence mode of production in its 'pure' form is now extremely rare in the insular Pacific and has generally given way to the second production system, that of mixed subsistence-cash cropping. Shortly after the arrival of European traders, administrators and missionaries, Pacific islanders began to add introduced crops to their agricultural repertoire and to sell (for cash or barter) to visiting European ships or the resident European population.

The area under coconuts in particular was extended rapidly in response to government or missionary edict, or perceived market opportunities. For the most part the accommodation of this additional production was made possible by the introduction of steel tools, the reduction in intergroup warfare and, increasingly, through the diversion of effort from the minor and more labour demanding traditional crops or cultivation systems. The past century or so has seen a steady disintensification of subsistence agriculture through much of the region as labour has been diverted towards commercial rather than subsistence production.

Until relatively recently, the overwhelming proportion of smallholder production within the Pacific has come from the mixed subsistence-cash crop system. As noted above this system creates inbuilt tensions between its separate components. It is no longer integrated into the whole community structure and, apparently inevitably, appears to stimulate increasing individualism. It is clear that this system cannot fully meet a number of the increasingly rigid requirements of modern commercial marketing. This problem is considered in more detail below.

The third agricultural production system, the plantation or estate mode, is entirely exogenous and, in the past, apart from its requirements of land and labour, operated in almost complete isolation from indigenous production systems. Expatriate owned and managed, and with relatively large resident labour forces, estate production was directed almost entirely for export. Units were relatively large and mono-cropping predominated. Economies of scale and increasingly skilled management were the keys to success in this mode of production.

In recent years a fourth agricultural production system has emerged in a variety of forms. In this system certain features of the 'plantation' mode of management (but not necessarily production) are applied to provide, as externalities to the producer, certain economies which can be internalized in a large-scale production unit. In other words, the benefits of skilled management and of large-scale production are achieved through the aggregation of smallholder production in centralized marketing, and sometimes management. The first example of this to emerge in the region was in the sugar industry of Fiji. When the indentured labour system collapsed in the second decade of the twentieth century the industry converted from an essentially

plantation system to one of smallholder tenant farmers producing under the general direction of the sugar millers, with provision of some inputs, and processing provided by the millers. More recently the oil palm industry of Papua New Guinea has been developed on the nucleus estate with associated smallholder principle, in imitation of the Malaysian Federal Land Development Authority projects. Other cases include the Tongan Farmers Federation producing tomatoes and other fresh vegetables for export to New Zealand, nucleus farm and associated smallholder cattle projects in Papua New Guinea, and proposals for citrus production in Fiji. Thus a smallholder farming system under some element of centralized management and marketing is emerging as a response to the evident failure of the subsistence-cash cropping mode to meet the demand for both increased export production (and revenue generation) and increasingly higher levels of income for individual farmers.

Problems in meeting goals

The modes outlined above suffer from constraints — economic, social or political — in attempting to meet the demands both of governments seeking revenue generation by export expansion, and of individuals seeking higher levels of material wellbeing. It is self-evident that the integral subsistence systems cannot contribute to government revenue. Neither do they produce an entry to the monetary sector. They do, however, with some exceptions such as under conditions of population pressure, provide a relatively robust and ecologically sound basis for a no-growth economic system with limited opportunities for variation in individual goals. This may mean that such systems could regain their lost significance for some areas if appropriate national or individual goals are chosen.

For most of the last hundred years the greater share of the agricultural exports has come from the plantation sector except in the case of Kiribati, Tonga and the Cook Islands, and the infrastructure of commerce has been built largely on the basis of plantation production. Expansion of the estate sector *per se* is now restricted for political or other reasons. Few Pacific island countries are anxious to see expansion of foreign ownership within agriculture, although there are signs of some relaxation of this attitude in some countries. Furthermore, the small-island countries of Kiribati, the Cook Islands, Tonga and Western Samoa have limited land, in the absolute sense, on which such large-

scale development could take place. On the other hand the need for government revenue at both national and sub-national levels has led to further consideration of the 'state farms' concept. It is likely that within the next decade, government-owned plantations, or large cattle or other primary enterprises, will become more common in this region. The success of the Solomon Islands in developing a favourable balance of trade based on enclave type development in oil palm, timber, fisheries and, to some extent, rice production is indicative of the attraction such enterprises may have for other governments. However, even where the physical resources of land exist, the constraints of alienation imposed by land legislation do restrict the possibilities for extensive development in the plantation mode. There are, however, a number of incipient programs for large-scale export-oriented development which fall into the plantation mode system for at least part of their developmental life. For example, it has been suggested that the cocoa industry of Fiji might be encouraged through the establishment of cocoa plantations by government on Fijian land. These plantations would be developed by the state and, after all or a proportion of developmental costs had been recouped from the initial production, the venture would be turned over to the land owners for continued operation either as single units or as groups of smallholder farms.

For the last thirty years most emphasis in the encouragement of export agriculture has been given to production in the mixed subsistence-cash cropping system. The production of coffee in Papua New Guinea, cocoa in Western Samoa, citrus in the Cook Islands and copra in all of the countries has been promoted within this system. The banana export trade, which was extremely important for Tonga, Western Samoa and Fiji until relatively recently, was also based on production by village farmers operating within the mixed subsistence-cash cropping mode. For a variety of reasons it seems unlikely that this production system can continue to meet the growing demands which both governments and farmers place on commercial agriculture. In the first place, apart from returns from export levies, which for obvious reasons governments are reluctant to increase, relatively little revenue is obtained from incomes generated by smallholder agriculture. In most cases the impossibility of collecting income tax from self-employed smallholders, even where their incomes exceed that which would be liable for taxation if obtained within the wage sector, means that smallholder agriculture is of limited attraction to

government as a revenue source. From the viewpoint of many farmers the area of land available to them is frequently inadequate. Absolute land shortage or social barriers to access to land prevent the establishment of holdings which would be commercially viable in a dominantly commercial system. For example, in Kiribati the total land area of the Gilbert Group, excluding Tarawa and Banaba, would be sufficient for only about 3000 coconut holdings of a size sufficient to provide a gross income of US\$1000 with average copra prices. These islands already have a population equivalent to over 5000 families and few, if any, commercial alternatives to copra production are available within agriculture. The same situation exists in parts of the Cook Islands and Tonga and, although no careful analysis has been done, the problem of inadequate land for fully commercial farming also exists in some parts at least of the better endowed islands of Melanesia.

In almost all Pacific island countries infrequent or irregular inter-island shipping services restrict the possibilities for development of export production of anything other than non-perishable products. Furthermore, the role of inter-island shipping services as providers of agricultural inputs and consumer goods, which are key elements in the motivation of farmers for increased production, tends to be underemphasized in many assessments of shipping services. In a country like the Solomon Islands, the whole prospect for development of the quite extensive areas of potentially productive land depends on a solution to the problem of providing adequate transport and service systems for outer islands.

One of the important trends in export agriculture, particularly items such as bananas and other perishable foods, has been for the standards of packing and marketing to rise in the importing countries. An example is provided by the import of bananas into New Zealand. Until the mid-1960s, Fiji, Tonga and Western Samoa supplied the whole market and production came almost entirely from small village producers. When problems of disease, shipping and hurricane damage prevented these countries from maintaining a supply (a situation in itself closely related to their small size) New Zealand turned to Ecuador for its banana requirements. Despite the longer distances from source of supply, the Ecuadorian fruit arrived in New Zealand in much better condition than the average Pacific island product. In particular, the standardized size, evenness in stage of

ripeness and absence of marking and bruising all made the product much more attractive to wholesalers, retailers, and, apparently, the consumers, despite some preference for the taste of Pacific island bananas. These qualities, which are now what the market prefers, are achieved through large-scale production employing a high level of agronomic technology, careful handling and packing, grading for size, and the chemical control of the ripening process. Until such time as the Pacific island countries can match the reliability of supply, standardization of product, and quality of production from Ecuadorian estates, there is little prospect of recapturing the New Zealand market. It is doubtful if this can be done under the mixed subsistence-cash cropping system.

The same type of problem bedevils attempts at other forms of export production. Several of the Polynesian countries now export root crops to New Zealand but it is unlikely that production from smallholders, the present major source, can match that from larger holdings in terms of price. The export of tomatoes, beans and other vegetables to New Zealand for the winter market also suffers from the inability of small growers to produce a sufficient volume to allow effective grading and quality control. In the case of tomatoes, the political influence of New Zealand glass-house growers has led to imposition of quotas. The frequently suggested solution of processing that part of the crop which is surplus to export requirements does not appear to be a viable alternative as processing, with its high capital investment, also has imperatives in maintenance of supply at rigid levels of uniformity and quality which are difficult to meet when production is by scattered smallholders only partially commercialized.

Most of the strategies which have been proposed for raising the income levels of Pacific island smallholders call for some form of more intensive agriculture and require greater labour inputs into the commercial part of the agricultural system. The apparent decline in the rural workforce in a number of Pacific island countries has already been noted, as has the general tendency for agriculture to become less, rather than more, labour intensive. Examination of the age structure of rural populations in many parts of the region reveals high and increasing dependency ratios as more and more people migrate to urban or peri-urban areas both within the islands or in New Zealand or the United States. With few exceptions, it seems

unlikely that an adequate labour supply will be offering in the medium term for intensification of agriculture (e.g. through intercropping) unless this intensification is brought about through increased levels of capital investment. It also seems unlikely that this will come about within the mixed subsistence-cash cropping system.

Options for agricultural development

The Pacific island countries, particularly the smaller ones, are faced with a number of dilemmas in assessing alternative agricultural strategies for the next one or two decades. The underlying elements include the restricted environment; constraints imposed by isolation, fragmentation and small size; the conflict between governments' need for revenue and export generation on the one hand and the social desire to promote smallholder rather than large-scale units; and the depressing effects of emigration and remittance income on agricultural activity. Obviously not all these apply in every country and some countries have particular problems to accommodate.

The options open to Pacific island countries for planning their future agricultural development can be illustrated by taking a range of examples from different countries. Perhaps the starkest situation is that facing Kiribati. Given the extremely restricted physical environment of this atoll state, and the absence of any alternative basis for sustained economic growth, it may be necessary to examine the prospect for returning to a more self-sufficient form of rural production. Even if the existing level of civil service employment and government services can eventually be maintained from income received from the Revenue Equalisation Reserve Fund, built up in recent years from royalties on phosphate exports, it is clear that at least the existing rural population will have to be supported by agriculture. At present an extremely high proportion of food is imported and environmental conditions make import replacement through local production of starchy root crops virtually impossible. The possibilities for import substitution with alternative foods are also limited. The only option appears to lie in intensification of multi-storey cropping using a range of nut and fruit trees which are grown in a number of Pacific countries on relatively poor sandy soils. These include breadfruit and pandanus, the latter already being a major staple food. Bananas are said not to grow well in Kiribati but with improved techniques

of mulching and composting, and trials with varieties which appear to survive on sandy soils elsewhere in the Pacific, they might be added to the range. Other crops such as Polynesian arrowroot (*Tacca* sp.) and *Alocasia* might also be added. But the best possibilities probably lie in fruit and nut trees. If the 'compound gardens', comparable to those found in villages in Southeast Asia and elsewhere in the Pacific, could be deliberately expanded and diversified, a stable and more varied form of production might be developed.

For commercial production, the coconut appears to be the only significant potential source of cash. The impossibility of supporting the existing populations entirely from commercial copra production has already been noted but it might be possible to extend the range of commercial products derived from the coconut. The export of 'heart of palm' might be developed in conjunction with the existing program for replacement of ageing palms and the growing of new selected planting material. Whether hybrid palms can be developed for atoll conditions is an open question but could be examined. Coir, charcoal, materials for pharmaceutical use, synthetic resins, fillers and building material are all possible products. But whether production of these would be economic from smallholdings on widely scattered islands is unknown. The use of coconut stem timber, now possible through the recent development of new milling technology, might also assist and provide additional income sources to planters with ageing coconut stands. This strategy of developing a stable and diversified agriculture for both export and subsistence may be the only long-term prospect for agriculture not only in Kiribati but also in the North Cook Islands and on other atolls or isolated islands.

Those island countries, such as the Cook Islands, which have special relationships with metropolitan countries may have certain advantages, at least in market access. This is the basis of previous attempts in the Cook Islands to develop an export trade in tomatoes and other fresh vegetables and is also crucial for the canning of orange juice and pineapple which has provided one of the bases for the Cook Islands' export agriculture. At present these industries are hampered by the fact that canning takes place in a relatively large plant in Rarotonga whereas much of the production occurs on other islands. Thus bulky and perishable materials must be transported long distances at

relatively high cost before processing. The commercial viability of this operation is questionable and it may be that small-scale processing on several islands would be more economic. Yet the whole tendency towards the increasing scale of processing units militates against this solution. Furthermore, it is questionable, given the free access which Cook Islanders have to New Zealand and the levels of income they can earn there, whether the necessary labour will be forthcoming for expansion of commercial agriculture. Ultimately it may be that the only really viable form of agriculture in the southern Cook Islands will be for local, urban and rural food consumption.

The only country currently supplying the New Zealand fresh vegetable market which appears to have a prospect of meeting the labour requirements of intensive agriculture while having suitable soils for intensive market-garden production is Tonga, and then only on the island of Tongatapu, the destination for most internal migrants. A dual strategy may be possible in Tonga. On the one hand, in the outer islands that have stable or declining work forces, farmers may have to rely on relatively extensive forms of production based on the coconut. On the other hand, in Tongatapu the creation of an export industry based on a relatively wide range of food crops may be possible. Such an industry would probably require a high level of centralized management which might be based on some form of co-operative organization or a centralized marketing authority. The need to maintain steady production levels might require a core of relatively large holdings but these could well be supplemented by smallholder producers. This implies increased polarization between large and small operators and although this might be viewed as socially undesirable it is a trend which appears to be developing already. The large holdings need not be individually owned. Some form of processing is probably an essential ingredient of such an agricultural complex and this will also impose different but no less rigid requirements. In essence it would require a 'plantation management system' overlying a mosaic of large and small producers who, if the industry is to be successful, would have to accept a high degree of direction both in their agronomic and marketing operations.

In the Solomon Islands the dichotomy between enclave plantation agriculture and village-based mixed subsistence-cash cropping is marked. Social resistance to settlement of migrant smallholders may well limit the possibilities

for establishment of projects embracing grouped smallholders under general management. Given the apparent availability of land, provincial governments in the Solomon Islands may well opt for further large-scale plantation development under some form of state management. The extent to which the technologies employed on such estates will diffuse to village agriculture is uncertain but the need of governments for revenue may well take precedence over other goals in the design of future development programming.

In Western Samoa the plantations operated by the Western Samoa Trust Estate Corporation (WSTEC) might well be developed to provide a revenue base for government and a stable core for export production. A previous choice of unsuitable planting material resulted in a major decline in WSTEC's cocoa production and demonstrates some of the risks involved in dependence on a narrow crop range in small countries. It also demonstrates the need for extremely high levels of managerial and agronomic competence.

WSTEC provides an example of a form of state owned plantations which may become increasingly attractive to both national and sub-national governments in several Melanesian countries. Whether such enterprises will have much impact on smallholder producers is doubtful unless deliberate attempts are made to utilize management and technical skills available on the estates to provide a supra-structure for neighbouring smallholders, both 'independent' farmers and those producing within the village systems. For those countries where land is more plentiful the long-term goal should probably be to develop a variety of systems under which smallholders can combine under some form of joint marketing and input provision.

This last option implies major social changes. One implication is a move away from traditional subsistence forms of communal organization, and an increasing degree of individualism both in production and social organization. It is clear that this trend is much further advanced in several Pacific island countries than is commonly acknowledged. In particular, the degree of individualization which has occurred within Fijian society in the last one or two decades is very striking and it seems likely that this tendency will continue and be paralleled elsewhere unless governments make deliberate decisions and introduce effective policies to counter the trend.

Fiji, with its varied environment, variety of export crops and its long experience of smallholder production under centralized control, is clearly the most 'advanced' country in the region in terms of the maturity of its agricultural economy. The mixed ethnic composition of its population imposes certain prerequisites on development policies if income differences between communities are to be reduced. However, Fiji with its relatively high levels of education, wide range of tertiary training institutions, professional resources and institutional infrastructure may have a better possibility of moving into a more complex agricultural economy than any other Pacific island country. This would entail further industrialization on an agricultural base, exploiting the relatively wide range of products in order to produce more highly valued items such as confectionery, processed coconut products and a wider range of commodities derived from sugar cane. The degree of individualism in both the Fijian and Fiji-Indian communities, combined with available entrepreneurial skills, would seem to provide a better basis for such a strategy than is possessed by any other Pacific island country.

It is clear that a number of options are possible for states within this region. However, only the largest of the countries, and those with the most varied resource base, have much hope of taking advantage of those opportunities which are likely to produce, on a commercial basis, the levels of living which people from the Pacific now appear to seek. Agriculture in the past has been the basis for the economies of virtually all Pacific island countries. For some countries at least it would appear that this sector will not be able to provide levels of living approximating those which people have come to accept unless emigration and foreign aid continue for a long period.

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Chapter 3

Some problems of developing and managing fisheries in small island states

R.E. Kearney

Fish and fisheries play a very significant part in the culture, sustenance, and recreation of all small island communities. Even though Western style development has diversified life styles in most island communities and has created new alternatives to fish and fishing as a way of life, it is doubtful if the significance of fisheries to island people has decreased in recent years. Furthermore, in the last few years the international acceptance of the principles of extended zones of fisheries or economic jurisdiction has brought the fisheries potential of small island states into the international political arena for the first time and has begun to influence government policy at the highest levels. The increased potential which this new 200-mile regime brings to small island states is being regarded by many as a bonanza, particularly for those states which have relatively few terrestrial natural resources. However, the complications and difficulties involved in developing the resources of these extended zones, or even in managing fisheries which already harvest the resource, pose their own problems. Extended jurisdiction also brings responsibilities for which many smaller states have inadequate facilities.

The resources of small island states of the Pacific

The small developing states of the western and central Pacific are, in general, comparatively isolated islands or archipelagoes. In most cases, there is little, if any, continental shelf and the smallness of the land mass means that there is very little nutrient run-off to enrich the surrounding seas. The waters surrounding them are typically clear, blue and oceanic, and support comparatively low total productivity compared to continental coastal areas. As a

Table 1

Population, land and sea area (200-mile zones) of the small island states in the area of the South Pacific Commission

Country or territory	Population (mid-1978)	Land area (sq. km)	Sea area (sq. km)	Sea area/ Land area
American Samoa	31,500	197	390,000	1,980
Cook Islands	18,500	240	1,830,000	7,625
Fiji	607,000	18,272	1,290,000	71
French Polynesia	141,000	3,265	5,030,000	1,541
Guam	90,000	541	Included in TTPI	n.a.
Kiribati	56,000	684	3,550,000	5,190
Nauru	7,000	21	320,000	15,238
New Caledonia	138,103	19,103	1,740,000	91
New Hebrides	101,500	11,880	680,000	57
Niue	3,700	259	390,000	1,506
Norfolk Island	1,900	36	400,000	11,111
Pitcairn Island	100	5	800,000	160,000
Solomon Islands	214,000	28,530	1,340,000	47
Tokelau	1,600	10	290,000	29,000
Tonga	93,000	699	700,000	1,001
Trust Territory of the Pacific Islands	133,000	1,832	6,200,000	3,384
Tuvalu	7,400	26	900,000	34,615
Wallis and Futuna	10,000	255	300,000	1,176
Western Samoa	153,000	2,935	120,000	41
South Pacific Commission area (excluding Papua New Guinea)	1,808,200	88,790	26,270,000	296

Source: Sevele and Bollard (1979)

result of the lack of large continental shelf areas or extensive coastal enrichment, small island states do not often have extensive inshore fisheries resources. However, the 200-fold increase in the combined areas of jurisdiction of Pacific coastal states, resulting from the acceptance of 200-mile zones, means that the prospects for fisheries development are not restricted to the coastal fisheries which have traditionally provided livelihood. The coastal resources have, however, traditionally been of greater significance and it is appropriate to discuss their potential development and management first.

Coastal resources

The problems of development. It has already been suggested that the coastal resources of the small island states are restricted because of the limited total area of habitat; however, these inshore stocks have traditionally been of unequalled significance to island peoples. Their role in the future of island societies should not be underestimated, even if they are not developed beyond their present levels.

The coastal resources of the small island states of the Pacific are mostly those of tropical reef or lagoon environments. These environments harbour a great diversity of marine organisms and many families of fish, crustaceans and molluscs are represented. However, the relative productivity of marketable fish and other sea foods from such reef areas is not great. Furthermore tropical reef areas are not suitable for trawling and they seldom harbour extensive resources of pelagic species vulnerable to seining. As a result large catches are not regularly taken and infrastructures for handling even moderate quantities of fisheries products are normally not established. Development is therefore severely hampered by the lack of a major single fishery which could provide the backbone of commercial catching and processing enterprises. This lack of a major fishery, coupled with the restricted market outlets as a direct function of smallness, means that fishing vessels tend to be small and fishermen are required to diversify their gear and techniques to make best use of the variety of species available. This need to depend on small vessels often results in fishing activities being completely disrupted by periods of even moderate weather. Small communities are therefore frequently faced with their fishing vessels being unable to work for long periods, then when they can work glut conditions can often

Table 2

Local catches and catches by distant-water fleets in the waters of
the countries and territories of the South Pacific Commission

Country or territory	Local total fish catch (tonnes)	Local tuna catch (tonnes)	Longline catch ^h in 200-mile zone by foreign fleets in 1976 (tonnes)	Pole-and-line ^h catch by Japanese fleet in 200-mile zone in 1976 (tonnes)
American Samoa	220 ('78) ^{ab}	20 ('78) ^b	387	29
Cook Islands	—	—	2,866	10
Fiji	11,594 ('77) ^{ac}	7,262 ('77) ^{ac}	1,553	233
French Polynesia	2,386 ('74) ^d	1,293 ('74) ^e	7,264	0
Guam	—	—	— ^f	— ^f
Kiribati	1,344 ('77) ^a	786 ('77) ^a	11,349	16,570
Nauru	0	0	1,845	8,224
New Caledonia	499 ('77) ^{ac}	186 ('77) ^{ac}	1,800	58
New Hebrides	10,500 ('76) ^c	10,000 ('76) ^c	1,012	93
Niue	20 ('78) ^a	10 ('78) ^e	289	4
Norfolk Island	—	—	700	2
Pitcairn	—	—	1,090	0
Solomon Islands	17,444 ('76) ^e	15,787 ('76) ^h	2,709	17,248
Tokelau	—	—	450	1,645
Tonga	1,117 ('77) ^a	300 ('77) ^e	816	18
TTPI	10,000 ('76) ^e	5,284 ('76) ^h	20,601	38,360
Tuvalu	80 ('78) ^a	40 ('78) ^a	1,886	7,611
Wallis and Futuna	—	—	386	155
Western Samoa	1,700 ('76) ^a	850 ('76) ^a	160	24
Total	56,904	41,818	57,163	90,284

^aFigures from Crossland and Grandperrin (1979).

^bExcluding unloadings to the Pago Pago canneries.

^cThis includes only the catches which passed through markets.

^dFrom Kearney (1977).

^eMy estimate.

^fCatches included under Trust Territory of the Pacific Islands.

^gMainly longline catches transhipped at Santo.

^hFrom Kearney (1979), tuna catches.

result from abnormally good catches by only one or two vessels.

It is therefore not surprising that even though there is great diversity in the coastal fisheries resources in small island states, the total harvest from them is not great. This is substantiated by the relatively small catches made in the coastal fisheries of the island states of the Pacific (Table 2).

Improvements in fishing gear and technology will undoubtedly increase the effective fishing effort brought to bear on the inshore resources of island states. In many cases this can be expected to result in an increase in total catch which could, by most definitions, constitute development. However, total catches can only be increased if the incentive to the fishermen is maintained and this can only be done if sufficient market demand exists to ensure that better financial returns will result from larger catches. In small island communities this is often not possible because of the small number of consumers and the ease with which local markets can be glutted. This normally necessitates export to urban areas, neighbouring islands or possibly distant metropolitan centres. For the small-scale coastal fishermen there are many processing and marketing problems which hinder this type of development. The most notable are:

- (a) There is great species diversity in tropical marine environments and seldom is it possible to develop a fishery solely on one species. Processors and customers alike can therefore not become accustomed to dealing regularly with a single species.
- (b) The species diversity requires versatility in the handling and processing techniques used in order to maintain quality.
- (c) The remoteness of many island areas normally results in abnormally high fuel and maintenance costs for all processing and refrigeration equipment.
- (d) The ambient temperature in tropical environments strains the limited refrigeration which is available in most cases.
- (e) Ciguatera poisoning is a common phenomenon in most island areas. This not only prevents the sale of

certain species of fish to local knowledgeable consumers, but in many cases it completely prohibits the export of fish because of the uncertainty on the part of foreign buyers.

- (f) Export of produce is difficult if refrigeration is required, and is expensive because of high freight costs resulting from remoteness.

The problems of management. The development of fisheries resources unavoidably raises questions of management. Firstly it is necessary to decide if management is required for the protection of a species, a population, or a stock, or if it is necessary for more political or economic motives. In some cases where the resources are large and effort minimal, the only management decision necessary is to increase the catch by increasing the total effective effort; in such situations there are fewer problems. However, when resources are limited, as in the case in many islands, an increase in the total effective effort will result in a decrease in the catch per unit of effort and hence in the average economic return. In some cases it could even result in a decrease in the total catch, as, for example, has been experienced in the turtle fisheries of several Pacific countries. Largely because of the restricted area of the inshore resources, many of them are highly susceptible to overexploitation to the point where total yield is decreased. Therefore, any development of these resources must be done within the basic guidelines of sound fisheries management and resource conservation.

Management of coastal resources for economic gain will need to be aligned with the general political and socio-economic goals of the country, and will probably involve optimizing effort in accordance with the state of the harvestable resource and available markets and processing facilities. Management decisions from a conservation viewpoint will need to take account of many complex variables affecting the harvestable adult stocks, and the maintenance of breeding and nursery grounds such as mangroves, reef flats and inter-tidal zones. The complexity of these issues will be magnified in tropical reef environments because of the diversity of the species being exploited. It is impractical at this time to try and predict what management issues will assume general importance, or how individual problems could best be solved.

Aquaculture potential

While it would be foolish to disregard the potential of aquaculture as a fisheries development medium for any developing state, I feel that in small island states such projects should be regarded with caution. Closed system aquaculture, in the main, has only been successful in the very large developing countries, where incomes are very low, population densities are high and natural protein resources are restricted. In many cases when coastal mangrove or inter-tidal zones are converted for aquaculture, species harvested in existing commercial fisheries is overlooked. In general, continuous access to a relatively high priced luxury market is required for most aquaculture products and these conditions do not often exist in small island countries. Development planners would be well advised to examine the problems of the numerous aquaculture projects which have been undertaken in similar areas before committing funds or manpower.

The economic implications of developing aquaculture schemes in the island states of the South Pacific were considered in depth by the South Pacific Commission's Eighth Regional Technical Meeting on Fisheries, which concluded that in this region very few previous projects such as this had been successful and recommended (1975) 'that detailed economic surveys should be carried out before any commercial scale aquaculture projects are initiated', and pointed out that such 'surveys should include the economics of alternative use of both the land to be developed and the investment capital'.

Offshore resources

The problems of development. The known offshore fisheries resources of the central and western Pacific are dominated by highly migratory species, predominantly tunas. The significance of these species is clear from Table 2, which shows the approximate total fish catches, and those of tuna and billfishes by the longline and surface fisheries, in the respective 200-mile zones of the small coastal states in the area of the South Pacific Commission. From the figures given in Table 2 it can be shown that tuna account for 189,265 tonnes (93 per cent) of a total recorded fish catch of 204,351 tonnes from the 200-mile zones of the small island states in the area considered.

Even though 'local tuna catches' in Table 2 amount to 41,818 tonnes, it must be noted that the greater part of this total is taken by foreign vessels fishing independently of, or in joint venture with, the coastal state; the catch is recorded as local by the individual countries because it is landed or transhipped in the respective country.

The tuna catches in Table 2 are particularly significant for two major reasons; first the totals show the unequalled economic potential of tunas to many of the individual states; second the present low level of participation by coastal states indicates considerable potential for development. The real problem then is how to increase the involvement of the island states in these fisheries. A whole range of possibilities exists, from the development of wholly owned, operated and controlled local fisheries, through numerous joint venture alternatives, to the generation of revenue from totally foreign fleets. Of course, no one of these possibilities need be pursued exclusively and some balance of local and foreign enterprises could be the most rewarding.

If the island states choose to generate revenue from the licensing of foreign boats, then the problem is largely one of management; however, if the coastal states pursue the option of developing their own fisheries for the offshore resources, then some of the major problems they will need to overcome include:

Seasonal fluctuations in the abundance of the resource.
Even though the area of ocean under the control of individual coastal states has increased dramatically as a result of the acceptance of 200-mile zones of extended jurisdiction, these areas represent only a fraction of the habitat of the highly migratory species. The abundance of these resources in any one 200-mile zone fluctuates markedly with season, particularly in the higher latitudes. It may, therefore, be impossible for most small island states to maintain a fleet year-round, particularly as most of them have no other suitable fisheries in which to employ vessels and crew during off-peak seasons. Co-operation with neighbouring states, preferably on a broad regional basis, could help to alleviate this problem.

Highly migratory resources often show marked year-to-year variations in abundance in addition to seasonal variability. Companies or countries with limited financial resources find it very difficult to withstand successive poor seasons, or even a single very bad one.

Table 3
Declared income and expenditure for Japanese skipjack pole-and-line vessels
of 50-100, 100-200 and 200-500 gross tonnes
 (All costs are in units of 1000 yen)

	1971			1972			1973			1974			1975			1976		
	50-100	100-200	200-500	50-100	100-200	200-500	50-100	100-200	200-500	50-100	100-200	200-500	50-100	100-200	200-500	50-100	100-200	200-500
Sample size	n.a.	13	14	n.a.	11	20	1	8	29	2	2	35	n.a.	3	38	n.a.	n.a.	40
Average tonnage	n.a.	186.79	288.84	n.a.	183.57	296.07	59.96	190.34	306.35	59.65	192.63	306.05	n.a.	191.90	325.59	n.a.	n.a.	350.35
No. of crew	n.a.	38.5	38.8	n.a.	37.8	37.3	27	30.4	34.7	24	35.0	32.5	n.a.	22.0	29.7	n.a.	n.a.	30.2
Total income	n.a.	124565	145064	n.a.	161742	154954	76075	103129	186872	75281	115862	175278	n.a.	90023	146493	n.a.	n.a.	239154
Total operating costs	n.a.	109310	136175	n.a.	156867	148509	71327	95503	179635	75934	116930	175630	n.a.	88496	167188	n.a.	n.a.	226228
Profit	n.a.	15255	8889	n.a.	4875	6449	4748	7626	7237	-653	-1068	-352	n.a.	1527	-20695	n.a.	n.a.	12926
Cost of labour	n.a.	56421	65236	n.a.	71706	68661	37623	46223	79322	28260	51038	68316	n.a.	32574	56501	n.a.	n.a.	91307
Labour as % of total cost	n.a.	51.6%	47.9%	n.a.	45.7%	45.7%	52.7%	48.4%	44.2%	37.2%	43.6%	38.9%	n.a.	36.8%	33.8%	n.a.	n.a.	40.4%
Cost of fuel/oil	n.a.	7432	9491	n.a.	12518	12246	5419	8492	16165	11008	17572	32311	n.a.	19796	39854	n.a.	n.a.	48909
Fuel as % of total cost	n.a.	6.8%	7.0%	n.a.	8.0%	8.2%	7.6%	8.9%	9.0%	14.5%	15.0%	18.4%	n.a.	22.4%	23.8%	n.a.	n.a.	21.6%
Cost of bait	n.a.	9413	15970	n.a.	13379	12574	7744	9653	14453	8045	9775	15191	n.a.	13262	16909	n.a.	n.a.	18378
Bait as % of total cost	n.a.	8.6%	11.7%	n.a.	8.5%	8.5%	10.9%	10.1%	8.0%	10.6%	8.4%	8.6%	n.a.	15.0%	10.1%	n.a.	n.a.	8.1%
Fuel cost/tonne tuna caught	n.a.	10.81	10.91	n.a.	12.08	12.08	11.99	14.32	15.10	32.48	30.61	35.01	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Bait cost/tonne tuna caught	n.a.	13.69	24.76	n.a.	12.91	12.91	17.13	16.28	13.85	23.74	17.02	16.62	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Source: Kearney (1979).

Table 4
Declared income and expenditure for Japanese longline vessels of
50-100, 100-200 and 200-500 gross tonnes
 (All costs are in units of 1000 yen)

	1971			1972			1973			1974			1975			1976		
	50-100	100-200	200-500	50-100	100-200	200-500	50-100	100-200	200-500	50-100	100-200	200-500	50-100	100-200	200-500	50-100	100-200	200-500
Sample size	22	4	n.a.	22	6	1	27	10	1	32	13	1	32	11	n.a.	29	5	2
Average tonnage	75.85	164.36	n.a.	72.94	169.50	371.02	75.09	162.72	299.35	79.06	168.35	299.35	76.91	168.39	n.a.	75.06	152.13	276.27
No. of crew	17.1	19.5	n.a.	16.5	19.2	26	16.1	17.8	22	16.1	18.3	21	15.2	18.0	n.a.	14.6	17.6	20
Total income	46350	85590	n.a.	48102	92411	55504	66178	96541	78625	66365	106594	83262	80246	118556	n.a.	104401	142134	174577
Total operating costs	44722	68732	n.a.	46129	81108	53203	65457	90096	93501	77799	108778	87381	85945	122076	n.a.	104150	132391	179131
Profit	1628	16858	n.a.	1973	11303	2301	721	6445	-14876	-11434	-2184	-4119	-5699	-3520	n.a.	251	9743	-4554
Cost of labour	18514	29628	n.a.	19200	37039	25199	26223	36071	35066	28857	40456	32210	30911	45827	n.a.	41357	52816	78211
Labour as % of total cost	41.4%	43.1%	n.a.	41.6%	45.7%	47.4%	40.1%	40.0%	37.5%	37.1%	37.2%	36.9%	36.0%	37.5%	n.a.	39.7%	39.9%	43.7%
Cost of fuel/oil	3747	7722	n.a.	3332	8733	8815	5039	10504	7939	9574	20650	13160	12991	24114	n.a.	16309	27969	35005
Fuel as % of total cost	8.4%	11.2%	n.a.	7.2%	10.8%	16.6%	7.7%	11.7%	8.5%	12.3%	19.0%	15.1%	15.1%	19.8%	n.a.	15.7%	21.1%	19.5%
Cost of bait	3776	3590	n.a.	2963	3854	4600	3419	3997	3312	4355	5878	4250	5210	6394	n.a.	6625	7597	7129
Bait as % of total cost	8.4%	5.2%	n.a.	6.4%	4.8%	8.6%	5.2%	4.4%	3.5%	5.6%	5.4%	4.9%	6.1%	5.2%	n.a.	6.4%	5.7%	4.0%
Fuel cost/tonne tuna caught	27.05	31.86	n.a.	24.41	34.82	44.84	31.12	43.40	37.70	71.66	96.81	65.77	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Bait cost/tonne tuna caught	27.26	14.81	n.a.	21.71	15.37	23.40	21.12	16.52	15.73	32.60	27.56	21.24	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Source: Kearney (1979)

The requirement for large expensive vessels. An average (300 tonne) pole-and-line or longline vessel used in the distant-water fisheries of the central and western Pacific now has a replacement value which substantially exceeds A\$1 million, and even in 1976 cost almost A\$1 million per year to operate (Tables 3 and 4). An average US tuna purse seiner of 1100 tonnes costs approximately A\$6 million to build and A\$2 million per annum to run (Table 5).

Small states mostly do not have suitable slipping and docking facilities for larger fishing vessels, nor do they carry extensive stocks of spare parts and ancillary equipment.

Cost and availability of fuel. From Tables 3, 4 and 5 it can be seen that in 1976 it cost A\$141,765 per annum (¥48,909,000 at a rate of A\$1.00 = ¥345) for fuel for a 350 tonne pole-and-line vessel, A\$101,464 (¥35,005,000) for a 276 tonne longliner and A\$239,000 (US\$270,000 at A\$1.00 = US\$1.13) for a 1100 tonne purse seiner. The fuel costs for any one of these vessels exceeds the entire national fuel bill for 1977 for each of two of the island states of the South Pacific (Tuvalu and Niue) and represents a substantial fraction of the fuel consumption of several others (Table 6).

Fishing fleets throughout the world are facing serious economic problems as a result of the world's oil situation and small island states are no exception. They may even be more disadvantaged, for should they undertake a major fisheries development scheme their fuel purchasing policy would need major review. Fuel is not only becoming more expensive (Table 7), but is also becoming increasingly difficult to obtain, making it difficult for any non-oil producing country to plan the development of fisheries which will necessitate substantial increases in fuel consumption.

Fuel is also far more expensive in remote areas (Table 8). This makes it disadvantageous for foreign flag vessels to bunker there and hence difficult for small states to encourage these vessels to call and unload their catch. It also means that small island states have an extra economic disadvantage to contend with when catching fish to sell on an internationally competitive market.

Problems of smallness and economies of scale. Problems of smallness and economies of scale are not peculiar to fisheries. Enumeration of these problems is unnecessary; however, one example relevant to the specific problems of

developing a major fishing facility is probably warranted.

In a previous study based on data from the Papua New Guinea skipjack fishery, I estimated that approximately 8000 tonnes of tuna per annum were required to maintain the economic viability of the catching sector; this would require at least ten catcher boats. In addition to the problems of funding a venture of this size, most small island states do not have sufficient skilled fishermen, or other technical or management personnel, available to facilitate this scale of development. If a live bait and pole fishery, capable of catching 8000 tonnes of tuna per annum, is to be developed, then live bait resources sufficient to support bait catches well in excess of 240 tonnes would be required (Kearney 1975). Most small island states do not have baitfish resources of this magnitude and even for some which do, a catch of 240 tonnes per annum would be several times their present total commercial fish catch.

Table 5

Estimated operating expenses for US purse seine vessels
of 1100 ton class

All figures are in US\$

	1976	1977	1978
Total income	2,200,000	1,700,000	2,200,000
Total operating costs	2,100,000	1,700,000	1,980,000
Profit	100,000	0	220,000
Cost of labour	900,000	480,000	610,000
Labour as % of total cost	42.9%	28.2%	30.8%
Cost of fuel/oil	270,000	160,000	160,000
Fuel as % of total cost	12.9%	9.4%	8.1%
Fuel cost/ton tuna caught	100	80	63

Source: Kearney (1979)

Furthermore, experience suggests that the development of tuna fishing industries in the western Pacific is suspect unless there is some processing associated with it. If the fish are not processed but merely exported frozen, then the

remoteness of most small states means that freight costs may be as high as A\$200 per tonne and may severely jeopardize the entire operation. The minimum annual requirement for a viable tuna cannery is around 5000 tonnes, depending on the locality, and 15,000 tonnes is probably closer to the optimum size in most areas. Not only does this type of processing facility pose additional financial and manpower problems, but it requires water and power resources which are beyond most very small island countries.

Table 6

Imports of fuel and minerals by the small island states
in the area of the South Pacific Commission in 1977

Country or territory	Value of fuel and mineral imports (A\$'000)
American Samoa	17,719
Cook Islands	734
Fiji	53,072
French Polynesia (1976)	21,943
Kiribati	2,111
Nauru	1,307
New Caledonia	63,312
New Hebrides (1975)	3,065
Niue	164
Norfolk Island	546
Solomon Islands	3,542
Tonga	1,789
Trust Territory of the Pacific Islands (1976-77)	4,429
Tuvalu	67
Western Samoa	3,337

Source: Sevele and Bollard (1979).

The problems of management. Even though few small island states are at present actively involved in the management of fisheries resources, there is no doubt that most, if not all of them have a strong desire to increase their involvement in the fisheries which go on in the waters surrounding them. The international acceptance of extended jurisdiction has undoubtedly given the coastal states new rights and powers in this field. They have rather suddenly become responsible for the management of resources exploited by fisheries in which the coastal states have not been involved (Table 2).

The articles in the law of the sea texts most relevant to discussions on increased involvement by coastal states in the management of the fisheries resources in their 200-mile zones are Articles 56, 61 and 62 of the Informal Composite Negotiating Text (ICNT 1977). Throughout those sections of the ICNT relevant to fisheries management, four main themes have been stressed.

(a) Increased rights of coastal states.

The increased rights of coastal states in the exclusive economic zone are clearly defined in Article 56, '(a) Sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the bed and subsoil and the superadjacent waters'. Additionally (Article 61.1), 'The coastal state shall determine the allowable catch of the living resource in its exclusive economic zone', and (Article 62.3) 'The coastal state shall determine its capacity to harvest the living resources of the exclusive economic zone'.

(b) Obligations of coastal states.

Considering the obligations of coastal states, Article 62.1 states: 'The coastal state shall promote the objective of optimum utilization of the living resources in the exclusive economic zone', and Article 62.2 adds, 'Where the coastal state does not have the capacity to harvest the entire allowable catch, it shall ... give other states access to the surplus of the allowable catch'.

(c) Obligations of nationals fishing in an exclusive economic zone other than their own.

The obligations of nationals or other states fishing in the exclusive economic zone are numerous but most importantly include compliance 'with the conservation measures and with the other terms and conditions established in the regulations of the coastal state. These regulations shall be consistent with the present Convention and may relate, *inter alia*, to the following:

- (i) Licensing of fishermen, fishing vessels and equipment, including payment of fees and other forms of remuneration ...
 - (ii) Determining the species which may be caught, and fixing quotas of catch, ...
 - (v) Specify information required of fishing vessels, including catch and effort statistics and vessel position reports ...
 - (viii) The landing of all or part of the catch by such vessels in the ports of the coastal states; ...
 - (xi) Enforcement procedures' (Article 62.4).
- (d) The need to conserve the resource base.

Article 61.3 endorses the need 'to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yields, as qualified by relevant environmental and economic factors, including the economic needs of coastal fishery communities and the special requirements of developing countries'.

These four points clearly indicate the increased rights of coastal states, and their responsibility to protect the resource for the benefit of mankind and to actively promote attainment of maximum sustainable yields. What has happened in practice is that foreign fishing nations have accepted the principles of increased coastal states' rights, but the attainment of benefits by the coastal states has been solely determined by the ability of the states to negotiate agreements to their advantage. In effect the responsibility to maintain maximum yields has been ignored. This is not surprising in the light of Articles 56, 61.1 and 62.2.

It could have been predicted that the coastal states would have, by their increased rights, assumed the primary role in the management of the fisheries in their respective 200-mile zones. However, in reality the small coastal states of the central and western Pacific have found that the distant-water fishing nations have not rushed to buy licences from the whole region, but rather they have negotiated on a bilateral basis with a few selected states. In many cases, coastal nations have not been able to obtain 'buyers' for access to their waters, and their anticipated participation in the management of their offshore resources has therefore not eventuated. While at first glance this result would suggest that the introduction of licence fees has in itself caused a withdrawal of at least some of the foreign fishing fleets, it is probable that economic problems other than those associated with licences have contributed at least equally.

The offshore tuna fisheries of the central and western Pacific are at present extremely unstable. Japan has traditionally been the dominant distant-water fishing nation in this region and for an accumulation of reasons it is becoming increasingly less attractive for Japanese vessels to operate in this area. The Japanese skipjack market is at present very depressed, largely as a result of the marked drop in the value of the US dollar against the yen, making it uneconomical for Japan to export its excess catches to the United States. Further, labour (Tables 3 and 4) and fuel (Table 7) costs are constantly rising while catch per unit effort remains static or tends to decrease. When the additional potential burden of licence or access fees is considered, the short-term financial future for the catching sector of the tuna fishing industry in the western Pacific is not good. Owners of foreign fishing vessels are therefore keen to minimize the licence or access fees they are forced to pay and one way to do this is to concentrate the fishing effort near those countries which have not as yet declared 200-mile zones, or which charge minimal licence fees. For further discussion see Kearney (1979).

The lack of uniformity in fisheries policies by the coastal states has therefore jeopardized the chances of several states of becoming involved in the management of the fisheries and the generation of revenue from them. Furthermore, as the major resources are highly migratory, the few countries which now have fisheries agreements cover only a fraction of the area of the distribution of the

resource and they cannot effect a sound management regime for conservation purposes. The need for regional co-operation on management of the highly migratory resources, whether for the generation of revenue or for conservation, is therefore stressed. This issue has been dealt with in greater detail in Kearney (1977).

Table 7

Changes in marine diesel prices at two United States ports

Year	Los Angeles price US\$ per barrel	New York Price US\$ per barrel
1970	4.40	3.51
1973	11.55	10.96
1974	16.88	16.96
1975	n.a.	15.25
1976	16.02	15.25
1977	16.13	15.67
1978	16.13	15.85
1979	21.89	21.87

Table 8

Diesel fuel prices in July 1979 at selected ports

Port	Price US\$ per gallon
Pago Pago (American Samoa)	0.62
Los Angeles (USA)	0.56
Cape Town (South Africa)	1.59
Suva (Fiji)	1.05
Noumea (New Caledonia)	1.10
Port Louis (Mauritius)	0.95
Las Palmas (Canary Islands)	1.02
Panama	1.20

Table 9

Commercial, local and foreign fish catches, and fish imports and exports for countries
and territories in the area of the South Pacific Commission

Country or territory	Commercial fish catch for domestic consumption ^a (tonnes)	Total locally registered fish catches ^b (tonnes)	Total fish catch from 200-mile zone ^c (tonnes)	Total fish imports (1976) ^d (A\$'000)	Total fish exports (1977) ^e (A\$'000)
American Samoa	220	220	636	496	67,979
Cook Islands	n.a.	n.a.	2,876+	n.a.	—
Fiji	4,332	11,594	13,380	7,000	4,705
French Polynesia	2,386	2,386	9,650	2,200	—
Kiribati	1,344	1,344	29,263	76	—
Nauru	0	0	10,069	n.a.	—
New Caledonia	499	499	2,357	1,100	121
New Hebrides	500	10,500	11,605	930	12,011
Niue	20	20	313	50	—
Norfolk Island	n.a.	n.a.	702+	—	2
Solomon Islands	1,657	17,444	37,401	150	7,895
Tokelau	n.a.	n.a.	2,095+	n.a.	—
Tonga	1,117	1,117	1,951	96	5
Trust Territory of the Pacific Islands	4,716	10,000	68,961	n.a.	3,265
Tuvalu	80	80	9,577	n.a.	—
Western Samoa	1,700	1,700	1,884	700	—
Total	18,571+	56,904+	202,720+	12,798+	95,983

Sources: ^aFrom Crossland and Grandperrin (1979). ^bFrom Table 2. ^cFrom Kearney (1979). ^dFrom George Kent, 1979 (manuscript). ^eFrom Sevele and Bollard (1979).

Conclusions

The present state of fisheries development. Table 9 summarizes the extent of commercial fisheries in the small states of the South Pacific Commission area. The recorded catches for local consumption represents less than 10 per cent of the total catch from the 200-mile zones, while the locally registered catches account for little more than 25 per cent of this total. The present domination of the catches from this region by the distant-water fishing nations exploiting exclusively highly migratory species is immediately apparent.

Some available options. In the preceding sections, I have, as indicated in the title of this paper, concentrated on the problems which small island states face in developing or managing fisheries resources; the general tone of the comments is therefore not particularly constructive or optimistic. However, the very fact that the coastal states do have substantial resources in their 200-mile zones, and that the accepted principles of the law of the sea undoubtedly give them responsibility for management, is reason enough to increase the involvement of coastal states. Furthermore, there are resources, such as the deep water snappers, and other species of the reef slopes, which have only just begun to be exploited and which offer exciting new potentials. The fact that many small island states import fish and fisheries products means that there is a need for import replacement and confirms that local markets could absorb increased quantities of local product. The generally restricted nature of the known resources and the tendency in tropical reef fisheries for catch per unit of effort to drop quickly with increased effort, suggests that development of inshore fisheries should be gradual and cautiously carried out.

Increased involvement in the offshore fisheries is a different issue. It is difficult to generalize because, while successful skipjack pole-and-line fisheries have been developed in the Solomon Islands and Fiji, the lack of baitfish resources in countries such as Nauru appears to preclude the development of such a fishery. Nonetheless I feel confident that there is potential for more successful pole-and-line fisheries to be developed in the small island states of the western Pacific. Even for those countries without the baitfish or skipjack resources to develop a local pole-and-line fishery, there is obviously potential to license foreign purse seiners or distant-water pole-and-line or longline

vessels, particularly if development and licensing policies can be co-ordinated amongst the small island states with common resources and interests.

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Chapter 4

Development and growth constraints in the artisanal fisheries sector in island states

Rowena M. Lawson

Until recently fisheries in the island states of the Pacific were entirely concerned with the exploitation of their own coastal resources. A very large proportion of this was undertaken for subsistence consumption by coastal households, very little fresh fish getting to inland centres. Though fish is a major source of animal protein, most islands are still heavily dependent on imported canned fish. (The exception to this generalization is Fiji: 1977 imports were 4500 tonnes canned fish and 6400 tonnes fresh or frozen fish.)

However, two international political events are completely changing the perspectives of the fishing industry. First, many islands have now become politically independent of colonial powers and independence has brought with it new incentives to develop their own natural resources and to look for new exports to expand their foreign exchange earnings. Second is the current world-wide movement in which coastal states are moving to extended economic zones (EEZs) of 200 miles. This has brought within the political arena of the islands the possibilities of exploiting the huge resources of tuna and tuna-like species which form the main stocks of the deep oceans beyond the coastal fisheries. The management and control of the extraction of these resources will require a level of not only regional but probably also a wider international organization, especially since, in the face of the existing long distance fleets of Japan, Taiwan and Korea which currently take most of the tuna in the Pacific, the island states will find themselves weak bargainers (Lawson 1979). It is likely that those islands which have operated on their own in negotiations for joint venture agreements with the distant water states may find that they have not benefited as much as they expected.

Table 1

Estimated 1976 fish catch of certain South Pacific islands (tonnes)

	Marine					Inland	Total
	Tuna ^a	Other fish	Crustaceans	Molluscs	Misc ^b		
Cook Islands	0	1,000	0	0	0	0	1,000
Fiji	699	4,007	200	319	52	221	5,498
Kiribati	225	380	0	0	0	0	605
Papua New Guinea	33,055	15,300	1,612	0	0	12,012	61,979
Solomon Islands	16,100	2,000	0	480	20	0	18,600
Tonga	0	1,019	0	0	0	0	1,019
Western Samoa	0	1,100	0	0	0	0	1,100
	50,079	24,806	1,812	799	72	12,233	89,801

Source: FAO 1977.

^a Includes a small quantity of tuna-like fishes (mainly billfish).

^b Includes turtles, sea cucumbers and seaweeds.

This paper is concerned with the development of the coastal resources of island states, which may have a greater impact in certain islands than the development of a distant water tuna fishing fleet, because they are more accessible, and need a level of capital investment, technology and organization which can be developed by the local fishermen themselves without much foreign help, and because they give employment to local fishermen and can serve as the point of growth for other linkage industries such as boatbuilding, gear manufacture and maintenance. Whilst in the control and management of the tuna fishery the islands of the South Pacific will have the help and advice of the South Pacific Forum in which they will have to co-operate with other islands, the exploitation of local coastal resources must come within the management of the individual islands themselves. Whilst all problems that arise may not be unique to each country, there may be some problems which are a function of the socio-traditional framework of each island and which will require a specific and individual solution. A completely new arena of problems may be faced, involving not only technical and training difficulties concerned with introducing new techniques but also in financing and organizing larger fishing units, in the preservation of the larger catches and the marketing and distribution of fish to inland centres. However, provided these can be surmounted and given an appropriate level of sustainable exploitation, new coastal fisheries could represent a saving of foreign exchange through import substitution, and could form the basis of development of other linkage industries as well, bringing additional employment and income.

The coastal fisheries with which this paper deals are described as artisanal fisheries, that is fisheries which are labour intensive, not capital intensive and which utilize relatively simple techniques and gear in craft which may consist of simple canoes with an outboard motor or small mechanized craft. Such vessels land fish in relatively small quantities. Some of the problems of development will involve the introduction of improved processing and marketing so that fish products may be distributed more widely.

Estimates of fish catches for the major island states of the South Pacific in 1976 are given in Table 1. Of the more than 77,000 tonnes of marine fish, about one-third is known to be caught by the artisanal sector. However, owing to poor reporting in scattered artisanal fisheries, and because of the amount caught for subsistence, it is likely that this may be a gross underestimate.

Data on fish imports by these countries are given in Table 2 and a comparison with the data in Table 1 shows that whilst fish imports fell slightly short of marine catches (excluding tuna) the total value of imports was \$US 21 million. This gives some indication of the foreign exchange savings which could be made if local fish supplies were adequately expanded.

The major species caught are demersal or bottom lying species which include a number of reef dwellers, as well as groupers, jack, mullet, shark and snapper. As in the fisheries of the South China Sea, there are a great number of species many of which may be caught only in small quantities, and the resource is characterized by being a multi-species fishery. This, as will be discussed later, makes it very difficult to control the resource exploitation of one particular species, thus complicating any resource management scheme. It is difficult to envisage the application of modern technology to reef fisheries which characterize most South Pacific islands and techniques are likely to remain highly labour intensive, including the use of traps, spears, handlines and also organized fish drives at low water. However, the exploitation of fish resources outside the reefs offers opportunities for development in which modern vessels, including motorized canoes using modern nets and gear can be applied. There are no accurate statistics of the size of the artisanal fishing fleet in the South Pacific, owing to the highly dispersed nature of the distribution of craft. However, some estimates have been made as shown in Table 3.

Most artisanal fisheries are at present undertaken only as a part-time occupation, often as part of a family enterprise, and most fish landed may be for household consumption. In addition, the making of the gear and craft may well be a family concern. Thus a change to a higher level of technology, particularly one requiring larger capital inputs, could probably only be viable if the fisheries enterprises were upgraded into more specialized employment. Larger landings would be needed to cover the higher capital, operating and maintenance costs. There is no point, however, in landing greater quantities of fish if the market is not developed to absorb them. This may involve governments in providing infrastructure improvements so that inland and more remote population centres may be reached by lorry transport.

Thus an improvement of artisanal fisheries involves both state and individual enterprise simultaneously in

Table 2

Imports of fish into various South Pacific islands, 1977

Imports	Cook Islands ¹	Fiji ²	Kiribati ³	PNG ⁴	Solomon Islands ⁵	Tonga ⁶	Western Samoa ⁷	Total
Canned fish	Q	4,490	112 ^a	8,700 ^a	323	189 ^a		13,814
	V 241,001	4,224,392	80,048	6,366,000	254,077	188,772	1,004,735 ^a	12,359,025
Fresh or frozen fish	Q	6,399	2		4			6,405
	V 35,040	7,731,056	2,694	652,000	24,468	3,865		8,449,123
Cured fish	Q	61						61
	V 464	150,699		27,000		219		178,382
Fresh or frozen molluscs	Q							
	V 22,376							22,376
Crustaceans and molluscs fresh, frozen	Q	45						45
	V	293,608		467,000		2,875		763,483
Other preparations of fish origin	Q	13						13
	V	32,622						32,622
Other preparations of crustacean or mollusc origin	Q	5						5
	V	24,327						24,327
Total	Q	—	11,013	114	8,700	327	—	20,343
	V 298,881	12,456,704	82,742	7,045,000	278,545+	195,731	1,004,735	21,362,338

Q = Quantity in tonnes. V = Value in US dollars.

Sources: Asian Development Bank. ¹Cook Islands Import Statistics 1977. ²Annual Report, Fisheries Division, Ministry of Agriculture and Fisheries 1977. ³Gilbert Islands Trade 1977. ⁴FAO 1977. Pertains to 1975. ⁵Division of Fisheries, Ministry of Natural Resources. ⁶Kingdom of Tonga Trade Foreign Report 1977. ⁷Western Samoa Annual Statistical Abstract 1977. ^aMay include small quantities of other fish preparations.

providing a package of new inputs. These include loans schemes, marketing assistance, extension advice, technical supervision, and instruction on maintenance, training and education, and a recognition and understanding of the socio-traditional environment of the artisanal fisherman, so that new inputs will be introduced only within the absorptive capacity of the community to adapt to change (Lawson 1972).

Table 3

Estimated number of vessels in artisanal fisheries of
some South Pacific developing countries

Country	Vessels	
	Number	Type
Fiji	842	Launches, punts, skiffs, canoes, sailboats
Kiribati	79	Motorized boats
	368	Canoes
Papua New Guinea	3,000	Canoes and motorized boats
Solomon Islands	20,000	Canoes
Tonga	250	Motorized boats
	400	Canoes
Western Samoa	271	Motorized boats

Data from Asian Development Bank 1979.

Decisions as to who will be responsible for the application of these inputs must be decided by each individual state. Many alternatives present themselves, consisting of different combinations of contributions by the state and private sector. Where individuals are slow in responding to new entrepreneurial opportunities, states are often too impatient to wait for the necessary changes to evolve by themselves and decisions are made to involve the state in direct participation in the fishery. Part of this paper is concerned with discussing the alternatives which have presented themselves in island states in the South China Sea, and describes how their experiences and successes and failures can benefit island states of the Pacific.

Many problems have arisen because of poor administration and co-ordination, especially where a number of government departments are concerned and where there is joint participation by state and private sector (Lawson 1978). In Fiji, for example, there are already at least five state organizations which are responsible for some part of the fishing industry. Experiences in other countries have shown that in such conditions, conflicts and rivalries may arise which frequently produce a confusion about the functions and duties of such organizations, resulting eventually in sheer inefficiency and resource waste. For example in Malaysia, two major state organizations, the Fisheries Department and the State Fishing Corporation (Lembaga Majuikan) have been developed with little co-ordination in their development plans and functions, with the result that heavy investment has been made in vessels which are not viable and which have incurred the state in a level of overinvestment which is not supported by the resource base or by the aspirations of the fishermen.

The development of fisheries in Sri Lanka in the early 1970s was frustrated by the stagnation that can take place when there is too much involvement of the state in what has been basically a private entrepreneurial industry and where there is uncertainty about the respective roles of the state and private sectors. In the Solomon Islands, another situation may arise which has been a common feature of fisheries development elsewhere: that is the competition between the large-scale commercial fisheries and small-scale coastal fisheries, together with the fact that, in economic terms, it is cheaper for fish to be landed by large-scale commercial fisheries than the latter. However, conflict also emerges because governments frequently desire to increase the artisanal sector of the industry for employment and social reasons although the economic price of this may in fact lead to considerable cost to the economy. The Solomon Islands, because of adjacent current and sea conditions, has a rich marine resource which is capable of much greater exploitation by the islanders themselves. But it will only be fished if the product can be marketed more cheaply than imported or locally canned substitutes. Experience shows that it is difficult for an artisanal or small-scale coastal fishery, which is highly dispersed, to compete with a well-managed commercial fishery which lands fish in large quantities at a well-organized port where there are transport and processing facilities for the internal domestic market.

In the Solomon Islands, locally canned second grade skipjack is gradually replacing imported canned fish. But such skipjack is a by-product of the distant-water tuna fishery, in which the Solomon Islands is only marginally participating, and which as yet offers very little employment and profit to the state itself, being still a form of dependency on foreign enterprise. Under these circumstances, can the existing artisanal fishery be upgraded to become not only competitive with this, but also to yield a higher level of income and employment to local fishermen? If so, should the industry be left to itself to develop competitively, or will it need some help from government, and, if so, what sort of help? In many countries governments have tended to over-participate and attempts to develop the industry too quickly have led to failures. However, given the open resource nature of fisheries, and the inevitable tendency for competitive enterprise to overinvest, which sooner or later leads to over-exploitation of the resource and its ultimate decline in stocks (shown, for example, by Korean coastal fisheries), some government control over its own resources must be introduced. But what form should this control take? Licensing of effort? Closed seasons? Control through co-operatives?

Further, how can capital be raised for a more capital intensive technologically-advanced fishery? Artisanal fishermen have inadequate resources themselves and usually do not have collateral on which to raise loans. This problem has been met elsewhere by organizing fisheries development through co-operatives, but experience has been patchy. As a general rule co-operatives do not succeed when they are imposed from above unless the individuals comprising the venture have naturally co-operative characteristics, and as fishermen are generally strong individualists, all over the developing world there are histories of failures. Governments can organize loans schemes, but experience has shown that their success is dependent upon the existence of certain prerequisites which vary from country to country. What are the pitfalls of loans schemes and the pre-conditions for their success?

In most islands coastal fishery development will be dependent upon accessibility to markets in the interior. This may depend on the introduction of suitable fish processing and transport, but who is to provide this, and the supporting infrastructure? In many countries, government has stepped in, as they have thought, to improve the efficiency

of marketing. However, this has been frequently undertaken on the basis of a misunderstanding and lack of comprehension of all the economic functions performed by small-scale trader-financiers in the fishing industry.

Can the mistakes of the past be avoided by island states which have an array of alternatives to choose from and the experiences of other countries to learn from?

In most of the islands there will already be a small privately owned fishing industry which is probably chiefly concerned with fishing for subsistence. However, with the increasing need to utilize local resources, island states may find that the initiative of the individual fisherman is not strong enough and his knowledge and experience not great enough to meet the growing needs of entrepreneurship which has to move, in a short period of time, into a much more advanced level of operation with a higher level of production and to face problems of organization, management and marketing hitherto unknown.

Some support to make this advance will usually be needed from government sources, though this does not necessarily involve direct capital assistance. It could, for example, involve training in new techniques, marketing management or even the introduction of foreign assistance. Financial aid from a development bank may also be available. Fortunately for the islands in the Pacific, a great deal of experience is available from countries in the region which have had a longer government involvement in developing their fisheries, for example the Philippines, Indonesia, Singapore, Hong Kong and Malaysia, and most of these, with the exception of Singapore, have had considerable experience of government participation in fisheries. This has taken many forms, such as direct government participation and help in developing fisheries, for example the state operations of the Fishing Corporation of Indonesia or Lembaga Majuikan in Malaysia which operate their own vessels in a more indirect style of involvement, for example through the encouragement by subsidies of the development of fisheries co-operatives as in Sri Lanka, Malaysia and Indonesia, which aim to strengthen and broaden the organizational responsibilities for fishing enterprises. Another style is through loans schemes made direct to the vessel owners who have the largest share of capital input into fisheries, or through government assistance with fish marketing, as for example in Hong Kong, where auction and wholesale fish markets or subsidized cold storage or ice plants are provided.

All these means of government participation have been used to introduce innovations and improvements in fishing techniques, and the experience gained by other countries should provide useful instruction and guidance to South Pacific islands. In most countries the drive to state assistance with fisheries development has been prompted by two factors: first the need to develop quickly, at least more quickly than the private enterprise sector would develop on its own, and second, the need to curb the growth in wealth and income of key functionaries in the fishing industry, namely the trader-financiers. They have been claimed to have been both a constraining influence on fisheries growth and also to operate in a way that enables them to extract abnormal profits to the deprivation of the individual fishermen. Fish traders have all been at some times targets of abuse in most Southeast Asian countries.

Government interference in fish financing and marketing has been largely directed towards introducing state functionaries to by-pass the traditional trader-financier. It has been hoped to achieve this in two ways: first, by introducing cheaper loans to fishermen in schemes which have amounted to state subsidies, and second by providing alternative marketing outlets to fishermen. Experience emanating from the countries of the South China Sea, however, has shown that these strategies have not been unmitigated successes and in fact many failures have occurred. For instance, it is evident from the earlier loan schemes for fishermen in the 1960s in Malaysia, that it is not expedient to make cash loans; loans must be made in kind, that is through providing the actual vessels and gear. Even so there are many examples of fishermen who, having received loans in kind have simply sold the vessels and gear to obtain cash. This has prompted governments to look for some collateral against loans. Unfortunately subsistence fishermen can rarely provide the sort of collateral required. Sri Lanka found a way round this by giving loans to members of a co-operative and making them all jointly responsible for repayment. Sometimes in the case of fishing villages it is possible to get group consensus to the allocation of loans but this is usually only successful where there is a strong group loyalty and social sanctions can be enforced against recalcitrants. This too has worked in Sri Lanka, particularly with loans made through the People's Bank, and is generally most successful when applied in small communities in which the individual is readily identifiable in his society.

Where loans are made in order to purchase some new technology, it is essential to incorporate the loans scheme with a training scheme, giving loans only to successful trainees. Without a good collateral or social sanctions the repayment of loans always presents problems. A very successful strategy for the loan agency to employ is also to have monopoly control over at least one essential input of fisheries, for example diesel oil, nets, or other gear, and to make the sale of such inputs dependent upon the repayment of instalments on loans. Another strategy which can be adopted is to give the lending institution monopoly and monopsony control over fish sales. This, however, is not possible unless the government has some means of controlling fish landings, either by force of law, or by the simple geography of the coastline. For example, there must be only a few landing points or harbours, each of which can be subject to control. This is probably most easy to do where the coastline is rocky and the shore dangerous, or when vessels have to approach through a lagoon with a narrow and controllable entrance. If, however, there are a large number of alternative landing points then any control over marketing that the government may seek to enforce could soon be undermined. The most successful example of a government-assisted fishery where loans schemes have been implemented in conjunction with a fish marketing scheme is in Hong Kong, but there are both good policing and geographical reasons for this control.

The use of auction sales for disposal of fish landed is sometimes thought to provide a fairer return to fishermen since it is claimed that open auction bidding assures the fishermen of a fair price. However, this is not necessarily the case. Apart from the 'whispering auctions' of Southeast Asia which are not really auctions in the true sense (since signalling to selling associates across the auction floor destroys the competitiveness of the selling whilst the secrecy in the whispering prevents buyers from being competitive), auctions do not operate in favour of the fishermen unless there is a sufficient number of buyers to make bidding between them truly competitive. In Malaysia for instance, where Fishermen's Associations are replacing Fisheries Cooperatives as the producers' institutions, it was noticed that in certain fish auctions there were, in some cases, fewer than six buyers who, because of their small number, were able to collude to fix a price which was probably well below the level of the freely competitive price. A valid auction requires a large number of buyers and it is not

likely that in the small island states of the Pacific, trading conditions would provide a large enough number of traders to make sales by auction of any great benefit to fishermen. However, where fishermen, either individually or through some organization have recourse to storing their fish, either on ice or in cold storage or in some processed form, it can be withheld from the market to await the most favourable demand conditions. Unfortunately, because of their generally low incomes, fishermen are reluctant to postpone selling their fish landings.

Planning for fisheries development

What can be considered to be the most useful contributions the state can make to the fisheries sector? First must come the provision of infrastructure appropriate to the fish technology adopted. This includes building wharves and landing facilities, and if necessary other port facilities, and also access roads. Some cold storage provision could also be provided and, if the quantity of fish warrant it, an ice plant. Provision might be made for some processing, but this must be made to suit final consumer demand.

In planning fisheries development governments must start with the two economic poles — supply and demand. If supply is more than domestic demand, then export markets should be sought, though this will probably involve some processing of fish and this may be more expensive than supplying the local market and may involve new technology. The search for foreign markets may involve considerable organization and cost, and the economies of co-operating with other islands to do this would provide benefits to all. Co-operation would be needed also to provide a fish collection service between islands, and a shared processing plant thus exploiting economies of scale in export marketing. It is very common, however, for governments and individual fishermen to overestimate the fish resource that is available. Given open competitive entry into fishing, the common property nature of the resource usually causes a level of capital investment in effort which leads sooner or later to excessive effort, reduced landings per unit of effort, resulting from overcapitalization, and ultimately decreases profits and depletes the resource. As this is a likely result of fisheries development, governments should take early steps to control effort below the level of maximum sustainable yield of stocks. This, of course, presents difficulties, but they are not insuperable provided a well organized system

of licensing is enforced, possibly supplemented by closed seasons. However, where more than one state is competing for the resource, as will be common in the South Pacific, then an international agreement to share the stock must be devised and many methods of sharing have been considered in the literature. Unless supply conditions are realistically assessed, there is bound to be an inappropriate level of spending, probably overinvesting. Sub-optimal results will eventually occur, and fishing enterprises will go bankrupt.

Kearney (1976) has discussed the economics of tuna fishing. It can be seen that, at both the level of the deep sea fishing for tuna, in which the distant-water fleets of other countries are involved, and also in the exploitation of in-shore or adjacent water fisheries, the island states can gain by co-operation between themselves. They will undoubtedly lose if they choose to remain and operate as isolated states, thus undermining each other's bargaining position in a world in which, if they stand alone, they will be weak sellers, open to unfavourable terms in their negotiations and exploited by the much more experienced and long established major fishing nations.

It is necessary again, however, to question the assumption of the exploitative nature of the trader-financier functionaries, given the very dispersed nature of fisheries and the small scale of most fish landings, and the distances which fish have to be carried before being sold to the next market functionary. Traditional trader-financiers perform the function of collectors and assemblers, risk-takers against spoilage, and the financial risks involved in being creditors both to fishermen and often to other secondary fish traders. In many countries which have pursued policies to undermine and abolish traditional fish trader-financiers, it has been shown in retrospect that remedies have rarely been successful. There are two reasons. First, it is being realized that the earlier assumptions of the inefficiencies and high costs of their operations were, in most cases, wrong, and second, that attempts to replace them by state-determined institutions have proved far more costly and unwieldy and also subject to administrative corruption. They have, as a result, produced very little, if any, benefit to the fishermen, the fisheries sector as a whole or to the fishing community in particular and have, by and large, constituted a cost to the taxpayer.

The island states of the South Pacific cannot afford to make expensive mistakes with state expenditure. In the short and medium terms at least, the most appropriate

government development strategy may lie in making conditions suitable for the expansion of private risk taking and entrepreneurship in fisheries, by, for example, providing the necessary infrastructure and shore facilities and by initiating training schemes and extension services, leaving the decision-making and initiative to the private sector.

Reasons for failure of loans schemes for fisheries

Earlier loan schemes have failed for many reasons: technological, economic and sociological. The most frequent are as follows:

1. Technical deficiencies are an obvious reason for failure. These are almost certain to arise when modern techniques are introduced without adequate experimentation and technical support, and where insufficient training is given to fishermen.
2. In some instances, fishermen have been given actual cash to spend — relatively unsupervised — on new types of gear, boats and so on. The money has been frequently used for purposes other than that intended and repayments of loans have as a result been heavily defaulted. However, where credit is provided in kind, schemes are sometimes more successful and a lower level of default is experienced.
3. In many countries, insufficient attention has been given to debt management and to methods of disciplining defaulters and bringing sanctions to bear upon them. In some countries, default against government loans is considered to involve a civil action and the police department has been reluctant to cooperate in dealing with defaulters. Where loans have been administered by fisheries departments it is often difficult to obtain the co-operation of the navy or the coast guard in seizing vessels. In some countries, the legal aspect of dealing with defaulters has been inadequately thought out and administered, and this has given opportunities for laxity in instalment payments.
4. In both earlier and present schemes in Southeast Asia there is a great variation in the terms on which loans are granted. Some have been given on trust and most of these have foundered. In most cases, the vessel or equipment does not pass into legal ownership until the borrower has completely repaid his loan but this does not deter defaulters. In many cases, the threat of seizure has not been very

effective unless collateral of substance has been given, because without this the fisherman has so little to lose, especially if he has not even contributed a down payment, and he can probably easily return to his earlier unmechanized traditional methods of fishing and use the still plentiful supplies of household labour. Although few traditional fishermen have any substantial assets to give as security or collateral against loans; in some places where the traditional family house has great prestige value (even though it may not have a very high market value) it has been possible to use this as acceptable collateral. In such instances, the sanction threatened is a social one — the fear of shame in the traditional society.

5. Loans have not covered the diverse needs of fishermen. Most have been given to fishermen at a subsistence level of production in an attempt to raise their level of productivity and income. However, attempts to do this have sometimes failed because the amount given has been inadequate. For example, loans may have been given for the purchase of boats and engines, but not for the purchase of gear, making it necessary for fishermen to turn again to traditional moneylenders, with the result that, although the level of production has increased, the largest part of the benefits has gone to the moneylender or trader-financier and not to the fisherman. Sometimes sufficient fixed capital has been given but this has not been supported by working capital. Costs of fuel, net repair and so on, are heavy and regular outlays and certain operating costs occur irrespective of production, thus there should be adequate provision for short-term loans to meet the requirements for working capital. Such schemes which involve small amounts are unfortunately often more difficult to administer than loans schemes for larger amounts of fixed capital. The need for short-term working capital has again tended to drive the fishermen back into the hands of the trader-financier.

6. Another source of failure has been the unsuitable periodicity of instalment payments. In some instances, the period given for repayment of loans has been too short and instalments badly timed, not taking into account seasonal variations in fish production and income. In most countries this common mistake has now been rectified.

7. The method of collection of instalment payments has not always been adequately considered. Collection is most successfully achieved at the time and place at which the

fisherman receives his cash from the sale of his fish. This can most conveniently be undertaken when there is a centralized landing place and/or market on the coast where fish sales can be controlled. In highly dispersed fishing communities, however, it is very difficult to organize a satisfactory method of debt collection. Even where arrangements are made to meet fishermen as they arrive on the beach or as they receive cash, the system is open to abuse. It is very common for fishermen under such circumstances to arrange to offload part of the catch at sea to another vessel, and they can in certain geographical conditions escape completely to another fishing locality. This is not uncommon in those countries which are highly dispersed geographically, such as Indonesia and the Philippines.

8. Sometimes loans have not been made to *bona fide* fishermen but to boat owners or fish traders who have used the additional capital to exploit fishermen even further.

9. Some schemes in which credit has been used for purchasing new gear have been inadequately supported by training schemes, with the result that the new equipment has soon deteriorated, little increase in production has resulted and loan repayments have been poor. In many countries, the types of gear and engine introduced have frequently been found to be unsuitable for local weather and sea conditions, so that fishermen have often been involved in heavy debt repayments without the support of increased productivity and income to meet their instalments. Some fisheries departments have recognized the onerous situation imposed upon fishermen by unsuitable craft and gear and modified their debt positions accordingly, either by deducting an appropriate amount from the original value of the credit or by replacing such gear with more suitable equipment.

10. Where fishermen have been allowed to purchase their own gear and engines, the internal market has frequently become oversupplied with different competing makes of engine and other gear, often imported from many different countries. This situation has led to the supply of many different makes but in quantities insufficient to support an adequate maintenance and spare parts service. In Sri Lanka it has been necessary to limit the choice of gear to a few well-known and tested makes and to insist that importers of engines maintain adequate spare parts and maintenance services. It is easiest to undertake supervision of the industry at this level when the government is in a position

to control or at least to supervise imports, for example through the issue of import licences as occurs in those countries which experience foreign exchange difficulties. The problem is much more difficult in an open economy in which imports enter under open general licence and the government does not control the use of foreign exchange.

11. A significant reason for failure has been the lack of government-supplied supporting infrastructure investment as, for example, in landing facilities, processing plants, the supply of ice, and roads between port and market. In one or two countries, successful fishermen who have benefited from credit assistance have been sufficiently enterprising to plough back part of their increased earnings into the provision of their own landing facilities, for example on the west coast of Peninsular Malaysia. Artisanal fishermen cannot be expected to provide their own harbour and port facilities, although in some places (such as Manila) private entrepreneurs have organized a lighterage system to offload fish from boats lying offshore.

However, for most artisanal fishermen who are just emerging from a subsistence level of production, the reinvestment of profits as a means of increasing productivity does not usually take immediate precedence in their personal expenditure plans. Before reaching the standard of living at which reinvestment of earnings becomes feasible, many subsistence fishermen prefer to raise their level of consumer goods consumption and to give priority to other needs such as education. There are great differences, some apparently related to race, in the manner in which individual fishermen use increased earnings, and the criteria by which expenditure decisions are made are not necessarily connected with economic motivations.

It seems essential that, before embarking on a credit scheme for artisanal fisheries, governments must ensure that adequate port and landing facilities are available and that adequate road building and maintenance are also provided.

12. In many schemes for fisheries development great constraints have arisen from the inadequacy of the marketing system, and this situation exists in the island states. Marketing constraints arise from various causes, notably occurring when the trading system is monopolized by a ring of traders and where fishermen are tied to the trader-financier by debts. Marketing constraints may also arise,

where the existing marketing system is insufficiently flexible to absorb the increased supplies on the market so that glut conditions occur, giving rise to high spoilage and low producer prices. If island states produce a surplus or land fish which they do not consume domestically there will be a problem of foreign marketing as well.

13. Fisheries development in most countries is impaired by lack of sufficient official supervision at the local level, due partly to a shortage of suitable personnel and extension officers.

14. Some failures can be ascribed to sociological causes; these are less easy to identify and define than economic and technological reasons for failure, and they are also difficult to avoid in any scheme which is introduced in a hurry. Sociological barriers to innovation vary widely among traditional societies. A hastily introduced innovation requiring human resources which have not been previously used is bound to disrupt a whole range of accepted social relationships and may, in the long run, undermine the existing social structure and be detrimental to fisheries development. Traditional sanctions administered through a disciplined group loyalty may be ineffective under a new social structure.

It should be evident from this brief generalization of the causes of failure of credit schemes in Southeast Asian countries that credit cannot be considered in isolation from other aspects of artisanal fisheries development, but must be administered as part of a total well-thought-out package of inputs. The essential components of the package may vary in different environments but each country must identify those which are essential preconditions for the successful implementation of the scheme. Without an adequate level of supporting components, it is very likely that attempts to induce economic growth in the artisanal sector of the fishing industry through the granting of credit will fail.

Co-operatives

It is very widely considered that the co-operative is a suitable organization through which new inputs can be implemented. This institution can operate as both a channel for giving loans and a marketing functionary for the disposal of catches. It can also operate as a seller of technical inputs, for example, nets and gear.

Many observations on how well co-operatives function in fisheries have been made elsewhere. Experience is patchy, and success probably depends on a wide range of preconditions. The co-operative movement can be a successful means of distributing small loans to fishermen with a view to introducing innovation provided:

- (a) The desire for forming co-operatives come from the fishermen themselves and is not imposed from above.
- (b) The government refrains from political interference and does not use co-operatives for its own ends. Too much intervention may be oppressive. The co-operative spirit requires encouragement and attempts at self-government should not be unnecessarily blocked or delayed. Governmental supervision should be properly co-ordinated and based on an agreed general policy on co-operatives.
- (c) Marketing of fish is undertaken in such a way that the bargaining pressure of the trader-financier is reduced. Primary co-operative societies are unlikely to be able to market successfully unless they handle a large proportion of local landings. The great problems in co-operative marketing are the lack of properly trained personnel, especially competent management, an adequate organizational structure, and a system of control in which the fishermen can participate.
- (d) Fishermen should be fully convinced of the economic and social benefits of a co-operative organization. The rights, duties and terms of tenure of membership must be determined beforehand, and members have to understand fully the conduct of co-operative affairs. For this, great efforts should be put into education and training of members, as fishermen's co-operatives belong to the least educated strata of the world co-operative movement.

In those countries where co-operatives have been able to market a considerable proportion of the local catch, fishermen appear to have gained, and the exploitative capacity of the trader-financier has been reduced. This is evident in the trawling co-operatives of Malaysia, in certain areas in India where fishermen's co-operatives are dominant, and

to a lesser extent in Sri Lanka. It is, however, easy for a country which introduces co-operatives into fisheries to lose sight of its prime motivations in doing this. For instance, in South Korea, fisheries co-operatives were developed in the early 1960s to raise the incomes of fishermen and to enable them to get out of debt with trader-financiers. However, there are now, very broadly, two types of so-called co-operatives, neither of which genuinely performs the accepted function of a co-operative. One type covers all vessel owners, and is concerned with loans and marketing but has none of the profit-sharing characteristics of true co-operatives. It really operates in favour of vessel owners, many of whom are well-to-do. The other concerns the ordinary fishermen but as they work as employees, accepting a share of the catch as is the usual custom in fisheries, the share is negotiable with the vessel owners who, since they are virtually organized in an employers' organization, are strong bargainers. Thus the income of the ordinary fisherman is much lower than that of the vessel owner and the original co-operative motive has been forgotten.

Traditional trading and financing

In many countries attempts to introduce wholesale markets or an auction market for fish trade have met with boycotts.¹ Unless there are obvious benefits to the fish trader as well as the fishermen, it is likely that the traditional fish-marketing system will continue because of the threat of action which could come from both fishermen and traders. In many developing countries there are large government-built wholesale markets which are little used. If there had been an understanding of the socio-economic functions of traders in the traditional fishing sector beforehand this waste could have been avoided.

Pacific island states have, in many cases, only rudimentary marketing systems, but as fish trade develops it seems universal that marketing becomes dominated by specialized trader-financiers. When this occurs, the basic assumption, for example, underlying government intervention in marketing has been that small-scale fishermen are involved in spiralling debt with the traditional trader-financiers

¹This is currently the case in Malaysia as described in Lawson (1975).

who perform the essential credit and marketing functions. Unfortunately, traders and middlemen in all communities tend to be the focus of political attack. This is the case especially in countries where the trading function is undertaken by racial minorities, but in all countries the trader is seen as adding nothing to the real value of the product; he is considered to be a parasite and the real value of his trading functions as a risk-taker, a collector, assembler, organizer and redistributor, frequently goes unrecognized.

Most fishermen, owing to the seasonal nature of fishing, are forced to borrow for consumption purposes out of season, but the incidence of debt is highly seasonal and much consumption credit may be given by shopkeepers and general traders not connected with the fishing industry. The necessity for short-term finance which is small in amount and frequently needed at short notice is characteristic of all societies where production is small-scale and seasonal and where no alternative source of income is available. Since most borrowing is undertaken within the traditional sector itself and is based on mutual trust and respect between members of the community, there are few bad debts, debt collection is cheap, and those responsible for giving credit or making loans generally know exactly how much they can safely give. To replace this system with institutional lending would be costly, risky, cumbersome, and would probably also slow down the lending process by the introduction of a bureaucracy.

Motivations for lending by fish traders are not, on the whole, for the extortion of a high rate of interest but mainly for the specific purpose of securing regular supplies of fish and for ensuring a continued business relationship. Very few traditional small-scale fishermen seriously complain about this since they realize the value of the system to them. Their landings are generally too small to give employment to more than a few traders and fishermen themselves are too exhausted once they reach the shore to search for fish buyers. In fact, the proportion of the final price of fish which is paid to the fishermen, generally in the region of 30-40 per cent, is not very different from the return to the primary producer (and may be much higher in certain cases) in many fisheries and also in farming, all over the world.

Field research tends to indicate that much of this attack on trader-financiers is based on both a misunderstanding of the wide array of functions which they perform and an

exaggeration of their power. It is true that, under certain conditions, various degrees of monopoly, monopsony or oligopoly do exist, but these are not necessarily exploitative nor always resented by fishermen. In general, fishermen and trader-financiers have a mutually beneficial, symbiotic relationship, which operates smoothly in a traditional environment. Any interference in this environment is bound to be resented by all parties.²

Entrepreneurship

The roles of the trader-financier as both financier and market functionary must be seen as complementary commercial activities. Although, for example, in many places in Southeast Asia and in India the trader-financier is the owner of the vessels and gear which are used by fishermen, it should not be assumed, without an examination of the socio-economic functions performed under this traditional system of ownership, that the trader-financier is using his position as an owner as a means of exploiting the fishermen or even that the traditional small-scale fishermen really want to become vessel owners themselves.³ A fisherman, or indeed any primary producer who gets 30-40 per cent of the retail value of his produce, is considered to be doing very well, and this is about the level in many poor developing countries. How can fishermen's incomes be improved? It has been thought by some governments that, by making the fishermen into vessel owners, they would become entrepreneurs free from debt.

In reality this may be far from the case. If, under a government's loan scheme, the full cost of lending is passed on to the fisherman, he will effectively be forced to pay a higher price for the use of the vessel he has hitherto been paying to the trader under trader-ownership, because the trader-financier has been making most of his income from his fish trade, not his lending function. In fact the person most likely to benefit from a scheme to increase vessel

²There was an attempt in Ghana to introduce mechanized vessels in the mid-1950s. This was effectively resisted by both canoe fishermen and traders who combined forces on the beach to prevent the landing of fish from mechanized vessels.

³In Malaysia, for example, usually the trader who is also a vessel owner is effectively hiring out his vessel to fishermen in return for being able to secure supplies of fish.

ownership among fishermen would be the trader himself since his main motive for owning vessels is to secure a supply of fish for his own trading purposes. A government loans scheme giving vessel ownership to fishermen would save the trader both capital and risk-taking.

A prerequisite to involving small-scale fishermen in vessel ownership should be an examination of the current system of ownership of gear and vessels and the socio-economic implications of this system. In Malaysia, for example, it is often said that boat owners who customarily receive a 50 per cent share of the catch exploit the fishermen, and if fishermen owned vessels themselves their income would be greatly increased. In fact, however, there are probably good reasons for small-scale fishermen not owning their own vessels. These reasons should be explored before the existing system is disrupted. Case studies of the commercial activities of small-scale fisheries have shown that the return of the boat-owning function of the enterprise earns only 10 to 15 per cent. This is probably well below the opportunity cost of capital in all developing countries, which is usually at least 20 to 25 per cent at free market prices, and may be up to 100 per cent.

Even the most enterprising fisherman may not find the low rate of return of 10 per cent on vessel ownership sufficiently attractive to induce him to invest. If the rate of return on the vessel-owning function is low, the vessel owner needs to combine it with another more profitable involvement in the industry (in the marketing of fish for example) in which he also hopes to earn a sufficient profit for his combined activities of financier and fish-trader to add up to a reasonable rate of return on his capital plus a reward for his time, effort, enterprise and risk-bearing.

Before imposing the capital risk-taking function of vessel ownership on small-scale fishermen, it should be realized that it is not easy to make entrepreneurs out of people who, for decades, have been dependent on the work created by the risk-taking of others. The complete change of attitude which is required does not come quickly or easily. As in the case of all low-income rural producers, it is likely that the small-scale fisherman's greatest need is primarily for a guaranteed subsistence level of income. This is a fundamental and very common motivation in both small-scale fisheries and traditional small-scale farming throughout the world. It might be said that the price paid by the

fisherman for a secure level of subsistence is his willingness to enter into a perpetual debt relationship with the financier-trader. If this is so, he is unlikely to forgo this security easily for the possible hazards of extreme poverty or success. It is by no means established, then, that all small-scale fishermen wish to become entrepreneurs and if they are persuaded to make changes at a pace too rapid for them to assimilate, such changes are doomed to failure.

The role of government

Government has a role to play in promoting fisheries growth, but its role must be one which not only encourages local fishermen to make their own development decisions, but which utilizes in the most viable way the scarce economic resources at its command. Many schemes for developing small fisheries are made ineffective, not by the shortage of loanable funds, but by the lack of an integrated fisheries planning machinery; this is considered here to be the main bottleneck of growth in the artisanal sector.

It seems desirable that the planning of fisheries development should be undertaken by a planning body or commission which would encompass all government departments involved in fisheries — the fisheries and the co-operative departments, state fishing corporations, marketing organizations, fishermen's associations, and so on (Lawson 1974).

In countries in which a fisheries planning body exists, it often has insufficient authority to handle problems which may involve other departments. For example, instances can be quoted of lack of co-operation between the Fisheries Department and the Department of Co-operatives. A fisheries planning body must have full governmental support and must be of sufficiently high status to overcome such interdepartmental friction. The difficulties of forming such a planning body, which may in some countries embody sectional and rival interests, are fully appreciated.

As a rule, governments interested in assisting artisanal fishermen with credit and small loans appear to have adequate internal funds available to support schemes which could be operated as revolving funds to supply boats and gear to artisanal fishermen. However, most governments realize that in order to pursue a policy involving a great number of motor vessels and a consequent increase in production, it is

necessary also to provide two other types of inputs; first those involving heavy capital investment in ports, harbour and marketing facilities, feeder roads, etc., and second those designed to provide supporting services, for example marketing, repairs, extension, etc. and to establish training facilities. As well as facilities for training fishermen, however, there need to be training facilities for managers and members of co-operatives and other organizations and for extension workers.

The major implications of the socio-economic aspects of small-scale fisheries development have been discussed elsewhere (Lawson 1977). But sound development must start from an understanding of the traditional systems in operation in fisheries and fishing communities.

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Chapter 5

Exploitation of the advantages of remoteness and isolation in the economic development of Pacific islands

Nigel Wace

There are no thistles in the pastures, and no eelworms in the potato patches of the islanders who live on Tristan da Cunha. In this small island community, their absence is no small matter: their introduction would be a local catastrophe. This is merely a local advantage in subsistence agriculture — but looking at the whole interaction between man and nature in the Tristan Islands (Wace and Holdgate 1976), I have wondered whether this kind of advantage, which stems directly from remoteness and its resulting isolation, might be exploited more widely, in a trading situation. These observations of a botanist on the absence of some weeds and pests on Tristan set me on a train of thought of which this paper is the result. Although it draws on some ideas from Tristan, it attempts to refer more directly to remote islands in the tropics and subtropics. It reviews briefly the economic uses of remote islands, and looks at some of the ways in which remoteness and isolation might be turned to the economic advantage of island peoples in the Pacific. It regards a degree of isolation as an asset to be preserved and used, rather than an obstacle to be overcome.

Isolation and remoteness are generally seen as severe disadvantages in promoting change from subsistence (or purely local trading) to an international trading economy, because of the high costs of transporting any locally produced goods to distant markets. Market remoteness has thus been a powerful constraint to orthodox economic development. In the case of most Pacific islands, such remoteness is usually linked with a poverty of easily exploited natural resources and local sources of energy. Where investment in economic development, or in education, has been promoted by outside funding, the effect of such subsidy has often been to break down the isolation of the islands in question and

to lead to social disruption by promoting a drift of younger islanders to larger islands or settlements, or even to emigration.

The response of authorities charged with the economic development of remote islands is generally to seek ways of minimizing their remoteness by improving (or subsidizing) transport facilities, through the construction of harbours, airfields etc. Remote islands are thus drawn into the network of international trade and exchange, but on terms set by international transport industries which are largely controlled by organizations outside the influence of the governments of the small islands they serve. Even when the transportation of goods to continental markets is made easier or faster, the terms of trade are still set heavily against most island products because of the additional costs of transportation, when compared to the transport costs of similar goods which are produced closer to their markets. These chronic disadvantages of remoteness to small resource-poor islands are likely to become more acute in future because of the rising costs of fossil fuels for air and sea transport. Such considerations must markedly influence the type of goods produced for export from remote islands which can hope to compete on world markets.

Rendering isolated islands more accessible in order to encourage export of goods (trade), or the temporary import of people (tourism) has the further effect of destroying, or at least jeopardizing, their *cultural* as well as their *biological* uniqueness. For this reason, it is often deplored by conservationists and sociologists, who see a value in the maintenance of the ecological and socio-economic *status quo* which has evolved in, and therefore become adapted to, the local environment. The catastrophic effects of this breakdown of former isolation on biotic equilibria was first clearly recognized and summarized by the English ecologist Charles Elton (1956, 1958).

Keesing (1953) considered Polynesia to consist of five 'economic areas', but changes in communications and the major types of human economic activities since 1953 enable his classification to be revised, as follows:

- (a) small islands without adequate resources for permanent human habitation (e.g. Henderson, Canton Island);

- (b) small isolated islands, or island groups, with poor sea approaches, or on which airfield or harbour construction would be difficult or costly, or would conflict with established land use (e.g. Pitcairn, in the Pacific; Aldabra, Indian Ocean; Tristan da Cunha, Atlantic);
- (c) small islands with commercial resources resulting from mining activities (e.g. Nauru), air staging installations (Easter Island) or military use by continental powers (e.g. Wake, Midway) although such uses may have ceased or been suspended;
- (d) larger and more diverse islands in which orthodox development is still retarded by their extreme isolation (e.g. Marquesas, Masafuera); and
- (e) islands with good communications to continents, undergoing seasonal tourist migrations (e.g. most larger Hawaiian Islands, Tahiti, Fiji), and possibly also experiencing urban settlement by the new immigrants at the same time (e.g. Oahu, Norfolk Island).

This paper is concerned with some possible economic development options of categories (b), (c) and (d), most of which retain at least some of their biotic individuality. Pacific islands in these categories which were inhabited before European contact have also retained at least some aspects of their traditional cultures.

Activities which exploit insular remoteness and isolation

The only products or economic activities which are *not* disadvantaged on islands by market remoteness are those which derive all or a large part of their value from the geographical position or the unique qualities of the island or its environment, or its products or those of the surrounding seas. Such qualities include the special employment, labour, social, historical and cultural attributes of island communities. With technological changes leading to increased speed and ease of long distance transport, isolation and its resulting uniqueness is fast becoming a scarce (but marketable) commodity. Economic activities which exploit isolation and remoteness without at the same time destroying these qualities may therefore be expected to increase in value.

Activities which exploit insular remoteness may be listed as follows. These activities differ greatly in their destructiveness of the existing biotic and social environment.

The testing of weapons of mass destruction or of noxious chemicals: and the use of strategically placed remote islands as military bases or for satellite or cable stations, or as aircraft landing grounds. Atomic bomb tests carried out at Bikini, Eniwetok, Christmas Island, Muraroa and Montebello Islands are obvious examples of the exploitation of insular remoteness. But this is hardly a form of activity which can be classified as 'development', and may be immensely destructive of both natural and manipulated ecosystems, rendering islands where tests are carried out uninhabitable for a long time. Although destructive, such activities lead to the input of very considerable amounts of money, and generate a local demand for goods and services. This economic 'fall-out' effect is common to other forms of more orthodox development, but in the case of weapons testing, because of its reliance on imported technology, islanders benefit only through their provision of labour, and scarcely participate in the activities themselves. Bomb testing is also an irregular activity, not conforming to any systematic timetable, and it hardly leads to any continuous employment.

The use of Ascension Island (Atlantic Ocean) by the American National Aeronautics and Space Administration as a monitoring station on the Atlantic rocket range, and for satellite communications, is a less destructive form of use of a remote island related largely to weapons testing. In this case, the American base on Ascension provides the principal employment for islanders from St Helena. The Ascension facility is thus an important element in the economy of the latter island, where almost the only local employment bringing in money from outside is a British diplomatic wireless station. American bases in the Pacific provide similar local employment opportunities in a few islands.

Communications facilities on remote islands, which may or may not be linked with strategic military use, such as cable and wireless relay stations and intermediate landing grounds on intercontinental aircraft routes (e.g. Azores, Cocos-Keeling, Hawaii, Easter Island) are likely to become less important in future because of the use of satellites for intercontinental communication. The increasing range of modern aircraft also enables them to overfly the widest oceans without refuelling.

While some strategically placed islands may retain their value as military bases, and this form of use will thus make an important contribution to a few island economies (Midway, Wake, Guam, Iwojima), military bases can hardly be considered as a form of permanent 'development'.

The bulk-handling, refining, trans-shipment and treatment of noxious or dangerous fuels or other substances. Islands in the Atlantic and the Pacific have been used, or suggested recently, for the bulk handling, refining and trans-shipment of crude oil. In the Canary Islands, facilities have been constructed for the handling of super-tankers, which are too large or cumbersome to navigate safely in the narrow seas and at the ports of entry in Europe where the fuel is needed. Palau has recently been suggested as a similar trans-shipment point for the western Pacific ports. With each major oil spillage from super-tankers polluting inhabited coasts near centres of large population, the demand to restrict bulk carriage of such noxious cargoes close to densely settled coasts will increase. The use of resource-poor and sparsely inhabited islands, which are well-placed to serve nearby concentrations of population as entrepots for handling and trans-shipment, could extend in future to the bulk handling of liquid petroleum gas (LPG: butane, propane) and to the far more hazardous liquid natural gas (LNG: methane). Islands strategically placed at the sea approaches to large centres of population are likely to attract military interest for defence installations — especially if they also harbour oil storage tanks and fuelling facilities. Although important in the economy of the few suitable islands where such entrepots are established, it can hardly become a widespread form of insular development.

The use of remote islands as dumps for radioactive nuclear waste has been proposed from time to time, and feasibility studies for the use of Midway, Wake and Palmyra islands for these purposes are under way (*Sydney Morning Herald*, 2 October 1979).

The incarceration of unwanted, troublesome, or politically embarrassing persons in places from which it is difficult to escape. The use of remote islands for these purposes is well established historically, whether for political prisoners (Napoleon on St Helena, Archbishop Makarios in the Seychelles), for convicts (Norfolk Island, Masafuera, Andamans, Galapagos) or prisoners of war (Boers

on St Helena). The island continent of Australia is traditionally thought to have been settled by Europeans because of the need to find a new penal settlement, although some historians support strategic motives (Dallas 1969, Swan 1973). The use of islands for these purposes leads to some economic 'fall-out', but is hardly a certain base for economic development, and would be an unpopular use of already inhabited islands.

The temporary detention of plants, animals, or people, in transit between different countries in order to ensure that they are not carrying any pathogens, parasites, or other unwanted organisms that could be harmful to the economy of the receptor country. Although some oceanic islands distant from continents have been used for quarantine purposes, offshore islands near ports are more popular for such use because they usually provide sufficient isolation to prevent the escape of unwanted pathogens, at the same time as easy accessibility to the point of intended import of plants and animals to be screened for infection. Demands for the use of islands as quarantine stations thus have some similarity to the two preceding sub-sections.

The use of remote islands for those purposes would be limited to those islands

- (a) which enjoy some proximity to continental nations anxious to protect their own rural industries from the import of pathogens of their valuable domesticates, and
- (b) which could be used as quarantine clearing stations for testing of new crops and livestock to be raised in the islands themselves.

For biogeographical and historical reasons, Australia, New Zealand and possibly the United States are the only coastal Pacific nations whose economies are so vulnerable, or whose rural export industries have so much at stake by the import of pathogens to make the establishment of inter-continental remote island quarantine stations worthwhile. The establishment of such a facility on Cocos-Keeling Island by Australia is to be completed in 1981 (Australian Senate Standing Committee on Natural Resources Report on *The Adequacy of Quarantine*, 1979, p.48). It must be admitted that the scope for such activities in the Pacific is therefore extremely limited. The recent use of various islands

as a reception points for Vietnamese 'boat people' employs islands to process intending immigrants while providing quarantine protection to people, livestock and plants in the country of intended settlement.

The growth or rearing of domesticated species which can be guaranteed freedom from infection by pathogens. The growth of crops (including forest trees) away from those parts of the world where they are native, has often been more successful than within their native ranges. A prime reason for this success is generally considered to be their freedom from the pathogens with which they have evolved. Rubber in Malaya, coffee in Brazil and *Pinus radiata* in Australasia are examples. Insular remoteness, and therefore a degree of isolation from pathogen attack, could confer on some crops or other domesticates such a market advantage (compared to the same species subject to attack by pathogens which are costly to control) that it could render an island suitable as a site for an economic staple.

The choice of crops which could be used to exploit any such biological advantage of remoteness would depend also upon economic and social factors relating to the labour supply, export and market acceptability of the proposed crop. Given an easily-preserved biological advantage of freedom from pathogen attack, some of the most important of these subsidiary factors (whose operation might well determine whether any particular crop was worth trying in a given island situation) are:

- (a) biological/economic: ubiquity of pathogen(s) affecting cultivation elsewhere, and costs of pathogen control in parts of the world nearer major markets than the island site proposed.
- (b) social/economic: labour intensiveness, and use of possibly unique local skills of islanders; energy demands for cultivation and pre-shipment processing; value in relation to bulk of the exported product.
- (c) marketing/quarantine: existing controls on the import of diseased (or possibly diseased) stocks to potential markets.

To be economically viable in the long term, such island crops should also be able to be protected from infection

indefinitely, and to fill a need that is not likely to be replaced by substitutes. The collapse of coffee growing in Sri Lanka (after coffee rust reached there in 1868), and of New Zealand flax cultivation in St Helena (with the invention of synthetic fibres during the 1950s), provide good examples of important island crops which were quite suddenly rendered obsolete by infection and substitutes respectively.

In brief, any crop or livestock product free from pathogens, to be suitable as an export staple on a resource-poor remote island, would probably have to be non-perishable, of small bulk and with a high value added component. Its production should exploit existing local skills or aptitudes, and should also be labour- rather than capital-intensive, and make small demands for energy or imported fertilizer or fodder.

Freedom from weeds and pathogens can be exploited either because the costs of cultivation of a crop are reduced in their absence, or because the exported product is free of the unwanted organisms, and this freedom is so difficult or costly to obtain elsewhere, and so highly valued by the customer, that he is prepared to pay extra to ensure it. The first, which expresses its benefit in reduced cultivation or spraying costs etc., applies to all crops. The second applies mainly to crops grown for propagation elsewhere, such as the raising of fodder and vegetable seeds, of which the grain sorghums provide a good example.

'Sorghum is fourth in importance among the world's cereals, coming after wheat, rice and maize' (Doggett 1970). The grain sorghums are an important crop in the dry or seasonally dry tropics and subtropics, and provide a good example of the way in which isolation may be exploited in the commercial raising of grain for growth elsewhere. Monaghan (1978) has described how the production of diploid annual grain sorghum seed is becoming difficult in Australia because the perennial tetraploid *Sorghum halepense* (Johnson grass) is a pollen contaminant of the grain sorghum, and the presence of the weed near the crop leads to production of useless seed-sterile triploid plants. The raising of heterotic grain sorghum is also a problem in California, for the same reason (Baker 1972). As the introduced Johnson grass spreads in Australia, the raising of uncontaminated grain sorghum is becoming more and more difficult and costly. Because of their close genetic relationship, it is impossible

to kill the perennial weed in the annual crop, and pollen contamination leads to the dissemination of new weed sorghum with the crop seed — thus further aggravating the problem. In this situation, an island where there is no Johnson grass, but which is climatically suited to the growth of grain sorghum, might establish a profitable industry by raising pure grain-sorghum seed for export to growers overseas. Freedom from the widespread witchweeds (*Striga* spp.), parasitic on sorghum and other grasses, which can reduce crop yields by 50 to 70 per cent, might also be exploited if islands where the parasites are not present were to be used for sorghum grain raising.

Similar crop/weed and crop/pathogen situations, in which weed or pathogen free seed could be easily guaranteed because they were raised in isolation, should be investigated by plant pathologists with an intimate knowledge of tropical crops and their culture. The raising of pathogen or weed-free seed or stock for propagation (rather than as a main crop) would have advantages in many small islands because of the small areas involved, and the small bulk of the product to be exported. Since most established tropical crops are vegetatively reproduced, the scope for this type of seed-raising industry may be limited, at least amongst traditional crops, but investigation should not be limited to these.

Barrau (1956) recognized nine staple food plants in Micronesia and Polynesia:

<i>Pandanus tectorius</i>	Pandanus
<i>Cocos nucifera</i>	coconut
<i>Colocasia</i> , <i>Alocasia</i> and <i>Cyrtosperma</i> spp.	taro species
<i>Tacca leontopetaloides</i>	arrowroot
<i>Dioscorea</i> spp.	yams
<i>Musa</i> spp.	bananas
<i>Artocarpus altilis</i>	breadfruit
<i>Manihot</i> spp.	cassava
<i>Ipomaea batatas</i>	sweet potato

All of these except for cassava and some taros (*Xanthosoma*) were part of traditional island economies at the time of European contact. Coconuts and bananas are the only such plants that have subsequently formed the basis of important export industries. Freedom from pests and pathogens in these crops may be locally important in some islands (e.g.

freedom from rhinoceros beetle (*Oryctes rhinoceros*) in Niue and Raratonga), but it is likely that such long-established crops have already acquired many of the pathogens that affect them elsewhere.

Many other crop plants have been introduced to Pacific islands since European contact, and some such as coffee, tea and sugar cane have become the basis of staple industries. The importance of maintaining Pacific island agriculture free from exotic pests and diseases has been recognized by the South Pacific Commission. O'Connor (1969) listed twenty-one crop plants, together with their pests and diseases. The latter were 'to be excluded from, or prevented from spreading within the area of the South Pacific Commission'. O'Connor's list provides a starting point for the screening of crops presently free from disease, but likely to be good export staples or propagation stock from South Pacific islands:

Banana	Groundnut	Sorghum
Breadfruit	Maize	Sugar cane
Cacao	Mango	Sweet potato
Cassava	Papaya	Taro
Citrus fruits	Irish potato	Tea
Coconut	Rice	Tobacco
Coffee	Rubber	Tomato

It would be worth looking closely at the costs of pest and pathogen control in raising these crops in Southeast Asia (Philippines, Indonesia) or elsewhere, to see whether a pathogen-free island situation (or even the absence of weeds which are very costly or difficult to control, such as nutgrass (*Cyperus rotundus*) and blady grass or alang-alang (*Imperata cylindrica*) which are serious pests in many tropical crops) could provide sufficient savings to render their growth on particular islands competitive.

The export of endemic, natural productions or artifacts manufactured from them, or goods which are unique to island cultures and which cannot readily be made elsewhere. In order to succeed as part of an island economy, such activities must use the unique natural products or special craft skills that are offered on islands, and are not to be found elsewhere. Such unique (often endemic) products and special craft skills, are themselves the result of isolation, and may be difficult to replicate elsewhere. While the export of endemic organisms must surely have a very limited market

(or durability, if the species are taken into cultivation or captivity outside the island), the use of local craft skills is frequently employed to manufacture goods for sale to tourists as souvenirs or curios. The market for such products as hand-carved or inlaid wood, bone or coral artifacts, is greatly increased by the presence of tourists. But tourists are not generally very discriminating, and seemingly genuine artifacts made elsewhere may undercut the local market: plastic boomerangs made in Hong Kong are apparently sold to tourists in Alice Springs!

Atolls have low rates of endemism in their native floras (Fosberg 1974), and extremely limited possibilities for agriculture (Lambert 1978). Most of the endemic plants of 'high' (volcanic) islands in the Pacific are probably not spectacular enough to form the basis of an export industry. Showy garden plants such as the Kermadec pohutukawa (*Metrosideros kermadacensis*) are now cultivated outside those islands, and this is likely to be the fate of any such island endemic plant species sought by outsiders. The local extinction of various endemic species of sandalwood (*Santalum* spp.) in Masafuera, the Marquesas and probably elsewhere in the Pacific islands, illustrates the vulnerability of locally grown island endemic plants to cropping by man once a demand has been established (Skottsberg 1954; Shineberg 1967).

Local cultivation of the remarkable endemic island land plants such as the coco-der-mer (*Lodoicea maldivica*) of the Seychelles or the dragon tree (*Dracaena draco*) of the Canary Islands could hardly provide reliable island income because of the likelihood of their growth elsewhere if any demand for them or their products could be established. A good example of the hitherto successful exploitation of a local island endemic plant is the export of 'Kentia' palm (*Howea* spp.) seed from Norfolk Island (BAE 1978). This plant is popular as an indoor species in Europe, but will not set seed there, and since it takes time for the palms to reach seeding size a plantation of established trees cannot expect to yield marketable seed for some years. But even this Kentia palm seed venture on Norfolk Island may be vulnerable in the long run — it has recently been reported that a large-scale seed production project has been commenced elsewhere (BAE 1978:8). The two species concerned are endemic to Lord Howe Island. However, the establishment of the *Anthurium* and orchid industry in Hawaii supplying American and Japanese markets shows that islands which are climatically and

strategically well placed to supply large markets can build up such a trade — especially in house plants for the temperate zones. With the high labour costs in Australia, showy house plants for sale in Australia might be found in the wet tropics of New Guinea, the Solomons or Fiji; although their import into Australia could pose quarantine problems.

Spectacular island or inshore-breeding mammals, reptiles or birds may provide occasional sales to zoos or to other collectors; but any such trade in endemic (and *ipso facto*, endangered) species such as Galapagos tortoises or iguanas, or Hawaiian honeycreepers, would meet with determined opposition from conservationists all over the world. Perhaps a more promising source of unique island products for export lies in the traditional island craft industries using home grown (but not necessarily native) primary products or raw materials, and supplying tourist markets. 'Souvenir' type artifacts such as coral necklaces, bowls, trinkets, dice, toys, baskets, and other boutique bric-à-brac must provide considerable income where tourism is well established, as in Hawaii, Fiji, Tahiti etc. The use of indigenous and imported hardwoods could be used to supplement or diversify such craft industries on islands near tourist centres.

The conservation of gene-pools of plant and animal species, whose existence or genetic diversity elsewhere is threatened. There has for some time been international concern amongst biologists about the threatened extinctions of wild plant and animal species. Such extinctions are usually due to the direct or side effects of human activities on their habitats. A similar concern has been expressed about the loss of genetic diversity in cultivated plants and in some domesticated animals, owing to intensive selection practised upon them over long periods for higher yields under rather closely controlled conditions of cultivation or rearing in manipulated environments (Vida 1978; Murty 1970). Prolonged selection for these short-term purposes has narrowed their genetic constitution, so that genes resistant to new diseases, or suitable for growth in different environments, are lost (Marshall 1977). These two facets of biological conservation — the conservation both of wild species and of cultivars or other domesticated forms and the wild relatives of plant cultivars — are increasingly seen as important in maintaining the diversity of the biotic world for future use by man, as well as for aesthetic enjoyment.

The easiest places in which to conserve wild or the wild relatives of cultivated plants may not always be within their native ranges, where they are often subject to the direct or indirect effects of economic development of their habitats; but rather in remote situations where they are protected by isolation. Islands offer some advantages for these purposes because of their paucity in natural resources whose exploitation might lead to later environmental manipulation by man.

The conservation of threatened species or gene pools of domesticated plants and animals is unlikely to bring in enough money by itself to serve as an economic staple, unless generously financed from outside. But such a conservation facility could form a useful money-earning adjunct to other activities here described. An example of a small-scale industry established on an island as a gene pool for an economically valuable species is the export from Flinders Chase, Kangaroo Island, South Australia of pure Ligurian queen bees to beekeepers all over the world. The pure Ligurian strain had died out elsewhere in the world, but happened to have been preserved on Kangaroo Island because Flinders Chase is beyond the range of exotic bees established on the mainland.

The conservation of wild plant species threatened with extinction will hardly yield any monetary reward to island peoples, unless some uses can be found for the plants in question. Such 'use' might include display under cultivation, or in wilderness areas where access is sold to visitors. Similarly, the conservation of domesticated species and cultivars which are threatened with extinction or genetic dilution elsewhere is unlikely to yield much income from growers outside the island where such genetic material might be conserved, unless the benefits of genetic conservation for disease resistance, germ plasm diversification etc, are obvious and immediate.

Herbaria and botanic gardens increasingly see an important and growing part of their role as involving the conservation of wild plants threatened with extinction, just as zoological gardens do for wild animals (Simmons *et al.* 1976). The Threatened Plants Committee of the Survival Service Commission set up by the International Union for the Conservation of Nature and Natural Resources (IUCN) at the Royal Botanic Gardens, Kew, England, now collects details of the habitat conditions and likely survival of vascular

plants thought to be threatened with extinction, including all island endemic species. The aims of the Pacific Tropical Botanical Garden (PTBG) on Kauai (Hawaiian Group) established under an Act of the US Congress in 1964 include the collection and cultivation of tropical flora 'of every nature and origin' as well as the preservation of 'species of tropical plant life threatened with extinction'. Its aims also include study of the uses of tropical flora in agriculture (see the journal *Allertonia* from 1975 onwards).

Environment monitoring, or research in the natural sciences which depends upon the remoteness of the island from industrial manufacturing, intensive agriculture, or other concentrations of human population. Baseline monitoring of the atmosphere and hydrosphere for man-made pollutants cannot be carried out close to large human settlements because of the effects of their populations upon their immediate environments. Such monitoring has to be removed to remote places, amongst which some oceanic islands have been proposed as suitable sites (Munn 1973). Scientific activities such as baseline monitoring demand highly specialized facilities, whose use can hardly add greatly to the economic wellbeing of islanders themselves, although they may lead to some local demands for goods and services. Baseline monitoring may also have the effect of restricting the range of man-made substances which can be released into the local environment — for example, of biocides whose widely dispersed residues may have deleterious effects on people. It may thus inhibit some forms of orthodox local economic development.

Despite suggestions that baseline monitoring stations be established on various oceanic islands, in order to sample different air and water masses (Wace 1972), only Mauna Kea on Hawaii has so far acquired a permanent facility for this purpose. Although of undoubted importance globally, baseline monitoring could hardly make an important economic contribution to an island economy. But it is at least arguable that nations which release large amounts of pollutants into the biosphere should fund research to monitor the effects of their activities at a global level, including the maintenance of locally pollution-free environments in remote places where such studies can be carried out.

Weather stations exemplify another form of environmental monitoring, of rapidly changing natural systems. They are frequently situated on islands in the path of air

masses approaching continental concentrations of population (e.g. Azores and Tristan de Cunha in the westerlies of the north and south Atlantic, respectively). Economic benefits to islanders from this source are, however, minute. Automatic instrumentation and sounding of the atmosphere from satellites may further reduce any returns to island communities from this source, even if their territory should be used for this purpose.

Long-term scientific research on the natural environment, mainly in biology, is now established on Aldabra (Western Indian Ocean) and the Galapagos. Aldabra was uninhabited at the time of the establishment of the Royal Society Research Station there in 1969, and would probably be unable to support a permanent human population without outside subsidy. It thus falls into Keesing's category (a). The Darwin Research Station on Santa Cruz (Indefatigable) Island in the Galapagos, established in 1964, brings some money into the islands from international scientific interests, but even with such deep-seated interest in all the natural sciences which these islands display, it is unlikely that the Darwin Foundation attracts sufficient money or generates sufficient long-term demands for goods and services to support a resident human population.

These research and monitoring activities in Pacific islands perhaps offer little prospect of any sustained monetary reward to local inhabitants at present. The establishment of baseline monitoring on remote islands, as with biological conservation stations, depends upon the acceptance by rich developed continental countries of the need to maintain a watch on the global effects of their activities on the atmosphere and hydrosphere. The local services required by such monitoring facilities could perhaps form a supplement to other income-producing activities on a few remote islands, but are unlikely to be an important source of income.

Nationalist feeling in some newly independent islands is now making research activities (at least in the social sciences) more difficult or costly because researchers are being made to pay for the privilege of extracting data to further their individual or employees' interests. Tribesmen in New Guinea who were proud to pose for photographs in traditional dress a decade ago now demand payment. Extension of this proprietary feeling to nature in the islands might bring occasional enhanced rewards from well-financed

researchers, although it is likely to scare away the merely inquisitive researcher (as well as the tourists). But research motivation is, at least in part, encouraged by enjoyment of the 'ambient resource' which also attracts tourists (see p.103). At the very least, the impoverished inhabitants of resource-poor islands may grow to feel that the collection of data about their natural environment (e.g. meteorological observations, photographs) or the taking of specimens of water, rock, soils, plants or animals by scientists should be paid for or taxed as an extractive industry. Botanical collecting on Madagascar is already difficult for outsiders because of the local feeling that such activities should be reserved for local botanists when these have been trained (Ducker, pers. comm.). Growth of such proprietary feelings in Third World countries could possibly bring greater financial rewards from scientific research in politically independent islands. What are seen as free goods at present could well be commercialized in future, as competition between researchers from the developed countries increases.

The exploitation of fisheries and other marine resources near remote islands. Fishing played an important part in the traditional subsistence economies of most people inhabiting remote islands. Commercialization of such offshore maritime resources by outsiders (or by outside capital employing imported technology) has sometimes led to over-exploitation and declining yields because of competition between numerous exploiters (e.g. crayfishing near the Chatham Islands) or lack of any catch restrictions on deep sea fishing boats from distant places (e.g. tuna fishing exploited by Japanese boats near Easter Island). Island proximity to maritime resources might be seen as a feature which could be exploited by peoples inhabiting remote islands situated in biologically productive seas. But the development of long-range and high endurance 'factory ships' which both catch and process fish has probably now removed any such local island advantages. Most marine products are perishable, and need continual refrigeration. It is probable that only inshore marine products for which there is a very high demand, and which therefore command a high price, would form a suitable marine resource for commercial exploitation by islanders. Only such inshore marine resources could easily be protected both from over-exploitation and poaching. Salt water crayfish ('rock lobsters', 'langouste') and other tasty crustaceans (e.g. prawns), holothurians (bêche-de-mer), and perhaps other valuable reef-inhabiting species may be

the only possible species which could be so exploited for export from remote resource-poor Pacific islands.

Seabed mining of manganese nodules in nearby seas, followed by their shore processing using geothermal energy, has recently been suggested as an industry on Hawaii. Such activities must be entirely dependent on an available energy source ashore, and on large capital inputs. But if mining of the seabed for minerals becomes economically worthwhile in future, mid-ocean islands which provide easy access to the abyssal plains could become important collecting or processing stations in future.

The import of people to enjoy scenic and other recreational values in remote islands, together with various forms of sticker trading (of which philately is the best developed) associated with it. Prisons and penal settlements are a form of compulsory recreation for which islands have often been used (see above). Voluntary recreational use of islands — tourism — is the most rapidly-growing of all commercial activities in the Pacific and is an obvious way in which remote islands can exploit their individuality and market some of their unique qualities. Tourism is a 'conceptual resource' (Armstrong 1971), which has been described for the Hawaiian Islands (where it is most fully exploited) as follows:

Hawaii has a number of characteristics stemming from the land, but more important by far than the direct products are newly-appreciated conceptual resources which, economically, are now more valuable. Collectively, these may be called the ambient resource, a combination of such elements as a warm, sensuous, and not debilitating climate; exciting coastal and mountain scenery; warm, clear ocean water; uncluttered open spaces of crop land, forest and park, and one of the most interesting cosmopolitan populations in the world set in surroundings both exciting and peacefully tranquil (Farrell 1974).

Tourism thus represents the marketing of scenic and other values to people who are temporarily imported for the purpose. Since mass tourism demands reliable communications (usually by air), it endangers, if not destroys, the biological advantages and cultural uniqueness engendered by remoteness. Quarantine controls are likely to be far harder to enforce if tourists are imported in large numbers. There

are thus possible conflicts between the side-effects of mass tourism, and the exploitation of the biological advantages of isolation in small islands. The overall economic and social impacts of tourism on Pacific island communities were reviewed by Farrell (1977).

Many small states and territories issue their own postage stamps in numbers far exceeding their postal needs. These pictorial stamp designs attempt to capitalize on various aspects of the regional 'personality' — especially including images of unique wildlife, inaccessibility and 'romance'. Small islands are notably successful in exploiting this market. Island territories, and island colonies of larger states also exploit this philatelic market with success: e.g. Chatham Islands (New Zealand); Christmas and Norfolk Islands (Australia); Easter Island (Chile); Tristan da Cunha, St Helena, Ascension and Falkland Islands (Britain).

Because most of the picturesque stamps used for small islands are sold direct to collectors, rather than used for postal purposes, philately is really a kind of sticker trade, or a sort of vicarious tourism. Since philatelic sales often exploit remoteness and inaccessibility, the possibilities of issuing stamps as a form of income from such sources for remote isolated islands should not be overlooked in any plans for their economic development. From the point of view of resource conservation and the maintenance of the socio-economic *status quo*, philatelic sticker trading is an admirable activity. It brings in money without in any way polluting, disturbing or destroying the local island environment.

Summary. Many activities which exploit the advantages of insular remoteness are outside the scope of this paper, which is concerned mainly with those which derive their value from the interaction (or lack of interaction) between useful and harmful organisms. These seek to capitalize on the differing abilities of crop and weed, of host and pathogen, or of prey and predator, to disperse. Their exploitation on a remote island thus depends primarily on an understanding of the transmission and costs of control of disease in domesticated plants and animals, as well as an understanding of insular climates and ecology. As with other industries, their exploitation must depend also on familiarity with the purely economic aspects of primary production, especially the costs of labour, transport and marketing of island products.

Biologists who use theoretical models to predict the best strategies to employ for the control of pests on crops (e.g. Conway 1976; Smith and Pimental 1978) rarely consider the possibility of removing the crop outside the geographical range of its pests or pathogens. It is here suggested that in costing any new crop or livestock venture for island trials, the prospects of excluding entirely the pathogens or the troublesome weeds of that crop should be looked at. This involves a study of the costs of controlling such pathogens and weeds where the same crop is raised elsewhere. The present approach adopted to quarantine aspects of primary industry in Pacific islands is summarized by Firman (1977). It is to keep out heterotrophic organisms from elsewhere, which have been shown to be, or might become, economic pests. I suggest that in the development of island agriculture we should seek out just those crops whose culture elsewhere is difficult or costly because of pest, pathogen or weed problems. The difficulties of costing many aspects of crop protection have been discussed (for oil palm) by Wood (1977), who stresses that pest control economics is one field where economics and ecology could get together to their mutual benefit.

The first three categories in this section are not further considered here. Tourism is relevant to this discussion mainly because it is capital-intensive, and therefore implies some outside control, and because it breaks down insular remoteness. Marine resources can be used for the benefit of islanders only if they are protected from outside exploitation or poaching within waters under territorial claims, but their exploitation, either for subsistence or export, forms an important part of many island economies.

In all the uses of islands discussed here, it has been assumed that the exploitation or development of local resources employs the high energy and generally capital-intensive methods of 'neotechnology' according to notions of profitability which are implicit in orthodox western economics. Questions of the long-term stability or permanence of such economic systems, or of who profits from the types of development described (Keesing 1975), are not addressed here. In the next section, the examples of activities which exploit the biological advantages of isolation are mostly less destructive of insular resources than most of those described above. They are more labour- and less capital-intensive, and seek to retain the main value of the local resources in islanders' hands indefinitely, employing only 'appropriate' technology.

The previous discussion suggests that their isolation may best be exploited in Pacific islands by growing some carefully selected crops for seed, supplemented where possible by local craft industries, and by quarantine, biological conservation, and perhaps monitoring and research activities. An effort to find new crops which exploit both the climatic advantages and proximity to tourist markets as well as the biological advantages of isolation might also be pursued. Some possible crops are suggested in the next section.

Crops possibly suited to some Pacific islands

In suggesting new crops for Pacific islands, the experience of Norfolk Island should be borne in mind (Butland 1974, quoted in BAE 1978):

In the 60 years since Norfolk Island became a territory of the Australian Government, the economic history of the primary sector of the island's economy has consisted of a series of booms and slumps. The pattern has been depressingly similar with each and every 'development'. Rosy opportunities are seen for the new crop, product or industry. A surge of activity galvanises the labour force of the community. Unused land is ploughed, new factories are built, markets sought and established, and the yield from the development increases year by year. Many islanders exiled from their homeland by its previous economic stagnation return to share in its new prosperity; some mainlanders participate in the same way.

Then the bubble bursts. Persistent transport difficulties, climatic hazards, crop diseases, mainland competition, over-production, poor marketing, import restrictions and falling output are but a few of the repetitive sequence of reasons to convert the promising development into yet another depressing failure to make the island's economy a viable one.

Such has been the story of the lemon seed and peel activity of the immediate post-World War I period, of the banana export trade of the late twenties and early thirties, of the passionfruit and guava pulp heyday of the late thirties and early forties, of the bean seed industry of the fifties and of the short-lived whaling

prosperity of the early sixties. More persistently tried, but equally more short-lived have been the numerous attempts to establish a fishing industry, the last effort ending in the burnt-out fish factory of 1972.

In all these 'developments', the products have been either the harvested crops such as bananas and bean-seed or the primarily processed products of such harvests, into which category can be included the frozen fish fillets, the whale oil, the passionfruit pulp and the butter and pine-wood. In some cases the industrial component of this primary processing provided employment for a few hundred folk, in addition to the harvesting labour force.

Most of the crops suggested below — nuts, fruits, flowers, craft timbers etc. — belong to what might be described as 'boutique agriculture', catering mainly for tourist markets. They would therefore be well suited to cultivation on islands which can supply nearby tourist centres, and which can also use the transportation facilities associated with mass tourism, especially the adventitious use of air cargo to fly them to major markets on the surrounding continents. They would preferably need to be more-or-less imperishable products, whose production and local processing make small demands for energy or imported processing materials, and with a low bulk-weight to value ratio.

Nuts and luxury fruits. Amongst the most successful of commercial crops grown in tropical islands have been various nuts and fruits raised in plantations, such as coconuts, bananas, Macadamia nuts. Such products are not perishable, and have a low bulk to value ratio, so that handling and transport costs are small. Their cultivation is also labour-intensive, and their products demand some post-harvest processing, which further raises their export value, and may be an advantage in over-populated islands.

Barrau (1956) lists a number of 'supplementary food plants' grown in Polynesia and Micronesia, some of which have products of small bulk but high value (e.g. nuts, seeds and pulses). These should be investigated for growth in islands lacking staples, especially if the culture of the crops and their pre-export processing is labour-intensive, and if the same crop has a number of uses. Some suggestions of such high-value crops whose cultivation on islands

(without the pathogens which plague them elsewhere) might be investigated, are listed below:

Aleurites moluccana candlenut Euphorbiaceae

Native from Malaysia to Queensland and Polynesia, but now widespread in the tropics. The oil-rich nut is traditionally used for lighting. The nuts are edible, and their extracted oil has a variety of uses.

The related Chinese Tung-oil tree (*A. fordii*) from Central Asia might also form the basis of useful island industries in more arid islands.

Anacardium occidentale cashew nut Anacardiaceae

Native to tropical America, but widely grown in the tropics, including Tahiti and Yap, where it is said to produce very well, but where the nuts are not used (Barrau 1956). The edible nuts need some hand-processing before export, but are light, durable and sought-after as luxury foods in rich countries.

Macadamia integrifolia macadamia nut Proteaceae

Native to Queensland, but the basis of an important and profitable industry in Hawaii. Also being grown commercially in California and Australia. Since it grows in a variety of situations on the main island of Hawaii, and tolerates rocky ground, it might well be a suitable crop in otherwise waste land on rocky lava flows in volcanic islands. In addition to the usual biological and economic factors investigated before introducing any new crop, analyses should be made of the costs of pest control on macadamia in Hawaii, notably the southern green stink bug (*Nezera viridula*).

Simmondsia chinensis jojoba Buxaceae

Native to southern California and Mexico, growing in deserts with rainfall as little as 100 mm annually, and apparently salt-tolerant. The nuts are edible, but valuable chiefly because of the very stable liquid wax ('oil') obtained from them. This has many of the same properties as sperm oil, for which no satisfactory and cheap substitutes have been devised. Since sperm-whale stocks are declining because of competitive over-exploitation in the North Pacific and Southern Oceans, jojoba plantations may become very profitable in future.

Other oil seed species listed in the National Academy of Sciences Report (1975), which might be investigated for island use are:

<i>Orbignya martiana</i> and other species	Babassu palms
<i>Cucurbita foetidissima</i>	buffalo gourd
<i>Caryocar</i> species	pequi, planalto and other spp.
<i>Jessenia polycarpa</i> and other species	seje, coroba

Nursery gardens, horticulture, cut flowers. A striking feature of international horticulture in the 1970s was the growth in the movement of ornamental plants and cut flowers by air to distant destinations. Considerable industries have grown up to supply the large conurbations of the northern hemisphere with house and garden plants, especially in seasons when they are unobtainable in flower from local sources. Some examples of this industry, some of which are of quite long standing, and pre-date air transport, are:

- (i) 'Mimosa' (*Acacia dealbata* and other winter-flowering Australian wattles) from the Mediterranean coast to Britain at Christmas time.
- (ii) Daffodils (*Narcissus pseudo-narcissus*) and other showy flowers grown from early flowering bulbs and corms; from the Channel and Scilly Isles to Britain in late winter.
- (iii) *Protea*, *Leucadendron* and other long lasting cut flowers from the Cape fynbos vegetation; from South Africa to Europe, especially during the northern winter months.
- (iv) As (iii), but a great variety of miscellaneous plant parts (leaves, stems, twigs, flowers, woody fruits); from South Africa to Japan for their 'ikebana' (elaborate flower arrangement) competitions.
- (v) Cultivated orchids, *Anthurium* and other aroids, and many tropical and sub-tropical flowers which

can be grown in the open; from the Hawaiian Islands to California and the eastern USA, especially in the northern winter months.

- (vi) Many house and garden plants, also cut flowers; from New Zealand to California, especially in the northern winter.
- (vii) Proteaceae (mostly); from the quonkan (sand heath) vegetation of Western Australia to the eastern states and probably overseas (?) as (iii).

The scale and sophistication of this industry on the Taranaki coast in New Zealand is most striking. Most of the garden plants from there seem to be going to California, but Japan was seen as a developing market also.

Since there are obviously well-developed major markets for this type of product in the rich countries bordering on the North Pacific, islands there which have easy access to major airports could possibly develop a trade in tropical house-plants and cut flowers, especially in the northern winter months. Cut flowers are light, and easily packed for air cargo on the long-haul tourist routes. The species need not be native to the islands where they are grown: the Hawaiian orchid/*Anthurium* etc. trade exports only plants exotic in Hawaii. *Kentia* palms grown for seed on Norfolk Island are endemic on nearby Lord Howe Island.

Imports of cut flowers into Australia for ornamental purposes have been growing rapidly since 1970, and trade is now worth some half million dollars a year. There is currently much debate within the florists' trade here (which also *exports* cut flowers grown in Australia) over whether such imports should be allowed to continue, because of the danger of importing on them pathogens of horticultural and agricultural plants important in Australia (see submissions 1, 3, 4, 13, 15, 47 to the Australian Senate Enquiry on the adequacy of Quarantine Regulations, February 1979). If imports of cut flowers into Australia should be restricted because of such quarantine considerations in future, a large and growing market might be thrown open to an island industry in the Southwest Pacific which could guarantee freedom from stated pathogens. The demand for imported cut flowers in Australia is highest during our winter months, and the principal sources of supply in 1976-77 were:

USA	A\$128,340	largely from Hawaii?
Holland	76,661	
Singapore	74,213	probably mostly entrepot trade?
Japan	62,496	
New Zealand	40,607	
UK	38,713	
Brazil	21,600	
Taiwan	21,499	
Spain	20,392	
Thailand	9,415	
West Germany	2,036	
Italy	1,390	

The establishment of an industry growing suitable orchids, aroids or other winter-flowering tropical house plants supplying the Australian market might already be possible on Norfolk or Lord Howe Islands, which are within the Australian quarantine area. Apart from Singapore most of the present suppliers of cut flowers to Australia are outside the tropics and in the northern hemisphere, and can thus use the seasonal advantage of sales to Australia during their spring and summer months (May to September). Some investigations might be made of the suitability of winter flowering species grown in the open in islands near the major airports in Tahiti, Samoa, Fiji or the Solomons, to supply the Australian market with tropical species which cannot be grown in New Zealand, or which could supply the entrepot trade in Singapore.

Tropical hardwoods and associated craft industries.

Colonial administrators of island territories and European visitors in the eighteenth and nineteenth centuries, often saw the naturally impoverished floras of the islands as one of the principal impediments to their economic development. The famous attempt to take the breadfruit (*Artocarpus* spp.) from Tahiti to the Caribbean in HMS *Bounty* was only one of the first and best known examples of these attempts to diversify insular floras by moving useful plants from one part of the world to another. Some tropical islands in the Pacific may be rather well stocked with an unexpected variety of tropical species which have been introduced at various times. St Helena in the Atlantic is now a kind of phytogeographical 'Disneyland' of plants from all over the world, and many fine tropical and sub-tropical hardwoods flourish neglected in the steep uplands there. Some islands in the Pacific may similarly contain a number of exotic trees: their nature and possible uses should form part of any

investigation of local resources. The performance of introduced species can often act as a better indicator of the potential of the environment to support new primary industries than soil analyses and climatic records by themselves.

The ability of valued exotic timbers to grow on little-used parts of high islands should be investigated by assessing the performance of those species which have been introduced in the past. Craft industries based on woods which are costly, or hard to grow elsewhere (perhaps because of disease, termite attack or competition for more remunerative use of the land they occupy) might thus be built up on some islands, producing high quality wooden goods for sale to tourists or for export. While large-scale timber production on remote islands is unlikely to be competitive with continental production, woods suitable for special purposes (such as sandalwood, in the past) could possibly be grown and harvested, or supply the raw material of labour-intensive craft industries making objects such as boxes, bowls, table games and trinkets. Such industries are unlikely to provide an economic staple, but woods with special qualities might form a useful supplement to other activities, and could exploit local traditional skills.

Summary and conclusions

The narrow range of economic activities suggested here which try directly or indirectly to exploit the advantages of insular isolation would, if adopted, hardly lead to spectacular increases in the standard of living of islanders. They might, however, provide some stability or employment and income, and supplement traditional forms of livelihood. Because most of them are based on qualities and resources which are indigenous to the islands, and do not envisage the breaking down of their isolation, nor demand the investment of large sums of overseas capital, their adoption should not lock the future prosperity of the islands entirely into that of other states in a form of economic colonialism. They concentrate on the unique, and on things which cannot be done, or grown, or made elsewhere.

Any form of economic development in the Pacific islands will probably have to come to terms sooner or later with the effects of the tourist industry, the growth of which has tended to displace almost all primary industry

wherever it has become firmly established. Even the raising of perishable foods on islands such as Norfolk and Lord Howe has not been much stimulated by the presence of large numbers of tourists there (BAE 1978) — it is more rewarding to the islanders to provide other services to tourists, such as transport and accommodation, and to import the food they need from Australia. Even the Hawaiian Islands, with upwards of 5 million tourists a year, grow only 40 per cent of their food requirements (Armstrong 1973), although the maintenance of large export industries growing pineapples on Lanai and sugar cane on Oahu and the other islands, illustrates that such primary activities can flourish close to large tourist centres.

Almost any form of economic development which leads to the large-scale import of money to remote islands, whether based on extractive industry, tourism, or even mere welfare payments, may easily render them dependent on that single industry (or charity) alone. Intensive commercial cropping of single species, notably sugar, coconuts, maize, or tea in the tropical oceanic islands, and a variety of temperate fruits, cereals and fibre in the temperate islands, profoundly affects both insular ecosystems and human cultures. Gouron (1963) describes how the advent of mechanization, following on the importation of slave and indentured labour in sugar islands such as Mauritius, Fiji or Barbados, leads to large populations which become trapped on their islands because of poverty and the resulting lack of education, and therefore the ability to emigrate and compete with outsiders overseas. In these circumstances, ecological pressures on insular environments become intense and difficult to control. Such single resource economies are also extremely vulnerable to fluctuations in the demand for commodities, which puts their remaining indigenous biota at risk from destructive exploitation in times of economic hardship. It is important in the economic development of remote and resource-poor islands that any new economic activity should not entirely displace subsistence agriculture. If isolated communities become dependent on imported food or fuel or other essentials they are then extremely vulnerable to any rises in the costs of those materials — but without the human or material resources to provide the flexibility to find substitutes easily. Isolated islands dependent on imports for all essentials are particularly vulnerable to rises in freight rates brought about by rises in fuel costs. Such rises in the costs of fuels could render a small resource-poor island depending on imported fossil fuels and fertilizers

to produce goods for export, almost pathologically dependent on outside support, and subject to depopulation in hard times, if there is anywhere for the islanders to go.

On the other hand, the high costs of imported fuels and fertilizers and other imports may make isolated islands particularly valuable places in which to try out some 'soft' technology options such as in the use of solar, wind or other sources of renewable and non-polluting energy, or the efficient recycling of plant debris and animal wastes as fertilizers. Isolated islands which lack capital or energy sources may therefore be useful places where new types of industry could be tested. Resource-poverty and remoteness may provide an umbrella under which labour-intensive and resource-conserving economic activities could be developed because of the protection that isolation provides from wasteful (but, in the short term, cheaper) production, using the capital intensive and resource-consuming techniques of normal capitalist development.

Kamarck (1976) and Lipton (1978) both stressed the importance of aiding rural, and especially agricultural, sectors of the economy in the development of Third World countries. Porter (1978), in reviewing Kamarck's book, stated:

Research on tropical agriculture has been sadly neglected in the past ... although the new thrust in tropical agricultural research 'may well rank in history as one of the most significant [decisions] in the last third of the twentieth century...' it, by itself, will not be enough. Individual countries must inaugurate programs of local adaptive research.

In finding economic activities suitable for remote resource-poor Pacific islands, such local adaptations obviously involve economic and social as well as biological and ecological factors relating to any proposed crop or activity.

Scientific studies of island plant and animal communities have recently been seen as providing a valuable aid in understanding the spatial and environmental requirements for management of national parks (Diamond and May 1976). On a broader scale, small remote resource-poor islands provide situations in which the global economic conditions can be modelled and studied under conditions in which the balance between primary natural resources in the biosphere and human

numbers are easy to understand, and where the depletion of resources by unwise exploitation or by pollution is immediately obvious.

On a more philosophical note, capitalist economics seems to many non-economists to be rooted in several notions that are becoming harder to accept in a more crowded world where the poorer nations are demanding a larger share of the available resources. These notions are:

- (a) that there will always be more primary resources for exploitation, if only by looking harder, or looking somewhere else;
- (b) that technology will always be able to find substitutes for materials and fuels that may nevertheless run short; and
- (c) that the same technology will always be able to find some ways of alleviating the unwanted side effects, or externalities, of its operations, although much damage may be done to environments or people (or both) while the means of alleviation are being sought.

In other words, a careless technology which is reacting to and disciplined only by the forces of a manipulated market is enormously destructive of the integrity of both the biosphere and the fabric of human society.

Isolated islands to which the above notions are not so readily applicable may be rather valuable places in which to model a new kind of stable and self-sustaining economics. Islands are often places where (in contrast to the above):

- (a) There are almost no primary extractive resources, and nowhere else to look for new ones.
- (b) There are low levels of education and limited capital investment and therefore limited available technology to call on.
- (c) The 'externalities' which are elsewhere disregarded, bought off, or shifted on to other people cannot be discounted because integration in a small community makes social and environmental costs or any form of development immediately obvious to the whole community.

Some of the issues raised for development economics by the application of 'neotechnology' to small 'paleotechnic' self-sufficient island communities have been discussed by Bayliss-Smith (1977), who stressed that economic development of such island communities is a retrograde process when measured as the return on perceived energy per unit of labour input.

Since the time of Charles Darwin and Alfred Russel Wallace, studies of isolated islands have taught us a great deal about the nature and mechanisms of autogenic changes governing the organic world. A study of these simple, bounded systems first gave an insight into the partitioning of biological resources between species in nature, and the derivation of organic diversity. Clarke (1977) has argued cogently that small isolated subsistence-farming communities in the tropics embody many features of stable energy flux and permanent ecological stability; in contrast to the wasteful, inefficient 'neotechnology' promoted by orthodox energy-intensive and capital-intensive development. In a world where more people are competing for a finite stock of primary resources, and interdependence is becoming more obvious, studies of economic options in small resource-poor islands may be valuable in modelling our likely future options in the planet as a whole.

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**Section III
Population and
Migration**

Chapter 6

The demography of micro states

John C. Caldwell, Graham E. Harrison and Pat Quiggin

According to the 1976 UN *Demographic Yearbook*, there are 224 identifiable inhabited regions in the world. Four of these carry no permanent population (e.g. British Antarctic Territory) and the rest vary in population from the People's Republic of China with an estimated population of 771 million in 1970 to Pitcairn Island with 92 residents in 1971. In this paper we have defined micro states as those places with populations of less than half a million in 1970. In this category come seventy-seven identified regions with permanent populations with a total population of 9.45 million. That is to say some 40 per cent of the states have but one-quarter of 1 per cent of the world's population. Put another way, 40 per cent of the states have a total population less than that of the states on the eastern seaboard of mainland Australia.

In the range a half million to one million lie another nine states of which two (Fiji and Mauritius) will be referred to in the paper because of their particular interest to Australia. Five of the other seven are outside the Asia-Pacific region.¹ Three other states have been excluded because they are rather different to the rest. They are the Holy See in Rome, and the Isle of Man and the Channel Islands which can be taken for all intents and purposes as integral parts of Britain.

The analysis is a global one, partly because this allows greater numbers on which to base generalizations, and partly because inter-regional similarities appeared to be greater than the differences. It includes independent, internally self-governing and fully dependent territories,

¹The seven are: Botswana, Lesotho, Namibia, Guyana, Cyprus, Kuwait and Oman.

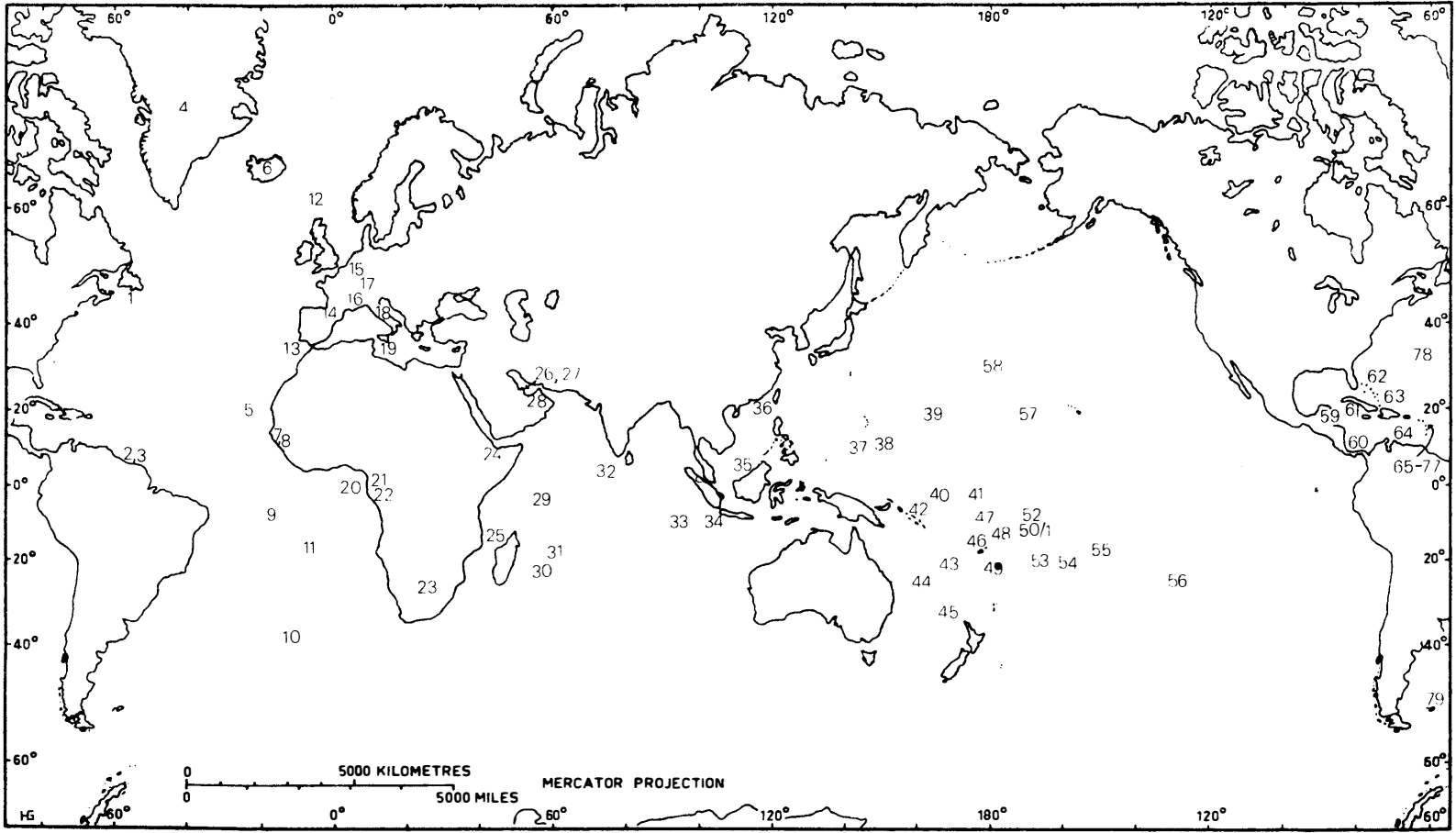


Fig. 1 Location of micro states.

Key to location of micro states on world map

- | | | | |
|-------------------------|--------------------------|------------------------|--------------------------|
| 1. St Pierre & Miquelon | 21. Equatorial Guinea | 41. Kiribati | 61. Cayman Is |
| 2. Surinam | 22. Gabon | 42. Solomon Is | 62. Bahamas |
| 3. French Guiana | 23. Swaziland | 43. New Hebrides | 63. Turks & Caicos Is |
| 4. Greenland | 24. Djibouti | 44. New Caledonia | 64. Netherlands Antilles |
| 5. Cape Verde | 25. Comoros | 45. Norfolk I. | 65. British Virgin Is |
| 6. Iceland | 26. Bahrain | 46. Fiji | 66. US Virgin Is |
| 7. Gambia | 27. Qatar | 47. Tuvalu | 67. St Kitts-Nevis |
| 8. Guinea-Bissau | 28. United Arab Emirates | 48. Wallis & Futuna Is | 68. Anguilla |
| 9. Ascension | 29. Seychelles | 49. Tonga | 69. Antigua |
| 10. Tristan da Cunha | 30. Reunion | 50. Western Samoa | 70. Montserrat |
| 11. St Helena | 31. Mauritius | 51. American Samoa | 71. Guadeloupe |
| 12. Faeroe Is | 32. Maldives | 52. Tokelau | 72. Dominica |
| 13. Gibraltar | 33. Cocos I. | 53. Niue | 73. Martinique |
| 14. Andorra | 34. Christmas I. | 54. Cook Is | 74. St Lucia |
| 15. Luxembourg | 35. Brunei | 55. French Polynesia | 75. St Vincent |
| 16. Monaco | 36. Macau | 56. Pitcairn I. | 76. Barbados |
| 17. Liechtenstein | 37. Guam | 57. Johnston I. | 77. Grenada |
| 18. San Marino | 38. Pacific Is | 58. Midway I. | 78. Bermuda |
| 19. Malta | 39. Wake I. | 59. Belize | 79. Falkland Is |
| 20. Sao Tome & Principe | 40. Nauru | 60. Panama Canal Zone | |

only thirty-five (44 per cent) being independent. The reasons for the lack of distinction are that the demographic problems appear to be similar, that the distinction between internal self-government and independence is often small, and that the transition to independence is occurring all the time. It might be noted that micro states already make up one-quarter of the United Nations membership and, when the last dependent territory disappears, may make up 40 per cent of a total membership of 200 countries. By the definitions employed here, all Australian colonies except New South Wales and Victoria were micro states in 1900. While the grand survey includes nearly every micro state in the world, the focus is on Third World micro states and all generalizations made are valid when attention is confined to them alone.

This is not the first demographic study of micro states. In 1962 the Institute of Commonwealth Studies at the University of London began a series of seminars on the subject of micro states that ran for two years. The resulting published papers (Benedict 1967) concentrated primarily on the territories of the British Commonwealth. In those days, far fewer of the micro states were independent than they are now and the focus of interest was therefore on the pre-independence stage. In the article on demography, Smith divided the territories into three groups based on density, a technique we have chosen not to employ here because it does little more than separate out the islands from the mainland states Smith (1967:11).

A later series of studies was presented at Massey University, New Zealand, in December 1974 (Kosinski and Webb 1976). In this collection there is a paper by Roberts which treats micro states as having populations under 2 million. However, his own table (1976:38) shows that the break in size comes at the 1 million mark. He comes to no conclusions that differ from ours, but, in concentrating on the Caribbean, he fails to lay enough stress on the particular characteristic of the Pacific and Indian Ocean micro states, namely their extreme isolation (Ward 1967:96).

The important point in terms of demographic analysis — and probably in terms of all analysis — is that the micro states are not just smaller versions of macro states. They have very special characteristics of their own.

The first difference is that they are overwhelmingly islands or coastal enclaves: 79 per cent are islands, 15 per cent are coastal, and only 6 per cent are inland. It was this isolation which explained why they were not assimilated by other states — why indeed it is often very difficult even to suggest what they can be attached to for administrative purposes. The coastal enclaves were usually the isolated, colonial trading posts on the tropical, mangrove-girt coasts of the Atlantic and were (and often still are) almost as isolated as islands; only recently have their border areas been effectively controlled by viable larger states. Perhaps the time factor is connected with the medical advances which have allowed penetration of and habitation in these zones.

However, this is not a complete measure of their distinctiveness. Such a measure is better provided by the following statistics. Eleven (14 per cent) of them (all but one in the Atlantic and Indian Oceans) were not settled before European discovery. Only half have populations which are predominantly indigenous; considerable free or forced migrations from Europe, Africa and India settled or re-settled most of the Atlantic and Indian Ocean islands. Many fewer retain unchanged a great deal of the original culture: 85 per cent are predominantly Christian in religion. In terms of language, 91 per cent have a European language as the official language and 87 per cent have a majority of the population able to speak either a European or a Creole language. The exceptions tend to be Arabic speaking areas.

The fact of the matter is that most micro states are no longer culturally closest to the nearest indigenous populations of the great land masses. They are products of a European maritime culture of the last five centuries, and demographically most can only be understood in that way. This will be demonstrated during the analysis by comparing them with the nearest parts of the Third World — in the case of the Pacific with Southeast Asia and in the case of the Caribbean with temperate South America and also with Middle America.

This is not true of all micro states, and perhaps the best demographic illustration of this can be provided by subdividing them according to the contemporary level of mortality: expectations of life at birth over 60 years, 50-59 years, and under 50 years. Almost three-quarters are found in the first group. The full significance of this

can be appreciated only by comparison with continental tropical areas (the great majority of micro states are tropical): tropical Africa and South Asia have regional expectations of life at birth under 50 years, Southeast Asia of just over 50 years, and Middle America and tropical South America of just over 60 years.

The nature of the micro states is best delineated by examining the exceptions. Expectations of life at birth under 50 years are found in Equatorial Guinea, Gabon, Guinea-Bissau, Swaziland, Belize, the Comoros and the Maldives. All of these states are independent, but that may be the result of some of their other characteristics rather than explaining their high mortality. Five are wholly or partly mainland African states and one is a mainland state of Middle America. All but one is of predominantly indigenous populations, and in at least five the majority of the population can speak no European language. They are, then, exceptions to what has already been said about maritime cultures.

Those micro states with expectations of life at birth in the range 50-59 years are nearly all small West Indian islands with populations of largely African origin — the exceptions being two independent island states just off the coast of tropical Africa and one South American enclave with a predominantly Amerindian population.

One point should be noted. Several Middle Eastern mainland micro states exhibited low expectations of life at birth until recently, but huge oil incomes have allowed the establishment of expensive health systems which have quite spectacularly reduced mortality.

Other characteristics of micro states of demographic interest or with demographic implications

By world standards, micro state population densities are high. The exceptions are mostly mainland areas in Africa, the Middle East and South America. The high island densities can be partly explained by the simple fact that they are islands. Because of the use of littoral resources measurements of densities in terms of persons per square unit of land are inappropriate for comparisons of island and inland regions. In other areas, especially the Caribbean, sunshine, rain and volcanic soil combine to allow high food yields. Sometimes income comes disproportionately from

tourism or remittances from elsewhere. The old port and shipping facilities continue to supply some jobs and income.

Some of this population density is a relatively recent phenomenon. Over the last generation, growth rates have on average been higher in island than continental areas. Rates of natural increase above 3 per cent have been common (a level which means a doubling of total population every twenty-three years), while some states both in the Caribbean and the Pacific have made demographic history by recording 4 per cent (doubling every seventeen years). Only a small part of this is due to the age-sex structures brought about by the previous mortality patterns (e.g. the influenza epidemic of 1918).

The micro states of the Indian and Pacific Oceans are clearly more highly urbanized than the nearest regions of Africa, South Asia and Southeast Asia. However, the Caribbean islands do not appear to be more urbanized than either Middle America or tropical South America. Definition is difficult because on many islands there is no very clear division between the largest town and the rest of the island. Micro states by their very size are prevented from having metropolises. This also suggests that when measuring urbanization, metropolis size is not always the appropriate indicator. One of the problems in deciding the degree of urbanization in the micro states concerns the question of suburbanization. Whereas in the larger countries there is a tendency for the suburban fringes to be contained with the urban population, in the micro states there is frequently one line from the centre to the periphery and so the boundary between urban and rural is not clear. The figures for urban tend to be subjective since they depend on what each country considers to be an urban area. In the Pacific urban areas tend to be named zones, in many cases just the port town. In Australia and Canada, for example, urban is defined in terms of a population greater than one thousand. By this definition, many Pacific islands have settlements currently classified as rural villages which should be classified as towns.

Migration streams which are directed at metropolises have to leave the country. Some evidence for the contention that the apparently high level of urbanization is based on fact can be derived from statistics on the proportion of the workforce found in agriculture. Only in three micro states of the Pacific does it rise above 50 per cent, while

in the Indian Ocean it tends to be below 30 per cent. In the Atlantic islands it is generally 40 per cent or below, with the exception of the micro states on the African mainland where it rises above 80 per cent. Some of these figures may exclude fishing, but the chief explanation seems to be that their nodal positions in transport networks and defence systems, tourism, the high proportion of administrators, particularly in colonies, the remittance of money from outside and tourism all combine to produce a predominantly non-agricultural economy. This is important because taking the migrants into account in the workforce figures further decreases the agricultural component. Those who do have high levels of migration, permanent or circular, are linked into developed countries and not into other Third World countries. Thus they represent a hinterland of these countries in many ways.

The non-agricultural nature of the economy has been an important factor in raising per capita incomes above those generally found in the Third World. In some ways the relative level of comfort is even higher than per capita income figures suggest. One reason is again the inward flow of remittances. Another is that a higher proportion of income is often available for food, clothing and shelter than elsewhere, for the small size of the micro states prohibits many kinds of pleasurable but unnecessary consumption spending. There is often no television transmitter or even enough area or roads to make private motor transport very important. Similarly there is less likelihood of the spending of money on institutions and organizations which are common in larger countries. For example, few of the micro states have defence forces of any size.

Health and mortality

The fact that the economies are not particularly traditional and the populations frequently not indigenous combine with relatively high levels of urbanization and of income to reduce death rates. In many micro states this is facilitated by a fairly high level of health services relative to the population numbers. Where micro states are still colonies there has been an increasing tendency for the colonial powers to feel that the provision of health services should approach those found in the metropolitan countries. Most micro states have a chequered health and mortality history. Their isolation meant that infectious diseases usually could not be endemic and hence usually did

not exist. Hence death rates probably tended to be below those of continental land masses. The exception may have occurred when resulting population growth led to Malthusian population density. However, migration may have frequently prevented this (were the expeditions from Tikopia as consciously suicidal as Firth has suggested?). It is possible also that higher population densities meant more fishing.

However, this freedom from infectious disease carried with it considerable dangers, at least once European ships began to penetrate the areas. The reason is that the island populations had low levels of resistance to alien infectious diseases so introduced. In the nineteenth century most Pacific islands probably had declining populations and average death rates above those found in the continental land masses — the high death rates may well have been far apart, reaching occasional staggeringly high peaks with the introduction of some new disease.

As the twentieth century passed by, the ability to prevent or control the introduction of epidemic disease or the consequences of such an introduction became much greater. Indeed, once an armoury for fighting disease was developed, the fact of being an island became a distinct advantage, for it made it perfectly possible to stamp out various diseases completely. It also meant that there was a defined population which could be examined to discover whether diseases were still being harboured. By the mid-twentieth century there was probably hardly a micro island which did not have a population as high as it had ever been.

By 1960 most Pacific island crude death rates were under 10 per thousand and most infant mortality rates below 50 per thousand. This probably meant expectations of life at birth over 55 years. These were levels which still have not been reached by the Southeast Asian region taken as a whole.

The position in the Indian Ocean around 1960 is not nearly as well documented. Even in Mauritius and Reunion death rates were probably above 10 per thousand and expectations of life at birth not over 50. The Maldives and the Comoros Islands were probably no healthier than nearby India and Madagascar respectively. The micro states of the Arabian Peninsula probably exhibited death rates as high as anywhere in the world.

The position in the Caribbean was much as in the Pacific with expectations of life at birth frequently over 60 years. The micro states on the coast of tropical Africa tended to be unhealthy, even by African standards.

In spite of the low insular mortality of twenty years ago, the general picture has been one of continuing advance ever since. Most Pacific islands have an expectation of life at birth around 65 years, the level found in Western Europe after World War II and about thirteen years above that of the Southeast Asian countries. In the Indian Ocean a similar level was found, except in the Maldives and the Comoros which continued to exhibit levels close to those of Asia and Africa respectively, or some fifteen years less than the other micro states. The real achievements were in the Middle East where, over the previous two decades, the expectations of life at birth had increased by at least one year for every elapsed year — twice the experience encountered elsewhere in recent decades. The majority of these gains had been made during the 1970s and were a tribute to what massive expenditure on health services can achieve in concentrated populations. In the Caribbean, levels were generally in the 60-65 range, which were not very different from such nearby countries as Venezuela, Colombia or Mexico which were also prospering. The West African coastal enclaves appear to have reduced their mortality at the same rate as the rest of tropical Africa — a somewhat disappointing rate by world standards. One reason was the failure to conquer malaria in the region.

Change in marriage rates

A comparison has been made of marriage rates where information is available for two time points approximately ten years apart. Twenty-six of the micro states had information that was suitable for this analysis and the material that was used was the proportion of women never married in the 20-24 age group. One date was chosen as close to 1960 as possible and the other as close to 1970. Some time spans are only four years and others are as much as fourteen years, so caution should be exercised over the results. Fig. 2 shows the micro states to be divided by this indicator into three groups. The first is typified by a proportion never married increasing from 25 per cent to about 40 per cent over the period. The second group shows little change over the period and a never married category of some 50 per cent. The third group is more scattered as it includes all

those who have at least one figure over the 60 per cent mark.

Predominantly European populations (except Iceland) married earlier, as was the trend in all Western countries during the 1960s. In most other micro states (and all with indigenous populations except tiny Tokelau) females married later, as happened generally in the Third World during the 1960s. Where fertility fell among indigenous populations, and also in such states as Mauritius, the decline was assisted, but not wholly explained, by postponed female marriage.

Further comparison brings home the problems of the use of subtly different statistics. In some cases the high unmarried rate is due to the exclusion of *de facto* arrangements from the official statistics. This accounts for the predominance of the Caribbean states in the third group, the one with the highest rates of never married. In the first group come the islands of the Indian and Pacific Oceans as well as the coastal state of Brunei. The second is a mixture of the European and North Atlantic states and a small minority of the Pacific. The European ones, in this second group, show little change over the period which is to be expected from a group not at a time of great demographic change, as is happening in some of the micro states in the tropical regions, and at a time when the proportions never married in this age group were declining in most of the West.

Fertility

In the last twenty years there have been significant fertility declines in many parts of the Third World. A disproportionate number of these falls have been in islands and peninsulas — the latter subject to many of the external maritime influences described for islands. The micro states have featured markedly in this phenomenon.

Some of the fertility decline in the Pacific and Indian Ocean islands can be ascribed to delayed age at female marriage which has occurred throughout most of the Third World (one index is the changing proportion of females either 15-19 or 20-24 years of age who are married). This phenomenon is usually not associated with a desire to limit family size but with economic and social change that reduces the

pressure to marry daughters early. But in many micro states fertility declines have been so considerable that they are also proof of falling marital fertility, which is associated either with a desire to postpone pregnancies or to limit the ultimate size of the family.

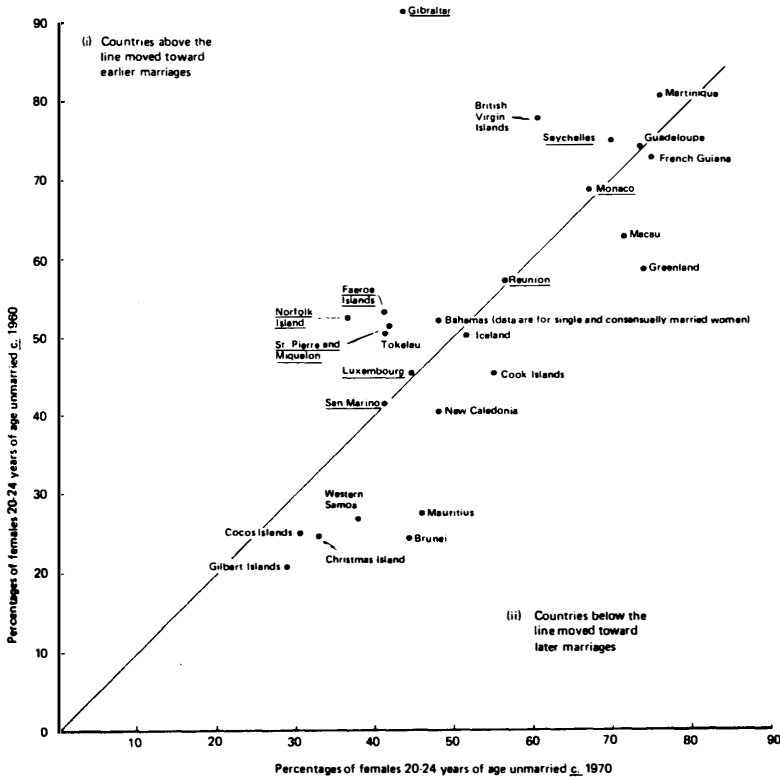


Fig. 2 Change in proportions of young women married, 1960-70.

Note: Microstates underlined have predominantly European populations.

By 1978 four micro states in the Pacific region had birth rates in the range 20-24, a level which Australia had exhibited for a quarter of a century following World War II. This contrasts with a crude birth rate of 37 in contemporary Southeast Asia (a region which has nevertheless had major falls in fertility). These were all relatively small populations, Nauru, Kiribati, Niue and Cook Islands, which had exhibited birth rates ranging from 32 to 50 only twenty

years earlier. However, substantial falls had been recorded since the 1960s in two larger populations and one smaller one. Fiji's birth rate had fallen from 40 to 29, New Caledonia's birth rate from a less certain earlier figure also to 29 and American Samoa's birth rate from 43 to 37. However, there are the usual problems in the Samoan figures that the effect of migration cannot be taken into account in the crude birth rate figures. Fiji was not as affected by migration which suggested that the decline there, at least, was real.

In contrast, three large populations had shown little movement. Western Samoa and the Solomon Islands had birth rates around 36-37 per thousand, while that of the New Hebrides was probably about 45 per thousand. Those micro states where fertility had not fallen tended to be poorer and to have higher death rates. Two of them had, for the Pacific, an unusually high proportion of the workforce in agriculture.

The Indian Ocean exhibited marked contrasts. Three oceanic states, Mauritius, Reunion and the Seychelles, and one coastal state, Brunei, had exhibited declines in the birth rate over eighteen years from the 40-49 range to around 28-30 (the kind of fall which had taken forty years in Australia, from the 1880s to the 1920s). In the Middle East, the birth rates of four micro states, Bahrain, Qatar, U.A.E. and Djibouti, had declined from levels which were probably around 50 to the range 42-44. Only in the Comoros and Maldives were there rates in 1978 still close to 50 and showing no signs of decline.

The contrast between the four states with the lowest birth rates and the two with the highest is clearly one of income and mortality. The Middle East states present an interesting picture of relative wealth and recent declines in the birth rate interacting with the strong family and high fertility cultural ethic of Islamic society in that region. It could be said that the Maldives and Comoros had maintained a birth rate of 50 per thousand because they were characterized by both poverty and a Middle Eastern version of the Moslem family.

In the Atlantic fertility had fallen in the Caribbean states by about 10 crude birth rate points from the range 31-45 to 20-35. By 1978 the birth rate in Bermuda was down

to 15, that in Montserrat to 17, in Barbados to 19, in Martinique to 20 and in the Netherlands Antilles also to 20. Further north, Greenland had achieved the world's most dramatic fertility decline with the Eskimo birth rate falling from 50 to 17 per thousand. In the islands off Africa there had also been substantial falls, in Cape Verde from 45 to 28, in Sao Tome and Principe from 45 to 40, and in St Helena to as low as 20. On the African mainland Gambia, Guinea-Bissau and Swaziland had stable birth rates in the 40s, while Belize in Middle America had a birth rate of 39. Birth rates in the low to mid-30s characterized Gabon and Equatorial Guinea but both could be attributed to the pathological conditions which affect large populations in this part of Africa.

In the Atlantic region the highest birth rates were in areas of indigenous population, largely practising agriculture and exhibiting continuing high death rates.

Declining fertility in the micro states appeared to be largely a product of their social and economic characteristics. Some had begun to exhibit birth rates of the kind found only in the industrial world or in the unusual conditions of the city states of Singapore and Hong Kong. Clearly the oceanic states were tending to behave in a way that had characterized Western countries rather than the Third World. The nature of their maritime society and economy was probably the basic cause but it may have been substantially assisted by fairly generous health facilities and also by a greater density of family planning facilities than is characteristic of the Third World. The extraordinary decline in Eskimo fertility apparently owed a good deal to an intensive Danish IUD campaign.

Migration

The oceanic micro states are in a very peculiar situation with regard to migration. All were originally settled by immigration and some employed periodic emigration to solve population crises. Nearly all now ban permanent immigration, and allow immigrant resident status only for needed specialists, on the grounds that space is limited and that population densities are great. Many have modified the potential problems raised by low mortality and consequent high levels of natural increase by permitting easy emigration. Indeed, many seem to take it for granted that real rural-urban migration streams must mean external

migration. On the whole such emigration streams have been found to be more possible than streams from other Third World states. One reason is that the small population base of the micro states means that these streams rarely have the potential to frighten immigrant countries. Another reason is that the small size of micro states usually means that they are either still colonies or have been colonies until recent times; in either case, they have the kind of links that have often made migration to the old colonial powers relatively easy. A third reason is that the degree of Westernization — Christianity, the ability to speak a European language and the level of education — has tended to make the metropolitan populations less suspicious of them. However, where the receiving nation has not been very large, problems have occurred. New Zealand, with a population of just over 3 million, has been the destination of many thousands of Pacific island migrants over the past two decades. The rapid growth of these flows in the early 1970s led to controls over migration being enforced and a worsening of race relations within New Zealand.

Another reason for migration was the demand for labour both within the micro states and from neighbouring states. In the Pacific region there was a history of Solomon Islanders and other Melanesians being brought to work in Queensland and also Maoris being brought to work on farms in the coastal regions of New South Wales. The dependency of these island states on the colonial and metropolitan powers was developed and maintained over a long period of time.

A summary note

There are two types of micro states: islands and mainland ones. Except for a few islands very close to the coast, most of the insular micro states are demographically very different from the rest of the Third World. Their death rates are lower, their birth rates lower, and the propensity of their populations to migrate to developed countries higher. It is argued here that these differences are based on other social and economic differences, which can be summarized by saying that such states are more Westernized. They were part of the European maritime system at a time when the West did not have the economic strength to penetrate continental areas to the same extent. On the whole they retained colonial links longer.

That micro states represent a separate category can be seen in virtually all of the things that have been discussed here. Micro states represent a different pattern of evolution. Just as there are different courses of biological evolution, all but a few people working on cultural evolution would stress the variety of forms of cultural evolution. So here we have a different sort of evolution to those of the Western world or the larger Third World states. In as much as linear measures are of any use, micro states seem to lie between the two other types discussed here. They are more developed, have better data (see below), have demographic parameters which suggest they are more advanced than the Third World countries. Yet they lack the economies of scale that seem necessary for them to become established industrial powers. On the other side they will continue, whilst a political system is maintained which ensures one state one vote, to have considerable influence and they will be satisfied by a smaller total outlay than would a larger country.

A comment on Table 1

Many of the figures given in the table that follows are to the nearest hundred or thousand. That these are approximations is fairly obvious but they should be treated as no more than estimates. Even other figures which appear to be more accurate by the recording of a non-zero unit should be treated with caution. In many cases contradictory figures exist. We have recorded them as they are recorded elsewhere rather than rounding or truncating the values to ranges we feel would be more appropriate. It is also important to stress that the effect of rounding populations of this size to the nearest thousand can mean an error of up to half in populations recorded as having a size of a thousand, whereas the error involved when the actual population is a million is no more than one-half of one-tenth of one per cent. We strongly advise against statistical analyses being carried out on the figures presented here of any but the most simple descriptive type.

A composite code was used to assess the reliability of demographic information on states and analysis of this showed that once again the data for micro states show much less variation in quality than those for the full range of states. The quality of material was, by and large, worse than that of the European countries but better on average than that of the rest of the Third World. Such a relationship

seems also to hold within continental regions. The explanation would seem to lie in the size once again. Many of the smaller states can have a census or registration system mounted for them by an outside agency at little cost, but the expertise to make this an ongoing collection of data is unavailable. Thus places like Fiji, Tonga and Western Samoa have better information than Papua New Guinea where the cost of conducting a full census would be extremely high. The cost of conducting a census in a micro state is relatively small and the transfer of that amount of money to Papua New Guinea would make little difference to the size of sample that could be collected there.

It must also be noted once more that the particular history of many micro states has meant they have been left with a more developed bureaucracy into which such censuses can be fitted. A final point that should be raised is whether or not the essential littoral nature of micro states has facilitated the collection of data. There does not seem to be any clear answer to this.

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Chapter 7

Population trends in the island states of the Pacific and Indian Oceans

David Lucas

In Norma McArthur's significant article on 'Population and social change: prospect for Polynesia' (McArthur 1961) six Pacific countries which had undertaken censuses in 1956 were shown to have an aggregate enumerated population of over 600,000 (see Table 1). Because of incomplete registration, birth and death rates could only be roughly estimated, but McArthur suggested that in the absence of migration the rates of increase for each country would exceed 3 per cent per annum over the period 1956-71 and that the aggregate population would exceed one million by 1971.

Before continuing, it is important to remember the difference between a rate of *natural increase* (the birth rate minus the death rate, expressed as a percentage), and the *growth rate* which takes both natural increase and net migration into account. McArthur stressed that her projections were not predictions, and recent estimates by the US Bureau of the Census (1978), based on enumerations in the late 1960s and early 1970s, give an aggregate population of 939 thousand, a shortfall of 8 per cent of the projected total in Table 1. This is hardly surprising since the projections assume constant fertility and mortality and no migration. Possible explanations for the shortfalls in Table 1 are emigration and falling fertility, and McArthur identified two countries, American Samoa and the Cook Islands, which might check population growth by emigration. As Table 1 shows, these countries experience the greatest shortfalls, of 15 per cent and 22 per cent respectively. For Fiji McArthur anticipated the effect on fertility of a rising age at marriage and some spread of birth control methods. In the following sections these two components, emigration and fertility, will receive the greatest attention.

Table 1

The populations of selected Pacific territories in 1956 and 1971

Country	(a) 1956 census population ('000)	(b) McArthur's projection for 1971 ('000)	(c) 1971 population estimates ('000)	(d) Difference (b)-(c) ('000)	Shortfall $\frac{(d)}{(b)} \times 100$ (%)
American Samoa	20	33	28	5	15
Cook Islands	17	27	21	6	22
Fiji	346	584	538	46	8
French Polynesia	75	122	120	2	2
Samoa	97	158	145	13	8
Tonga	57	92	87	5	5
Total	612	1,016	939	77	8

Note: In column (b) the projection assumes continuation of mortality and fertility as recorded in 1956 and no migration.

Sources: (a) and (b) McArthur (1961: Table 1); (c) US Bureau of the Census (1978).

Demographic data

Trends in data collection are mentioned here since any discussion of population trends depends on the quality and comparability of data. Groenewegen (1979a) has commented that the frequency of census-taking in the twenty countries of the South Pacific Commission region has been 'fairly high', which, to researchers familiar with African or Asian data, must seem an unduly modest claim. For example ten SPC countries held censuses in 1976-77 even though most had previously held censuses five, six or seven years earlier.

A landmark in the demography of the Pacific was McArthur's *Island Populations of the Pacific* which covers the period up to and including 1956. Unfortunately no comparable work covering the next two decades is available, although forthcoming ESCAP Country Monographs should provide a comprehensive demographic overview for some individual countries. In her analysis McArthur (1967:xvi) avoids the use of demographic techniques on the grounds that 'helpful though these are for some purposes, they do not improve the quality of the data'. Since then a substantial array of new techniques have been developed so that plausible estimates of fertility and mortality can be made from defective or limited data (see, for example Brass 1975). A number of retrospective questions related to these techniques have been included in some censuses in the Pacific in 1976-77 yet the French territories (French Polynesia, New Caledonia, and Wallis and Futuna) omitted fertility and mortality questions because their vital registration was considered to be of sufficient accuracy (Groenewegen 1979b).

The *Demographic Year Book 1977* classifies ten of the eighteen countries in Table 2 as having 'civil registers which are incomplete or of unknown completeness'. As a result the United Nations reports that Tonga's Crude Birth Rate is an unlikely 13 per thousand, (United Nations 1978: 155) compared with the more plausible 34 per thousand shown in Table 2. Tonga also provides an example of a lack of comparability between censuses: the 1976 census was on a *de jure* basis while the 1966 was *de facto*.

Two particular difficulties in examining growth rates of the smaller islands derive from the small base populations and the high propensity of some islanders to migrate. Thus the population growth rates given by the US Bureau of the Census fluctuate widely from year to year. For example in

Table 2
Demographic indicators for selected Pacific and Indian Ocean countries, 1976

Country	Estimated population ('000)	Crude Birth Rate (per '000)	Crude Death Rate (per '000)	Rate of natural increase (%)	Annual growth rate (%)	Net migration (%)
American Samoa	30	37	4	3.3	1.7	-1.6
Cook Islands	18	25	6	1.9	1.7	-0.2
Fiji	590	29	4	2.5	1.6	-0.9
French Polynesia	135	33	7	2.6	2.4	-0.2
Guam	96	33	5	2.8	-0.4	-3.2
Kiribati (includes Tuvalu)	60	33	6	2.7	1.7	-1.0
Nauru	7	22	5	1.7	1.7	-nil
New Caledonia	135	31	7	2.4	1.7	-0.7
New Hebrides	97	45	19	2.6	2.2	-0.4
Niue	4	24	6	1.8	n.a.	n.a.
Pacific Islands	126	33	4	2.9	3.1	+0.2
Samoa	151	37	7	3.0	1.0	-2.0
Solomon Islands	200	41	10	3.1	3.1	nil
Tonga	90	34	11	2.3	0.3	-2.0
Wallis and Futuna	9	40	10	3.0	5.5	+2.5
Maldives	135	50	23	2.7	2.4	-0.3
Mauritius	895	26	8	1.8	1.3	-0.5
Seychelles	61	27	8	1.9	2.1	-0.2

Notes: The net migration is estimated subtracting the annual growth rate from the rate of natural increase. Natural increase is obtained by subtracting the Crude Death Rate from the Crude Birth Rate and converting the result to a percentage by dividing by 10. n.a. indicates not available.

Sources: US Bureau of the Census (1978) World Population Statistics in Brief 1977; for Niue, United Nations (1977: Tables 3 and 4). The Niue rates are for 1975.

the 1970s the growth rates for the Cook Islands, Guam, and Wallis and Futuna were negative in some years and positive in others.

One data source which has not yet been discussed is the sample survey, the information from which can sometimes either provide a substitute for census or vital statistics, or can identify more clearly the causes of population changes. For instance the 1974 Fiji Fertility Survey obtained information from 4928 ever married women about their birth and marriage histories, contraception, and background characteristics (World Fertility Survey 1977:1). For decades Mauritius has had complete registration of births and deaths and accurate censuses. However, sample surveys would be of use to determine the effects of marriage patterns, family planning, and other variables on population dynamics of the island (African Population Newsletter 1978:5-7).

Fertility

In the following sections, the various components of population change - fertility, mortality and migration - will be discussed in that order. In view of the fairly high Crude Birth Rates and the relatively low Crude Death Rates, in Table 2 natural increase is generally high. Yet since mortality is already at quite low levels, it must be assumed that fertility levels will have an increasing influence on rates of natural increase.

Is there any evidence that fertility is falling, and if so how rapidly? From Table 2 it can be seen that fertility, as measured by the Crude Birth Rate, is certainly high (above 40) in the New Hebrides, the Solomon Islands, Wallis and Futuna and the Maldives. The only countries with rates between 20 and 30 are the Cook Islands, Fiji, Nauru, Niue, Mauritius and the Seychelles.

According to Brackett and Ravenholt (1976: Table 4), between 1965 and 1975 French Polynesia's Crude Birth Rate fell from 46 to 34, while Samoa's remained steady at around 37. Of sixteen selected countries with 'vigorous family planning programs' Brackett and Ravenholt (1976:216) note that the sharpest declines in fertility were registered in Singapore, Mauritius, Colombia, Costa Rica, Taiwan, Chile, Fiji and Hong Kong. They continue that 'These countries with vigorous family planning programs ... may be viewed from another perspective. Early programs tended to be

started in small, often island or isthmus countries ...'

To discuss why vigorous family planning programs should flourish in some island states and not in others is beyond the scope of this paper. Instead the well-documented progress of Mauritius and Fiji will be considered in more detail. Brackett and Ravenholt (1976: Table 8) observe in the period 1960-73 that the Total Fertility Rate has declined from 5.6 to 3.5 (i.e. by 38 per cent) in Fiji and from 5.9 to 2.8 (i.e. by 53 per cent) in Mauritius.

Fiji in the last twenty years has experienced rapidly rising levels of education, and an increasing age of marriage for Indians. The family planning program began to have a major impact in the early 1960s, and in the 1974 Fiji Fertility Survey almost 74 per cent of Indian women and 59 per cent of Fijians had tried a contraceptive method. In addition, one in five of ever married Indian women had been voluntarily sterilized (World Fertility Survey 1977). Thus Fijian fertility now exceeds Indian, even though Fijians abstain for longer periods after a birth and are more likely to be infecund (that is, lacking the ability to produce live born children). The situation described by McArthur (1967:58 and 67) has not come to pass, for in 1966 she wrote: 'With average completed Fijian families at least one child smaller than the Indian families ... within a few years the relationship that existed between the numbers of Fijians and Indians in 1921 may be completely reversed and there may be 140 Indians to 100 Fijians in Fiji'. Mauritius has also been distinguished by a rapid decline in population. Population growth exceeded 3.1 per cent in the period 1952-62 but fell to 1.3 per cent in the period 1972-76. This fertility decline was attributed to rising age at marriage and to the widespread practice of family planning (African Population Newsletter 1978).

In 1955 a committee appointed by the Governor to investigate the problems of economic development in Mauritius expressed concern about the country's population problem and urged the government to provide family planning services and encourage emigration. Although half of this committee were Catholics, Brookfield (1957:112) still felt 'that the strength of the Catholic Church has so far been the leading obstacle to open discussion of birth control in Mauritius. It may well be that the assumption of sustained decline in fertility is not valid; many contrary arguments are admissible'. In fact when the first regular family planning clinic was opened

in 1963, Action Familiale, a Catholic backed organization, was established advocating the rhythm method. Apart from the development of the family planning program, the stagnation of the economy in the 1960s may also have stimulated interest in family limitation (Dommen and Dommen 1977).

The economies of Fiji and Mauritius both depend heavily on sugar, and for this reason Indian indentured labourers arrived in the nineteenth century. In 1962 Indians formed two-thirds of the population of Mauritius (Xenos 1970). The behaviour of Indian communities in countries with an important estate sector is of some interest: for example in Sri Lanka the tea and rubber estate women, who were mostly Indian Tamils, had lower fertility than urban and other rural women (World Fertility Survey 1978:4).

The information on other countries in the Pacific and Indian Oceans is more scattered. According to ESCAP's *Population Headliners* (May 1979) 52 per cent of women of child-bearing age in Tonga are family planning acceptors. Bakker (1977:122) believes that the Crude Birth Rate was at least 40 until 1939, and increased during the period 1939-66. After 1966, and notably after 1971, a fertility decline began which was associated with the activities of the Tongan Family Planning Association and the Ministry of Health. Work by 'Saane Tukia on the 1976 census tabulations should provide more evidence of this decline.

Although contraceptive use is reported to be widespread in Kiribati, the ideal family size is still 4 to 6 children for subsistence farmers. In 1972, four years after the commencement of the family planning survey, over one-third of women aged 15-44 were using reliable contraceptives (Pitchford 1977).

The establishment of 'vigorous' family planning programs is obviously influenced not only by governmental attitudes but also by logistical factors. In December 1977 *Population Headliners* reported on the Maldives (which includes about 200 inhabited islands) that 'Although the Government does not have an explicit population policy, contraceptives are provided to acceptors, mostly on the capital island of Male'. Similarly the Solomon Islands' population is widely scattered and the government is not committed to any policy of reducing fertility. In July 1978, *Population Headliners* noted that since doctors could not cope with the demand for family planning in rural areas paramedicals would be trained in IUD insertion and pill prescription.

Dudley (1977), in a rather swashbuckling way, has linked the rising growth rate in the Solomons to 'permissive westernization' leading to the decline of traditional methods of birth control such as postpartum abstinence and abortion. However, he neglects to emphasize the effects of falling mortality and the 'population momentum' which develops as more women survive to become mothers.

Connell (1977:25) has written of the Siwai, who live in Papua New Guinea but share social characteristics with Solomon Islanders, that 'every constraint to increased fertility has declined during the present century'. Thus in the Pacific, as in Africa, there is the possibility that the removal of traditional methods of birth spacing may lead to a rise in fertility unless replaced by modern contraceptive methods.

Carroll (1975) has estimated that the population of Nukuoro Atoll, in the Trust Territory of the Pacific Islands, was stationary between 1878 and 1912, but thereafter rising fertility stimulated population growth. Constraints to fertility in the nineteenth century were infanticide, traditional abortion, and venereal disease, with these last two rendering some women permanently sterile. Postpartum abstinence was not practised, but occasional abstinence was encouraged before 'important work' because sexual intercourse was believed to be 'debilitating'. After World War II gonorrhoea was eradicated and sterility became less prevalent (Carroll 1975:361-2).

Jelliffe and Jelliffe (1975:558) believe that on a world-wide basis breastfeeding has given more protection against pregnancy than modern contraception. In traditional societies prolonged breastfeeding is of importance in several ways in spacing births. Breastfeeding itself provides some protection against pregnancy: thus shorter periods of breastfeeding could lead to higher fertility (see for example Van Ginneken 1978). Secondly, breastfeeding may influence the length of postpartum sexual abstinence. Since the protection provided by breastfeeding diminishes after the early months this may be more crucial than the period of prolonged breastfeeding itself.

The modernization process throughout the world is associated with a decline in breastfeeding which tends to be practised for shorter periods by younger, urban and educated women (Van Ginneken 1978:184). Among the Fijian community

the median length of breastfeeding in 1974 was 10.4 months, and although shorter lactation was observed among educated and urban women, 'the norms of the bulk of Fijian women appear to have remained intact'. For Indian women in Fiji the median length of breastfeeding and postpartum abstinence were 5.2 and 3.0 months respectively (World Fertility Survey 1977:4). However, their high rate of contraceptive usage would compensate for this. Amongst the Siwai breastfeeding is still universal for at least a year, but may have been more prolonged in the past (Connell 1977:21). In some parts of the Trust Territory of the Pacific Islands weaning takes place at one year, but this custom was apparently introduced by the missionaries in the nineteenth century (Carroll 1975: 358). From these fragments, it might be assumed that prolonged breastfeeding in many parts of the Pacific has only a minor constraining effect on fertility.

Marriage is the final influence on fertility to be discussed in this section. Work by Smith (1978) indicates that the Pacific pattern of marriage differs considerably from the South Asian norm of early marriage. As mentioned above, the Indian populations in Fiji and Mauritius conformed to the South Asian tradition, but in both countries the age of marriage has now risen.

In addition to later marriage, the Pacific also experiences a relatively high degree of non-marriage. Of course, the usual problems of comparability exist, and whereas Fiji, the Solomon Islands, Tonga and Samoa, have included *de facto* marriages in the 'married' categories, some other countries have not done so (Groenewegen 1979b). This probably explains why, according to the United Nations (1977:482), over 30 per cent of males and females aged 45-49 in the Seychelles are reported as never married. However, the United Nations (1977: 489) do provide evidence of a revolutionary change in Samoa where the percentage of males never married in the age group 20-24 increased from 60 per cent in 1966 to 75 per cent in 1971. For females the corresponding increase was from 32 per cent to 38 per cent, and a similar trend was observed in New Caledonia between 1969 and 1976. Since higher ages at marriage are associated with increasing educational opportunities, these trends may continue.

Murray Chapman has drawn my attention to research indicating that an infectious disease agent, the hepatitis B virus, commonly occurs in the blood of Pacific islanders. In some countries 20 per cent of the population are carriers of

Table 3

Sex ratios for selected Pacific and
Indian Ocean countries

Country	Year	Sex ratios (males per 100 females)	
		Total population	Persons aged 15-49
American Samoa	1970	102	101
Cook Islands	1976	105	98
Fiji	1976	102	100
French Polynesia	1971	106	105
Guam	1970	126	144
Kiribati and Tuvalu	1973	96	92
Nauru	1977	119	n.a.
New Caledonia	1976	108	112
New Hebrides	1969	113	108
Niue	1976	101	97
Pacific Islands	1973	107	107
Samoa	1971	108	107
Solomon Islands	1973	112	109
Tokelau	1972	86	70
Tonga	1976	105	100
Wallis and Futuna	1969	96	83
Maldives	1967	114	115
Mauritius	1976	100	100
Seychelles	1977	101	109

Sources: United Nations (1978:190-3, 208-9, 218-23); for Nauru, Republic of Nauru, *Preliminary Report Census 1977*.

this virus, compared with only 0.1 per cent in the USA. (Hesser *et al.* 1976:74). In Melanesian and some other populations the sex ratio (males per 100 females) was increased when either parent, but particularly the father, was a carrier (Hesser *et al.* 1976; Drew *et al.* 1978). The resulting surplus of males (see Table 3) may stimulate marriage migration or increase the proportions never married, and slightly curtail fertility.

Mortality

Crude Death Rates are generally at low levels in the selected countries, with the possible exceptions of the New Hebrides and the Maldives (see Table 2). Therefore only modest declines in mortality can be contemplated in future, as shown in Table 4.

Table 4

Estimated Crude Death Rates for selected periods

	1950-55	1970-75	1990-95
Melanesia (excluding Papua New Guinea)	23	14	8
Micronesia	17	9	6
Polynesia	16	7	6
Mauritius	15	8	7

Source: United Nations (1979: vol.1, Tables 73 and 15).

After World War II falling death rates made a significant contribution towards the accelerating growth rates and the 'population momentum' described above, but now death rates are tending to level off. Melanesia had the highest rate in 1970-75 and its Infant Mortality Rate may be as high as 150, compared with only 20 for Micronesia and Polynesia (United Nations 1979:49). Yet the possibility of a resurgence of malaria (as in Sri Lanka) could mean that the anticipated fall by 1990-95 is not achieved.

Similarly in some urbanized areas of the Pacific the adoption of Western life styles may adversely affect the levels of morbidity and mortality in the future. In Nauru 40 per cent of adults aged 20 and over had diabetes and

Table 5

Estimated growth rates for selected Pacific and
Indian Ocean countries

Country	US Bureau of the Census 1970-77	United Nations 1970-77	South Pacific Commission 1969-78	1976-78
American Samoa	2.2	2.6	1.9	2.2
Cook Islands	-1.6	3.2	-0.7	0.7
Fiji	2.1	2.1	2.1	2.2
French Polynesia	3.5	3.3	3.3	2.7
Guam	1.7	2.8	3.6	4.0
Kiribati (includes Tuvalu)	1.6	3.1 ^a	1.7	1.9
Nauru	1.6	1.9	nil	nil
New Caledonia	3.4	2.8	3.4	3.5
New Hebrides	2.9	2.7	2.4	2.1
Niue	n.a.	1.9	-3.5	-2.6
Pacific Islands	3.8	3.9	3.4	3.1
Samoa	1.2	1.0	1.2	0.4
Solomon Islands	3.7	2.8	3.5	3.5
Tonga	0.7	0.6	1.4	1.1
Wallis and Futuna	1.9	nil	4.4	4.4
Maldives	2.9	3.8	n.a.	n.a.
Mauritius	1.4	1.3	n.a.	n.a.
Seychelles	2.5	2.6	n.a.	n.a.

^aKiribati (Gilbert Islands only).

Notes: (1) n.a. indicates not available.

(2) To calculate r (the rate of growth) the formula

$$r = \left(\sqrt[t]{\frac{p_{1977}}{p_{1970}}} - 1 \right) \times 100$$

has been used for the 1970-77 rates.

Sources: US Bureau of the Census (1978); United Nations (1978: Table 4); South Pacific Commission (1979: Table 2).

Zimmet (1979:144) believes that 'obesity, a high calorific Western diet and reduced physical activity may be the major precipitating factors'. In addition over 60 per cent of adults had hyperuricaemia and 7 per cent of men had clinical gout (Zimmet *et al.* 1978:1237). In Funafuti in Tuvalu, the prevalence of diabetes was 10 per cent for those aged 20 and above, and may increase (Zimmet 1977:1101 and 1107). Coronary artery disease is not yet a major problem in the Pacific, but with increasing westernization it may become a major cause of morbidity and mortality in Polynesians and Micronesians (Zimmet 1979:144).

International migration

The net migration column in Table 2 indicates that in the mid 1970s emigration was an important brake on population growth in American Samoa, Guam, Samoa and Tonga. Since the inhabitants of American Samoa and Guam are respectively nationals and citizens of the USA, they have free entry to Hawaii and the mainland of the United States. The population of Guam is also affected by the movements of military personnel, and this may explain the high sex ratios in Table 3.

Upon Independence, in 1962, Samoa was given a quota of 1500 migrants a year by New Zealand, but by the early 1970s net migration had increased to about 4000 a year (de Bres 1977). Tonga had no such arrangement for permanent migration but in 1966 the New Zealand Government introduced a sponsorship scheme for the temporary entry of Tongans. Between 1964 and 1974 about 7500 Tongans entered New Zealand on temporary work permits; of these 6500 arrived after April 1970 (de Bres and Campbell 1975). After 1975, with New Zealand experiencing high unemployment, its government took a much sterner attitude towards Samoan and Tongan overstayers who had failed to return home when their temporary work or visitors permits expired (see de Bres and Campbell 1976:26-8).

Table 5 reinforces the notion that growth rates for some countries fluctuate annually and are difficult to estimate, but it does identify the Cook Islands and Niue as areas influenced by emigration during the last decade. Persons born in the Cook Islands and Niue, and Tokelau islanders are citizens of New Zealand and can enter that country at any time. According to de Bres (1977:22), 'Migration began to level off in the early 1970s but not until there were more Cook Islanders and Niueans than were left in their home countries. Serious depletion of manpower

resulted and the respective governments have since encouraged migrants to return.'

The various estimates for Fiji in Table 5 are very constant at around 2.1 per cent, but reference to Table 2 implies that emigration may still have had a modest effect on containing growth. Arrivals from Fiji intending permanent residence in New Zealand rose from around 500 in 1967-68 to 1200 in 1973-74 (New Zealand Department of Statistics 1975: Table 2.12), and between 1964 and 1974 over 18,000 Fijians entered on temporary work permits (de Bres and Campbell 1975: 447). In Australia the number of persons whose birthplace was Fiji rose from about 4000 in 1971 to 6000 in 1976 and 7500 in 1978 (Patricia Pyne, pers. com.).

The movements described above all refer to emigration to industrialized countries, notably New Zealand, the USA and Australia. In addition there are movements within Micronesia from Kiribati and Tuvalu to phosphate-rich Nauru. In 1977 the Kiribatians and Tuvaluans comprised 18 per cent and 8 per cent of the population respectively (Republic of Nauru 1977: Table 1).

The migration stream from Wallis and Futuna to New Caledonia has been documented in this volume by Roux who also indicates that in 1976 and 1977 the flow was reversed. Because of the recent economic crisis in New Caledonia migrants returned home to take back lands that had been cultivated in the meantime by parents or relatives.

In Table 3, the sex ratios for the total population tends to be higher than those calculated for the population aged 15-49 years, which suggests that adult males tend to migrate more than adult females. However, only in the Cook Islands, Kiribati and Tuvalu, Niue, Tokelau, and Wallis and Futuna do females outnumber males in the 15-49 age group. The demographic consequences of emigration from Tokelau have been documented by Stanhope and Prior (1977). Since females outnumber males, some females have to migrate to New Zealand to marry, and because of later marriage, fertility was lower than for other Polynesian populations.

Internal migration

Increasing urbanization is a feature of the Third World, yet most Pacific countries are still predominantly rural, and in the New Hebrides, the Solomon Islands, and

Wallis and Futuna over 85 per cent of the population live in rural areas. At the other extreme, Guam is only 9 per cent rural (Sevele 1979: Table 1). Although some countries have experienced rapid urban growth in the 1960s, in Samoa and the Solomon Islands the rate of urban growth has now declined (Sevele 1979:3).

In contrast, according to a recent newspaper report, Male, the Maldivan capital, 'has done so well as an entrepot centre in the mid-Indian Ocean that it is literally bursting at the seams' and its population has doubled to 30,000 in the past four years (Murphy 1979).

In the New Hebrides, circular migration now involves longer periods outside the village, but only a few migrants regard the town as their permanent home. However, attitudes are changing, especially for young New Hebrideans receiving their educations in towns (Bedford 1973:226-7). In Tonga, internal migration at a high rate is directed towards the capital, Nuku'alofa, and neighbouring areas and 'reflects movement in search of employment, education, land for cash cropping, and the attractions of urban life and is a result of the growing regional inequalities in development and opportunities within Tonga' (Maude 1973:169).

In discussing micro states on a world basis Caldwell *et al.* have commented elsewhere in this book that 'migration streams which are directed at metropolises have to leave the country', and this raises the problem of the relationship between international and internal migration. Bedford (1973: 204) has described New Hebridean migration to New Caledonia as circular and comparable with internal movements to Vila.

In Samoa, a movement from the village to Apia may be a step in migration to New Zealand (Salale 1976:7). Do opportunities for internal circular migration or wage employment in urban centres diminish the propensity to international migration?

Population density and land use

Caldwell *et al.* have noted that, because of the littoral resources, densities per square unit of land are inappropriate for comparisons of island and inland regions. The South Pacific Commission (1979: Table 2) publishes the land area, sea area, and population for its region, but sea area would not be a good indicator of marine resources. In

Tonga some shores are unproductive (in terms of marine resources) and these support low population densities (Maude 1973:168-9). Marine resources may change: shallow waters near the capital Nuku'alofa were teeming with marine life in the 1950s, but this is no longer the case (Hau'ofa 1977:4).

Of course land area may not be a good indicator of resources either, but in the paper by Shand in this volume Table 1 shows the Melanesian countries as apparently 'land rich' compared with the others. New Caledonia, the New Hebrides, and the Solomons all have densities of around 7 persons per square kilometre. Conversely in Mauritius, which supports more than 400 persons per square kilometre, 'there is virtually no land available for the unemployed to revert to subsistence agriculture' in times of economic stagnation (Dommen and Dommen 1977:7).

For Samoa, Jupp (1961:405), assessing 1959 land use data, considered that there was no serious pressure of population against cultivable land, and that Western Samoa could support a population of around 200,000. Samoa currently has a density of around 52 which compares favourably with Tonga's 129 persons per square kilometre. Under the constitution of 1875 every Tongan male is entitled to an allotment of $8\frac{1}{4}$ acres of rural land and a town section. The maximum number of allotments, even if unusable land was taken into account, was around 20,000 and the number of eligible males is already considerably in excess of this (de Bres and Campbell n.d. 13-14).

Fiji's density is now a modest 32, but Ward (1965:11 and 16) has written how only a small proportion of the total area of Fiji was used, and that this land is concentrated in the coastal areas. He continues that 'Too many people, whose numbers are increasing too rapidly, are seeking to find a livelihood in rural districts from too small an area of agricultural land'.

Population, development, and resources

The possible constraining effects of rapid population growth on economic development are well known and include a high dependency ratio, an expanding potential labour force, and the diversion of investment into social overhead capital projects such as schools (see Jones 1969). These problems are exemplified in the Kingdom of Tonga Development Plan 1970-1975, paragraph 1.18 of which reads:

The rapid increase in the population and the extraordinarily high proportion of young people in the total population is already leading to rapid rises in the school population, to increasing unemployment and to a serious shortage of tax allotments. For these reasons the Government has placed considerable emphasis in the 1970-75 Development Plan upon slowing down the rate of population increase by the implementation of an Effective Family Planning programme.

Subsequent paragraphs refer to the lack of professional expertise in many fields, a reminder that improving the quality of the labour force may be more important than increasing its size.

According to Salale (1978:81-2), 'The shortage of quality manpower is a phenomenon common to all South Pacific islands ...', but at the same time limited job vacancies have resulted in stiff competition for jobs by school leavers in Samoa. However, his estimate of the Samoan unemployment rates in 1971 are 0.8 per cent for males and 0.3 per cent for females (Salale 1978:57). The rate for the Seychelles in the same year was 11 per cent (Government of the Seychelles 1975:1).

Problems relating to the three basic resources have been well summarized by Bakker (1977). Land, food, water and energy shortages are becoming more apparent, the native vegetation is disappearing, and islanders are becoming more dependent on imported foods. Some islands are already experiencing water shortages and all are deficient in energy resources.

Population policies

The United Nations (1979, vol.II, Tables 51 and 55) indicates that the Maldives felt that its rate of natural increase was neither too high nor too low, while Nauru wished to increase its birth rate. The governments of Fiji, Mauritius, the Seychelles, Samoa and Tonga felt that their rates of natural increase were too high and that full intervention to reduce these rates was necessary.

In addition to these five countries ESCAP (1978) has indicated that in 1978 the following four governments had a stated policy on family planning and a family planning program: the Cook Islands, Kiribati, the Solomon Islands and

Tuvalu. Of this total of nine countries, at least seven had received financial support for family planning, maternal child health, or family health from the United Nations Fund for Population Activities. In addition, on the basis of five criteria (population growth, fertility, infant mortality, population density on arable land, and per capita national income) the Maldives, Samoa, Tonga and the Solomon Islands were designated 'priority countries' for UNFPA population assistance.

Although an article by Palmore and Park (1973) is entitled 'Population policy and family programs in Asia and the Pacific', Fiji is the only Pacific island mentioned. This illustrates the general problem of gathering information on this topic: information is only readily available on Fiji, and on Mauritius. According to the UNFPA, the New Hebrides received grants for family planning services in 1972 and 1975. In some countries in Francophone Africa the French 'law of 1920', which made abortion illegal and restricted the sales of contraceptives, is still in force. As far as it could be ascertained, this is also true for New Caledonia, and perhaps for French Polynesia also.

Prospects and theories

The emphasis above has been on fertility regulation as the major means of restricting population growth. One demographic approximation is that if the growth rate is divided into seventy this gives the number of years a population takes to double itself, and so, even with the help of emigration, many countries in Table 2 will almost double their populations within a generation.

Even in countries with effective family planning programs and declining birth rates, some temporary setbacks have occurred. In Mauritius because of the 'population momentum' generated by the large cohorts born in the 1950s entering the childbearing ages, over 3000 more births occurred in 1974 than in 1973 (Bhageerutty 1977:70). In spite of this, the government's target of a Crude Birth Rate of 23 in the period 1982-87 was expected to be attained. In the Seychelles the Crude Birth Rate rose from 30 in 1973 to 33 in 1974 because of increased fertility in the 15-19 age group. Yet even on the assumption of declining fertility the 'population momentum' would elevate natural increase to 2.7 per cent from 1983 (Government of the Seychelles 1975:1).

Although the famous theory of demographic transition has correctly predicted that mortality would fall before fertility, it was less helpful in predicting how and when fertility would fall in developing countries. In his modification of transition theory Caldwell has argued that since in traditional societies parents gained economic advantages from their children, a fertility decline could only occur when this flow of wealth (from children to parents) was reversed. Such a reversal of wealth flows could be associated with a change from extended to nuclear families: the sort of change which according to Hau'ofa (1977:21) is occurring in Tonga. More recently Caldwell (1979) has stressed the importance of mass education as the main determinant of a sustained fertility decline, but so far no immediate confirmation of this hypothesis has been provided.

Another view is that of Freedman (cited in *International Family Perspectives and Digest* 1978:86-7) who believes that communicating the ideas of fertility regulation and making contraception readily available, rather than high levels of 'Western-type modernization', are essential for declining fertility. Both Freedman and Caldwell allude to the status of women, yet once again the literature relating to the islands of the Indian and Pacific Oceans is scattered, and no general overview seems to be available. However, information on educational levels, the availability of contraception, and to a lesser extent the decline of the extended family might be relatively easy to gather, and one could then predict where sustained fertility declines are most likely to occur.

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Chapter 8

Migration and change in Wallisian society

J.C. Roux

After twenty years of very rapid migration, 11,000 Wallisians and Futunians form a solid minority group in the Territory of New Caledonia. This group represents 55 per cent of the total population of Wallis and Futuna. The islands themselves (210 sq. km) and the remaining 9,192 inhabitants (1976 census) are increasingly feeling the effects of this situation.¹

In the history of this archipelago, three periods can be distinguished:

- . Pre-European traditional society where settlement dates back as far as 2000 BC. Origins are not well defined, but population came mainly from Fiji, Samoa, Tonga and probably the Marshall Islands.
- . Contacts with Europeans began in 1616, following visits to Futunians by Lemaire and Shouten; Wallisians encountered Europeans for the first time in the eighteenth century. From 1825, with the arrival of whalers, Futunians were employed on vessels. There was exploitation of resources including copra and seaslugs,
- . Immigration to New Caledonia and New Hebrides. After a period of isolation from 1890 until World War II, there was some migration to New Caledonia in 1947-48 and to the New Hebrides in the 1950s. With the expansion of the mining economy from 1960 to 1972, there was a rapid increase in immigration from Wallis to New Caledonia.

¹Census of New Caledonia, 1976, Institut National Statistique et Etudes Economiques, Paris - Noumea.

From 1842 to 1933, the influence of the Marist Mission was crucial (Poncet 1972) and exceeded the authority of the French administration which was small and without the means for generating development. With the French Overseas Territory statutes of 1959, the impact of external migration and the 'Wallisianization' of the clergy, one can perceive a growing crisis of conscience.

Migration to New Caledonia and New Hebrides

In 1924, the *Bulletin of Commerce* referred to the interest of Wallisians in migration to New Caledonia.² At that time there were thirty Wallisians there (twenty at Takedji, Ouvea), most of whom had been exiled. In 1940 there were sixty Wallisians in Noumea.

It has been suggested that warfare was a factor in pre-contact depopulation on Futuna (Chanel 1960). However, from the mid-nineteenth century, the Futunian archipelago was one of the few in the Pacific to show a population increase (Table 1). Contributions of population from outside, for example the Tokelau Islands, played a role in this.

From 1946 to 1960, the net annual increase was 160 persons. In 1956, population densities on Wallis were 70 per sq. km at Hihifo, 48 per sq. km at Hahake, and 169 per sq. km at Mua.³ In 1959, an ORSTOM agronomist named Tercinier calculated that in the absence of net emigration at the rate of 200 per year, population density could reach an intolerable level of 170 per sq. km in 1970.

An administrative report of 1959 stated:

In 1938, the annual income per inhabitant from copra was for Wallis and Futuna, around 200 CFP. It is at present 100 CFP for Wallis and 1500 CFP for Futuna. The total income earned from export products which in 1938 was around 12 or 13 million F., was 5 million in 1959.⁴

²*Journal de la Société des Océanistes*, no.19 on Wallis and Futuna, 1963.

³Archives de Wallis-Futuna, Haut Commissariat, Noumea.

⁴*ibid.*

In Wallis, the rhinoceros beetle (*Oryctes*) caused copra production to fall from an average of 596 tons in 1930-35 to 135 tons in the 1946-50 period, and again to 53 tons per year from 1956-59. In Futuna, although the island was saved from the beetle, copra production fell from 597 tons per year in 1936-40 to 344 tons per year in 1956-59 because the coconut plantations were not renewed during World War II. Overseas migration represented the most attractive alternative for the population of Wallis and Futuna to their limited and uncertain subsistence living.

Table 1

Evolution of Wallis-Futuna's population, 1842-1969

Year	Wallis	Futuna
1842	2,600	
1881	—	1,092
1885	—	1,635
1928		6,202
1935		6,542
1953		9,507
1960		8,313
1969		8,446

Source: Archives de Wallis-Futuna, Haut Commissariat, Noumea.

Only Melanesian island countries would accept the outflow of Wallisians, and, until 1960, only French territories could legally accept these 'protected citizens' who then became French citizens in 1961. There was a need for manpower in Noumea for the nickel mines, in construction work and in agriculture, as the flow of Asian workers had ended and the New Caledonians were eager to find replacements.

There were, however, obstacles to this migration. Religious and traditional authorities regarded young Wallisians and Futunians as the basis of their economic power, and important to the hierarchy system in customary insular society. Migration would also mean a loss of free manpower for the church and the heads of clans. In 1947, Monseigneur d'Armancier expressed the fear of the church for the Futunians and Wallisians, until then protected, once they came in contact with the 'realities of the world', and with 'civilization'. He expected administrative authorities

Table 2
History of migration from Wallis and Futuna
to New Caledonia, 1947 to 1962

Year/Direction	Departure (+)	Return (-)	Balance
1947	109	—	+109
1948	14	21	-7
1949	131	85	+46
1950	25	74	-49
1951	89	67	+22
1952	106	52	+54
1953	171	60	+111
1954	247	62	+185
1955	187	86	+101
1956	600	92	+508
1957	404	194	+210
1958	378	257	+121
1959	168	156	+12
1960	366	213	+153
1961	560	326	+234
1962	519	331	+188
Total	4,074	2,076	+1,998

Source: *Journal de la Société des Océanistes*, 1963, no.19, p.177.

Table 3
Arrivals of migrants in New Caledonia from 1969 to 1977

Year	1969	1970	1971	1972	1973	1974	1975	1976	1977	Total 69-77
Numbers	+314	-77	+784	+315	-4	+228	+58	-219	-196	+1203 ^a

^aArrivals 1,679 and departures 476.

Source: Census of New Caledonia, 1969, 1974, 1976.

in New Caledonia to take appropriate precautions on behalf of the migrants. There were other difficulties as well: few Wallisians or Futunians had much formal education or could speak French.

Patterns of immigration

The first departures from Wallis and Futuna were the enlisted soldiers in the regular army and a few ordinary seamen. In 1947-48, the first employed had contracts with their employers (Ballande: trading, Lafleur: settlers.⁵ Food, salary, housing, work schedule, holidays etc. were all specified by the employers. There were, however, mutual disappointments in these first experiences.

From 1951, Wallisians and Futunian migrants took employment on the Yaté dam site and in the mines (Table 2), but it was the nickel boom that gave the impetus to the strong second wave of migration to New Caledonia (Table 3). Recent assessments show the distribution of Wallisians by activity (Table 4) to be similar to that of Europeans except for a lower proportion active. The pattern of Wallisians in employment (Table 5) shows the skilled category to be the most important, with the unskilled and public sector categories also significant.

Noumea has remained the most important single destination for migrants, but there are a number of other significant concentrations in Dubmea, Païta and Thio (Table 6).

The socio-cultural situation

Standards of accommodation in New Caledonia were for a long time very bad for Wallisians and Futunian migrants. At first many were squatters, then they were given temporary accommodation by companies (S.L.N., Ballande), often in pitiable conditions. Others lived in old buildings at low rental rates, which, with average family size at seven, gave rise to many hygiene problems. In 1962, 65 per cent of

⁵In the New Hebrides, Wallisians and Futunians were welcomed in the 1940s as their productivity in copra shelling was three to four times that of the local Melanesians. (*Journal de la Société des Océanistes*, no.19, and Archives françaises des Nouvelles-Hébrides).

Table 4
Employment of Wallisians in New Caledonia

Activities	Wallis (%)	Whole ethnic group (%)	Europeans (%)
Students	11.9	9.5	10.1
Without profession	21.7	25.5	22.2
Retired	2.8	3.6	5.5
Active	40.9	55.0	55.6
Looking for work	5.6	4.5	4.0
Army	1.5	1.4	—
Others	15.6	0.5	2.5

Source: Census of New Caledonia, 1976.

Table 5
Distribution of Wallisians in employment, by occupation

Occupation	Numbers	%
Public employees	51	2.6
Public workers	39	2.0
Army, police	27	1.4
Private sector employees	358	17.9
Foremen	13	0.7
Skilled workers	800	40.0
Unskilled workers	394	19.7
Staff on duty	178	8.9
Clergy	18	0.9
Others	121	6.0
Total	1,999	100.0

Source: Census of New Caledonia, 1976.

Wallisians were classified among those with very bad accommodation in Noumea and its suburbs (McTaggart 1963).

Table 6

Wallisians and Futunians by location in New Caledonia

Recording centre	Wallis and New Hebrides 1956 ^a	Wallis and New Hebrides 1963	Wallis 1974	Wallis 1977
Noumea	586	1,976	1,065	4,336
Canala	90	44	74	
Dumbea	14	51	526	810
Koumac	123	15	30	
La Foa	11	66	238	234
Païta	75	240	920	833
Poya	28	5	124	164
Thio	73	128	510	499
Yaté	132	1		0
Houailou			61	102
Total	1,227	3,016	9,920	9,571 ^b

^aIncludes a few dozen only from New Hebrides.

^bOut of a total of 11,000 from Wallis and Futuna (those not accounted for being somewhere in the bush).

Source: Census of New Caledonia, 1956, 1963, 1974; and for 1977 special census of Haut Commissariat of Noumea (unpublished).

Up to 1960, this situation was a result of economic and social causes. Many migrants were unmarried and were not used to European accommodation and health requirements. In 1956, the sex ratio for Wallisian-Futunians was two men for every woman though from 1957 to 1962 there were twice as many women as men among immigrants. This reversal came about as the migrants recognized the need for family cohesion and realized the attraction of family allowances. The arrival of many female migrants proved a very positive influence for the resettlement of islanders in New Caledonia. From 1965, a social housing policy was adopted in New Caledonia which encouraged the purchase of houses and flats and further enabled the Wallisian community to settle in. In 1976, 48 per cent of Wallisians had been born in New Caledonia, and 60 per cent were less than 20 years old, a

demographic record.⁶

Problems and prospects

The more important factors that will influence the future of Wallisian society include:

- (a) for youth, the decline of customary authority with the growing independence of individuals with money incomes;
- (b) the questioning of the importance of religious observance, accompanying the release of restraints on migration;
- (c) reassessment of the customary pattern of family life under the impact of modernization, e.g. with restriction of family size;
- (d) disturbance to Wallisian social structure with the effects of salaries, modern standards of accommodation, modern attitudes to the role of women, dualism of language, and the consumption-oriented society;
- (e) acculturation of Wallisian youth and the hostility of Melanesians and some Caledonians being shown to their presence; and
- (f) political significance of immigrants and their voting patterns within the French political movements in Noumea.

Economic consequences for Wallis-Futuna

Because of the past migration of working age individuals and families to New Caledonia, and the aspirations of young people to go to work in Noumea, these islands have become holiday islands and havens for the retired. There is, in addition, a new monetary linkage between families in Noumea and in Wallis-Futuna in the form of important transfers of remittances (Table 7). These are clearly important sums in Wallis and Futuna, where about 300 wage earners are employed. The economic crisis in New Caledonia that commenced in 1977 and slowed down the amount transferred has caused some anxiety on the two islands. Migrants have returned without

⁶Census of New Caledonia, 1976.

any resources, and taken lands back that were cultivated in the meantime by parents or relatives.

Table 7
Money transfers from New Caledonia to
Wallis-Futuna, 1970-78

Year	Amount (million CFP)
1970	98.84
1971	118.20
1972	114.20
1973	133.70
1974	167.70
1975	150.00
1976	164.00
1977	101.00
1978 ^a	26.36
Total	1,073.92 ^b

^aFirst 4 months of the year only.

^bExcludes a further 33-50 per cent as 'free remittances' in the forms of consumer goods, plane tickets and important money collections for churches. The total sum equals about A\$10,000.

Source: Office des Postes, Mata-Utu, Wallis, 1978.

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Section IV
**Trade, Transport
and Tourism**

Chapter 9

External trade problems of small island states in the Pacific and Indian Oceans

Edward Dommen

Islands are in general fortunate places. Life is healthy¹ and nature is bounteous though the menu may be short. Politics are friendlier. Hurricanes are usually more dangerous than social unrest.² Why then do so many people emigrate?

In the typical Pacific island nation a large proportion of personal needs and wants are met by subsistence production, that is without cash transactions. In a working week of under 30 hours,³ the rural population is able to maintain itself in a state of 'subsistence affluence'.⁴

This puts these countries in a position of strength in choosing their development strategies and deciding on the pace of economic growth they desire. Nonetheless, subsistence affluence provides only an economically static base. The Comoros and Mauritius have no viable subsistence at all. If the islanders aspire to the standard of living

¹In the Pacific, infant mortality, which reflects nutrition and general health standards, is significantly lower than in continental countries with similar levels of GDP per head: 34 per 1,000 as against 83 per 1,000. Similarly life expectancy at birth in the Indian Ocean island countries is higher (United Nations 1976, 1974).

²These conclusions are drawn from Dommen (unpublished, probably 1980).

³See, for instance, Fairbairn (1973: Ch. 7); Maude (1965); and Lockwood (1971).

⁴In the happy phrase invented by E.K. Fisk.

of more developed countries — as in many ways they do — they must turn to the cash economy, and this consists largely of international trade. Goods purchased for cash are generally so sophisticated that they need to be produced on a greater scale than an island market can provide: consider not only electric generators, motor vehicles and radios, but even cloth, metal tools, and aspirin. Given also the economies of scale in marketing as well as production of local goods and services, it is often more rewarding for a small island country to concentrate on a small number of export activities and to import even basic foodstuffs. For instance, in Fiji on the basis of 1977 rice import and sugar export prices, the product of a hectare of sugar cane (\$2000) can purchase over 2 hectares' output of rice (\$900).⁵ 'To a degree rice and cane are competitive and thus one effect of a healthy sugar industry has been to reduce rice production in cane areas' (Fiji 1975, para. 11.65).

In short, foreign trade is the heart of the cash economy and as irreplaceable as any other heart. Table 1 illustrates the openness of island economies.

It does little violence to reality to divide island economies into two sectors. The first is the sector serving foreign trade. This includes, apart from the export activities themselves, the trading firms and much of banking and transport — all three of which are also heavily dependent on importing as an activity — and indeed a large share of government services. This sector accounts for two-thirds or more of GDP even for a relatively sophisticated island economy like Mauritius. The remainder of the economy can be described as playing a quartermaster function: it supplies such support services as housing, a proportion of food and some social services to those engaged in the foreign sector. Indeed, at least in some of the Pacific island countries, the two functions can be distinguished in that while the foreign sector is exclusively monetary, the support activities are largely non-monetary.

⁵A hectare of land actually producing these crops. As actual rice land yielded less sugar when it was used for that purpose earlier and actual sugar land would yield less rice, this comparison understates the case.

Table 1

Imports as a percentage of GDP, 1976

American Samoa	140
Comoros	18
Fiji	40
Fr. Polynesia	47
Gilbert Islands (1975)	21
Guam	58
Maldives	21
Mauritius	61
New Caledonia	31
New Hebrides	64
Samoa	57
Seychelles	106
Solomon Islands	41
Tonga	39
TTPI	61
World average (1975)	15

Source: UNCTAD Secretariat.

Long vertically integrated chains of economic activity are not often found in small island countries. Permeability to the world can be found at most points of the local economy. Not only is a large share of consumer goods imported, but so are inputs into virtually all local monetary economic activities. The local economy is thus very exposed to events overseas; external shocks are transmitted directly. Even in relatively sophisticated Fiji the multiplier is well under two.⁶

⁶Since the multiplier reflects the number of times a dollar changes hands before leaking out of the economy, and time passes between each change of hands, it constitutes a measure of the ability of the economy to cushion shocks.

Given the dependence on overseas sources for so many intermediate as well as final goods and services, a disturbance to the expected flow of supply can impede the functioning of the economy. This is a matter not just of interruptions in the flow, but even of irregularities.⁷ Hence the stress governments lay on regularity of service. Infrequent service, which makes irregularities so noticeable in several island countries, is due to the small size of the market relative to the size of ship which can economically travel the long distance to it. The unfavourable ratio of ship size to market is worsening because of cost pressures and technical change in the shipping industry.

The value of visible exports of small island countries can fluctuate to a degree which renders budget-making at all levels from government to the household precarious. Table 2 illustrates these fluctuations for a selection of countries.

It is obvious that a sudden fall in income is disruptive, but a sudden rise can also be disturbing. In the face of lags in the adjustment of supply, or of traders at home or overseas alert to profit opportunities, the effect can be inflationary. Decision-makers may be encouraged by a passing rise in price which they expect to be durable to undertake long-term commitments which become burdensome when the price falls again.

It is likely that small island states tend to adjust to the fluctuations by reacting to peaks partially and with a lag, which involves waste when inflation is running at the rate of the 1970s, but which serves to cushion the troughs.⁸

⁷One small island country expected a freight liner every six weeks from a major supplying country. On one occasion, two of these liners called at the same time. The immediate effect was to increase unloading costs: the second ship had to tie up next to the first and unload across it, since there was only one quay. It also ensured that traders would have excess stocks (since they ordered for expected sales over a six-week period and they now had twice that quantity of goods), following on a shortage at the end of the previous three-month gap between ships. Both the glut and the shortage imposed further costs on the commercial sector.

⁸Commodity boards often act this way, so that particularly with inflation the price received by growers is actually on average lower than it would otherwise be.

Underestimating or reducing the average return in this way results in underinvestment and underproduction. Where subsistence is affluent, producers may react by generally withholding part of their output of products like bananas or coconuts from the market and consuming it themselves, rather than selling it and buying food for cash.

Table 2

Export value indices (1971 = 100)

	1972	1973	1974	1975	1976	1977
American Samoa	175	207	125	240	250	300
Comoros	100	83	67	167	150	150
Fiji	107	126	209	230	184	251
Gilbert Islands	80	170	330	360	220	200
Mauritius	165	211	477	458	408	480
New Hebrides	100	146	208	77	115	215
Seychelles	179	238	328	215	268	319
Samoa	83	117	217	117	117	217
Solomon Islands	110	140	260	150	230	250
TTPI	87	63	267	287	160	363

Source: UNCTAD Secretariat.

The fluctuations in earnings from visible exports are to a large degree due to the narrow export base (Table 3). The quantity of individual exports is also subject to wide fluctuations. Samoa's exports of cocoa beans fell from 2747 to 1389 tons from 1971 to 1972. At the same time (as it happens) the Seychelles exports of cinnamon bark rose from 1277 to 1975 tons. Exports of copra from the New Hebrides rose from 22,000 tons in 1973 to 36,000 in 1974 and fell again to 27,000 in 1975. Wide fluctuations in quantity can be due to the small size of total output (a small absolute change is a large relative one), and in some cases to the small land area (a hurricane which would affect only a small part of a large country can devastate a large part of a small one). In principle, the island environment,

by fostering biological types especially vulnerable to imported pests and diseases, can also be a factor. The citrus industry of Rodrigues was wiped out in this way around 1940 (North-Coombes 1971).

Table 3
Structure of visible exports

	Year	% of visible exports	Products
American Samoa	1974	98	Tuna, watches
Comoros	1972	85	Vanilla, ylang-ylang, cloves
Cook Islands	1975	73	Fruit and vegetables, copra
Fiji	1975	76	Sugar, gold, coconut oil
Gilbert Islands	1977	100	Phosphate, copra
Mauritius	1975	85	Sugar
New Caledonia	1974	99	Nickel and products
New Hebrides	1975	84	Copra, fish, frozen meat
Niue	1976	75	Fruit products, copra
Samoa	1975	72	Copra, cocoa
Seychelles	1977	88	Copra, cinnamon bark, frozen fish
Tonga	1976	82	Copra and coconut products
TTPI	1975	90	Copra, fish
Tuvalu	1977	100	Copra

Source: UNCTAD Secretariat.

The prices of traditional commodity exports are notoriously volatile (see Table 4). Statements like: 'Prices received from copra fluctuated widely, from an all-time low of \$66.50 per ton in March, 1972 (for Fiji 1 copra) to an all-time high of \$597.50 two years later and again dropped to a low \$95.00 early in 1975' (Fiji 1975) are easy to find.

At least with tree crops like cinnamon bark, copra or cocoa, when the price becomes uninteresting they can be quickly abandoned, but they can be brought back into the market equally quickly if the price becomes attractive again.

Prices stable and remunerative over a sustained period are an important incentive to output, not only in the short, but also in the long run because of the encouragement they offer to investment. Hence the value of the Lomé Convention's Stabex scheme to those island countries for which it is available.

This problem is of course not peculiar to small island countries: it is a world-wide one, and the reason for UNCTAD's continuing efforts to establish an Integrated Programme for Commodities.

Table 4

Commodity price indices

	1970	1971	1972	1973	1974	1975	1976	1977
A. Seychelles:								
Unit value indices of specific exports								
Cinnamon bark	100	93	106	157	172	119	112	
Copra	100	89	59	121	282	222	279	
B. Fiji								
Indices of average world market prices								
Sugar		100	165	199	586	411	258	195
Copra		100	63	184	378	106	128	223
Gold		100	142	238	390	394	306	361
C. World free market price								
Cocoa	100	80	95	168	231	185	304	

Sources: A. Seychelles (1977), B. Fiji Bureau of Statistics (various years), C. United Nations (1977b).

However, where price volatility is compounded by sudden large variations in output and the whole is transmitted to the national economy with little abatement because of the narrow range of exports and the dominant role of exports in the economy, there is an especially island problem.

In the circumstances, the best advice to offer to a small island country might seem to be 'diversity'. However, to diversify among export commodities has only limited advantages. Different commodities are likely to respond differently to natural disasters. Their prices also fluctuate to some extent differently, but Table 4 suggests that the main peaks and troughs seem roughly to coincide. Given the importance in a small economy of economies of scale in both production and marketing and the limited overall productive capacity of the country, diversification into more commodities may entail high unit costs for the new products and increased costs for the old.

It seems therefore more desirable to diversify into new areas altogether, and this is indeed what the island developing countries are already doing. Mauritius, for example, achieved a rate of growth of real GDP per head of 7 per cent per year, or twice the world average, over the period 1970-75, by vigorous diversification (Table 5).

Table 5

Mauritius: real growth of elements of GDP

Sector	1975, as a percentage of 1970
Agriculture	96
Industry	171
Services (including hotels and restaurants)	154
GDP	143

Seen from the point of view of the investor, island countries can be particularly suitable locations for off-shore investment. Firstly, they often provide a legal and

institutional framework for such investment familiar to the investor, since they have a long tradition of playing host to it. Secondly, it can be asserted on the basis of statistical evidence that island countries tend to be politically more stable than continental ones (Dommen, forthcoming). Political stability being a major consideration with investors, this is among the island countries' assets. Thirdly, island countries usually have a higher school enrolment ratio than continental countries of the same income level; thus the investor is more likely to find suitable workers (see Table 9). From the island economies' point of view, given their openness it is reasonable for them to welcome foreign capital to finance business investment: the market, and therefore the risks, are overseas. Indeed, many fields of investment are riskier in an offshore venture than in the metropolis because they are marginal to the metropolitan economy. It is sensible for islanders to allow the foreigners to carry the risks. Furthermore, foreign investment often brings with it the contacts with the market overseas which can be excessively costly for local businessmen to attempt to build up from scratch.

Certainly, reliance on foreign capital is usual in small island countries. For example, in Fiji foreign firms 'altogether have accounted for something like three-quarters of the total gross fixed capital formation in all industries'.⁹

Many leading sectors tend to develop, at least in their early stages, by means of a joint venture in which the island country provides a natural resource and a foreign partner much of the know-how and capital. This pattern is common in tourism, mineral and forest exploitation, as it undoubtedly will be in exploiting the new 200-mile exclusive economic sea zones.

Islanders would, as a rule, be well advised to avoid investing their scarce capital in ventures whose risks are beyond their ken, but clearly they should not deny themselves the opportunity to participate in remunerative ventures. For instance, once the initial, and usually most risky, period has passed islanders can acquire a stable investment while at the same time providing capital for the expansion of the business. It may, incidentally, be noted that on occasions when a foreign venture has failed, it has been

⁹At least up to 1970 (Ward 1971).

possible for local investors to acquire the assets at a price low enough for them to be viably used again.

On the other hand, the owners of capital have considerable influence over its use. Foreign businessmen come with the capital, bringing with them their own ideas on work, the proper 'climate' for business, commercial policy and other aspects of local social and political life. They are also consumers: they not only set an example in consumption patterns and compete for scarce resources such as urban housing and land; they make articulate demands for what they consider to be 'normal' standards of schools, roads, telephones and other services. Since the expatriates are especially concentrated in urban areas, the attractions of urban relative to rural life are enhanced in so far as the government meets these demands.

There is therefore much to be said for keeping a reasonable proportion of the national capital stock in local hands, and indeed for calling on outside investors only to complement local effort or to achieve a reasonable relationship between investment and risk. The reasonable proportion need not be large at the outset.

A minority shareholding alone guarantees neither control nor even a full share of the financial rewards. It is more important that there be local directors on the boards of such foreign-financed companies, and that company law support them and the local shareholders by requiring that they receive adequate information and that their voice be effectively heard.

Bearing these criteria in mind, there are a number of activities to which small island countries could give special attention in trying to attract foreign investment.

Tropical islands usually are blessed with an equable climate, magnificent scenery and fine beaches. Some also have a particularly charming architectural heritage. Tourism has therefore been able to develop prodigiously except in those territories particularly remote from world air routes; it constitutes the largest 'export' industry in many island countries. Indeed for some the problem is to control rather than to encourage the growth of this sector.

Table 6 illustrates the performance of tourism in Fiji and the Seychelles. The Fiji case shows that this

industry is not exempt from fluctuations either. Expenditure per tourist — which can be taken as roughly the 'unit value' of tourism services — even fluctuated in 1970-74 on the same pattern as the commodities shown in Table 4. The Seychelles, on the other hand, has enjoyed a steadier growth in tourism. It has nonetheless been urging the inclusion of tourism in the Stabex scheme, which is a sensible and far-sighted proposal (see also Table 8).

In general, tourism seems to be more reliable as a source of foreign exchange than traditional commodity exports. Nonetheless, the degree to which it should supplant rather than complement traditional export activities depends on the particular circumstances of individual countries.

The hotel-building industry can usefully be distinguished from the tourist industry. Indeed, the hotel industry in the islands can in many cases be described as a capital goods export industry.¹⁰ Foreign capital finances the construction of the hotels. The local content and the employment generated in construction are higher than in operating the finished hotel. Once it is finished, it is owned by foreigners, selling to a foreign market, using a high proportion of foreign inputs — rather as if the hotel had been exported on completion. In such circumstances there is much to be said for fiscal incentives to hotel construction and frequent reconstruction, as have been known in Fiji where employment is a priority as well as foreign exchange inflow.

Tax havens as a source of foreign exchange are particularly suited to small island countries. Given precisely that their economies lack internal linkages, consisting rather of export activities unconnected to each other which finance the import of inputs and consumer goods, there is little difficulty in designing a set of tax advantages which not only do not weaken the domestic tax base, but actually widen it beyond what the local economy itself could provide. This is trickier to achieve in more sophisticated economies where internal linkages are stronger, which helps explain why countries like Fiji or Mauritius are not regarded as tax havens. What is more surprising is that among the island countries of the Indian and Pacific Oceans, only the New Hebrides has succeeded in establishing itself as a significant financial centre. (Although Nauru and the

¹⁰A view expressed by Professor J.E. Meade.

Table 6

Tourism

A: Fiji

	Visitor arrivals ('000s)	Tourist expenditure (\$F million)	Expenditure per tourist (\$F)
1965	40	7.4	185
1966	45	n.a.	n.a.
1967	56	11.2	200
1968	66	n.a.	n.a.
1969	85	20.6	242
1970	110	24.4	222
1971	152	31.6	208
1972	166	35.5	214
1973	186	49.2	265
1974	181	60.8	335
1975	162	70.1	433
1976	169	76.1	450
1977	173	80.0 ^a	462

n.a. Not available. ^aProvisional.

Sources: Fiji Bureau of Statistics (various years); Fiji (1975); Ward (1971); Asia Pacific Research Unit (1977).

B: Seychelles

	Visitor arrivals ('000)	Visitor expenditure (million rupees)	Expenditure per tourist (rupees)
1970	1.6	n.a.	n.a.
1971	3.2	n.a.	n.a.
1972	15.2	18	1184
1973	19.5	27	1385
1974	25.9	43	1660
1975	37.3	85	2279
1976	49.5	140	2828
1977	54.4	175 ^a	3217

^aProjected.

Sources: Visitor arrivals, Seychelles (1977); Visitor expenditure, Department of Economic Development, Planning and Housing, Seychelles.

Seychelles are mentioned as serious candidates in the International Tax Haven Directory – Tax Haven Review (1977).)

Given the islands' receptiveness to foreign capital, their economic orientation towards overseas markets and the availability of relatively adaptable labour, it is also surprising how few have developed export processing zones (EPZs).

In Mauritius, the venture has been an outstanding success (Table 7). Employment in EPZ enterprises rose from 644 to 8969 in the four years 1971-74. It has contributed substantially to reducing the share of sugar in visible exports from virtually 100 per cent in the 1960s to 85 per cent by 1975. It has not only reduced the country's dependence on sugar, raised real incomes and generated employment, but also dispelled the earlier gloom and given rise to a new mood of self-confidence in the country. It is said that whereas in the past parents used to press their daughters to marry in order to relieve them of a financial burden, they now urge them not to, so as not to lose a source of income (E. and B. Dommen 1977).

Table 7

Mauritius export processing zone

Products	No. of enterprises	Employment	F.O.B. value of exports in 1974 (Rs million)
Textiles	25	6,589	60.2
Electronics	4	1,587	48.1
Diamonds	1	174	20.6
Other	15	619	6.7
Total	45	8,969	135.6

Source: Mauritius 5-year plan 1975-80.

The Generalized System of Preferences (GSP), under which developed countries grant tariff preferences to certain imports from developing countries, enhances the attractiveness of manufacturing in developing countries. Furthermore, some developed countries, including Australia,

Canada, Japan and New Zealand, allow materials or components of their own manufacture to count towards the acquisition of origin status in the preference-giving countries. This *developed country content* provision is an encouragement to the type of export processing particularly suited to a number of small island countries.

However, for island countries small scale rather than tariff barriers creates the main obstacles to the development of manufacturing and access to markets. In industry at least, small island countries can usually support only small enterprises. Even where these enterprises could be competitive in terms of production costs, the administrative requirements of international trade can prove very costly.

In the first place, foreign investors may be unaware of opportunities or unwilling to invest large amounts, for example in travel costs on the off-chance that distant island location might be suitable. In this context, it is worth noting that Australia lends funds for feasibility studies to firms contemplating erecting a plant in a developing country in the South Pacific. It is also assisting SPEC to set up a South Pacific Trade Commission in Australia. The New Zealand Pacific Islands Industrial Development Scheme (PIIDS) in a variety of ways assists New Zealand enterprises to locate in the islands; it also assists Pacific island countries in export promotion and can provide financial assistance to promote local equity participation. New Zealand Trade Commissions also provide marketing assistance to Pacific island producers.

If the establishment of a new industry called for detailed negotiations on access in an overseas capital most local entrepreneurs would be too daunted even to try. Moreover the scale of many potential industries, while appropriate to an island country and able to make an important contribution to the economy, would not be large enough to support the visits to capitals that could be required to engage the attention of busy officials on matters which in correspondence may seem comparatively trivial (SPEC 1978).

Voluntary and forced emigration ('blackbirding') was a feature of the Pacific islands in the nineteenth century. White people have tended to emigrate from the islands all along; it is said for instance that the Franco-Mauritian population of Mauritius has not increased since 1810. It is in the last thirty years, however, that cyclical and

permanent migration have become general features of island populations, affecting all classes. In the South Pacific, it is the most noticeable demographic feature. It is a two-step affair, involving movement firstly from the outer islands or rural areas to the towns and secondly to the major centres of the Pacific rim — the West Coast of North America, Hawaii and New Zealand in particular. Some work abroad is located, not in another country at all, but on ships.

In Western Samoa, to take but one example, it is estimated that since 1972 the annual rate of natural increase has been about 3 per cent. However, emigration has almost entirely cancelled out this increase: total population was estimated to have grown by only 0.2 per cent in 1974. The smaller island territories which lack urban amenities but whose inhabitants enjoy access to New Zealand have populations which have actually declined through emigration. Most dramatically, the population of Niue dropped from 5000 in 1971 to 3900 in 1974.

It must not, however, be assumed that emigration will continue to the point of total depopulation: the population of the three unpromising atolls of Tokelau, after a period of decline encouraged by official assistance to those wishing to resettle in New Zealand, appears to have stabilized around 1600 people. Indeed some Tokelauans may be returning, finding the cosy island society, even with its limited affluence, more congenial than the money chase in New Zealand.

The root cause of migration is in general the attraction of the goods which money can buy, and for a young person the freedom from responsibilities of membership in a cohesive social group, rather than the stark pressure of overpopulation. Furthermore, communications with outer islands are deteriorating, largely because of growing labour costs not only in the metropolitan countries but also in the urban centres of the islands themselves. As a result transport costs are rising — which reduces the outer island producers' share of revenue from export products (mainly copra) and increases the price of supplies purchased from the capital or abroad (Dommen 1977).

In any event the migrants send remittances to their family at home, or return with capital which they invest in business or at least in house-building. This foreign income can contribute significantly to the economy of the islands.

Providing a base for military types of activity can be lucrative, though sometimes overpowering. It is an important source of foreign exchange to TTPI, Guam and French Polynesia,¹¹ and a useful contributor in the Seychelles.

There are fashions in the development options supported or derided by the development lobby in developed countries. Current fashions — food, rural development, the poorest of the poor — may well correspond to the needs of many developing countries, and may support some of the aims of several island developing countries. However, the dynamic sectors, on which the development as opposed to the mere sustenance of small island economies depends, are often unfashionable if not down-right unpopular — tourism, multinationals, migration (including work on foreign ships), financial centres, export processing zones. This unfavourable image can hinder the island countries in their efforts to develop their economies. Public relations, like trade promotion, call for time and money particularly difficult for small communities to spare. Yet island countries will need good public relations and steely-nerved governments if they are not to allow their newer development options to be progressively closed off.

So much for the details of the external trade problems and prospects for island developing countries. They can be put in perspective by a review of the basic structure of the world economy.

The international economic order can be explained in terms of the relationships between the centre and the periphery.¹² For one reason or another a centre emerges. The main reason is technical and institutional leadership (Galbraith 1973), but other factors such as mineral wealth or the location of political power can also be decisive.

The power of decision not only over the pace, but over the very direction of development, rests with the centre.

¹¹Four-fifths of total exports from French Polynesia for 1974 was made up of re-exports of nuclear material from the French test centre (*Overseas Business Report*, US Department of Commerce, April 1978).

¹²E.g. Myrdal (1957), Perroux (1961), to name but the early proponents of a theory which has been much developed since.

The periphery depends on the centre through the interplay of the backwash and spread effects the centre generates.

Through backwash effects, the centre attracts dynamic immigrants and capital — the contribution of both of which to technical progress is probably more important than their contribution simply to increased output. The centre also reaps economies of scale, including the development of linkages and thus infrastructure: this makes the centre even more attractive.

On the other hand, the centre, being rich, provides a market for the products of the periphery: this is the root of the spread effects. A peripheral location benefits more from the spread effects if its products are income-elastic (like tourism) or if it is near the centre. Nearness is measured not so much in kilometres as in convenience and cost of transport. Better transport and easier access to the services of the centre encourage a wider range of trade. Cultural affinities strengthen the spread effects. Mineral resources can constitute a useful medium for spread effects (Nauru is a good example, while the Gilberts reveal the limitations of this medium for an archipelagic country).

The activities which are the motor of the small island economies are dependent in that, although the islands may accept or reject them, they cannot create or maintain them without involving the centre. The particularly poor island countries are those which have failed to establish sufficiently intimate relations with a prosperous protector.¹³ The Maldives depend economically on Sri Lanka, which is itself a poor country, and the Comoros have so far failed to touch the heart of France where Réunion and French Polynesia have succeeded.

The cultivation of activities in income-elastic demand overseas is the key to prosperous dependency. There is a danger in this strategy, though, since a decline in income in the centre may have an amplified effect on the peripheral country. Although diversification between markets can to some extent cushion this effect, this is not a panacea since the developed market economies (the centre) tend to move into

¹³The importance of a prosperous protector to the foreign exchange receipts of island countries is still more evident if one examines aid flows, but they are outside the scope of this paper.

boom or bust more or less in step. Fiji tourism in the 1970s illustrates both the amplification of fluctuations and the limitations of market diversification.

Anyway, it was pointed out earlier in this paper that sudden fluctuations are a fact of island economic life. Fluctuations around an upward trend are preferable to ones around a stagnant or declining one. Striving to shift dependency from less to more dynamic partners is as sensible as striving to develop income-elastic activities.

Table 8

Dependency illustrated

	<u>Annual growth (%) in</u>	
	A	B
	Tourist arrivals Fiji	GDP per head in real terms Developed market economies
1971-72	9.2	3.9
1972-73	12.0	5.6
1973-74	-2.7	-0.9
1974-75	-10.5	-0.9
1975-76	4.3	4.5

Sources: A: Table 6. B: United Nations (1977b).

The island countries which succeed best in the international economic order are those which are most able to adapt to changes in the economic climate at the centre. (Following the leader is another aspect of dependency.) The islands' human resources are therefore the key to development: on their openness and receptively innovative spirit depends their countries' ability to keep up with the world economy. In this respect the Comoros can be contrasted with Mauritius. The Comoros' period of prosperity was based on the slave trade, and the country failed to adapt to the collapse of the market. Mauritius, on the other hand, has lived off a variety of activities in its three centuries of history and experimented with many more. It is now striving to escape its exclusive dependence on sugar (Table 5).

Table 9

Primary and secondary school enrolment ratios

	%	Year
American Samoa	98	1969
Comoros	30	1969
Fr. Polynesia	109	1969
Gilbert and Ellice Islands	78	1972
Guam	109	1969
Mauritius	61	1972
Nauru	96	1965
New Caledonia	105	1972
Niue	100 ^a	1976
Samoa	68	1969
Seychelles	125 ^a	1976
Solomon Islands	55	1967
Tokelau	100 ^a	1977
Tonga	104	1969
TTPI	110	1972

^aApproximately. The rates over 100 per cent are presumably due to the presence in school of children outside the expected age range, older or pre-school children in particular.

Sources: United Nations (1976), Niue (1977), Seychelles (1977), Tokelau (1978).

At any one time, the small size of the island country, coupled with economies of scale in marketing, limits the degree to which the country can diversify its output or its markets. A narrower export base, though subject to shocks, may be more lucrative while it lasts than a wider but less dynamic one.

The future of these island countries depends on their ability to keep one jump ahead, whichever the direction in which they will have to jump. Adaptability is the key asset in these circumstances, and this depends on openness, responsiveness and inventiveness.

A high standard and wide spread of education contribute substantially to these qualities. They are further encouraged by circular migration, during education and after. The school enrolment ratio is higher in island than in continental countries at similar levels of income (Dommen, forthcoming). Table 9 gives school enrolment ratios for island countries in the Indian and Pacific Oceans.

Inventiveness, however, is limited by the number of inventors, and this can never be large when the total population is small. It is, therefore, necessary to supplement local with outside inventiveness; willingness to do so is an aspect of openness and responsiveness.

If that describes the essence of the foreign trade strategies open to small island countries, it does not follow that these countries should simply sell their souls abroad. The local economic base should not be wantonly discarded, but cultivated and strengthened. The relationships between the local base and different kinds of foreign sector development vary markedly from one island to another, and although they make up the bulk of national economic issues in developing island countries, to explore them here would take us beyond the scope of such a general paper.

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Chapter 10

The transport factor in island development

Harold Brookfield

This paper is devoted mainly to sea transport in the Pacific region, limited reference being made to air transport or to the Indian Ocean. The purpose is to examine new maritime technology in relation to the needs of the island and coastal trades of the region. The position is taken that the rapid spread of containerization is imposing a heavy burden of investment in port facilities on the countries of the region, which has the effect of further centralizing trade and activity, and of marginalizing areas separated from the main ports by sea. It is suggested that it is not yet too late to attempt a greater integration of the different levels of trade by means of an emphasis on investment at sea, rather than ashore. The place at which to begin is the large number of places served which have either no port facilities at all, or have only jetties unable to bear heavy loads. These require service by a more efficient type of vessel than is presently in use, and it is proposed that the basic type of vessel required should be a sophisticated landing-craft type vessel, built as a conventional ship but with bow-doors and ramp, and with space for bulk liquid cargo, freezer cargo and passengers, and carrying cargo-handling equipment able to lift unitized loads of small size ashore. Other places can, however, be served by simpler landing-craft barges, carried aboard ship on the LASH (lighter-aboard-ship) principle. It is then suggested that this level of trade can be integrated with the inter-main-port trade by means of barge-carrying vessels, capable also of carrying containers and other cargo, provided that such vessels are able to operate both intranationally and internationally. This is seen as a proper role for the Pacific Forum Line, which also requires the creation of two fully-equipped interocean terminals in the Pacific region, to serve as its bases, and be the main points of interface with international trade beyond the Pacific region.

Background

Efficient sea-going craft came to all islands well-removed from large mainland areas with the first settlers. There is therefore no reason to suppose that any such islands ever constituted man-environment systems evolved in total isolation or that the well-evolved trading systems encountered in most parts of the Pacific by the first European visitors had anything but a long history. Maritime knowledge may have been lost by the people of large and varied islands, as perhaps by the Arawaks of the Greater Antilles, the Malagasy, the Maori and others, but the small populations of small islands could scarcely have survived and prospered without the means of communication, however occasional, with fellow islanders elsewhere. Both in the Pacific and in the northern and western Indian Ocean ancient trading systems linked island with island, and even archipelago with archipelago. Such systems supported specialization of resource use, made possible the creation of island states, and in some areas permitted the more mobile people of small islands — or the desert-shore ports of southern Arabia — to exert dominance over land-based people at considerable remove. Sea-states around the Koro Sea in Fiji dominated all Fiji until late in the nineteenth century; on a much larger scale the seagoing Arabs dominated eastern Africa as far south as the Madagascar Channel and as far inland as the great lakes.

The destruction of these ancient systems by agents of a world-wide trading system based on superior marine technology, and on commercial, political and military organization, destroyed the independence of islands more devastatingly than is generally allowed in the literature. Couper (1973) has shown how island people in the Pacific first attempted to adapt the new technology to their own needs so that — by local standards — very large resources were used for the purchase and operation of sea-going ships always a little less than fully modern. He has also traced the failure of almost all these attempts to retain control of the sea lanes, and the resulting dependence on foreign-owned shipping that, at its zenith, included control of international, interisland and feeder services alike, at least to the extent of being the rate leader in services down to the remotest ends of the system (Baker 1974). The shipping owned on small islands and in remote coastal areas is now so reduced that many islands are without vessels larger than the motorized 'punt'; the wreckage of successive

cyclones is rarely replaced, and the situation in which all island shipping is based at the port cities has become general. In turn, most of these local fleets are now becoming obsolescent, and too costly to operate without massive subsidization. Many ships are second, third or fourth-hand vessels built for service elsewhere, with rusting metal hulls or rotting timber, ancient engines, very poor cargo storage and cockroach-ridden passenger accommodation. Service to outer islands and remote coastal places has deteriorated and is deteriorating. Costs are rising faster than freight rates, and the incentive to private enterprise is fast declining. The business of serving outlying places is — willy-nilly — becoming the responsibility of governments and hence of taxpayers. In these circumstances there is an active search for an appropriate marine technology.

The present paper is designed to assist in this search. In spite of limited close experience of the sea, I have studied the interisland business in the New Hebrides in 1965 and later over the whole Melanesian region, in part by sea travel as participant observer (Brookfield and Hart 1971). More recently, I became involved in a study of the marine infrastructure of development in Fiji, as an essential part of a regional population, environment and development project (UNESCO/UNFPA Project 1977; Brookfield 1978, 1979a, 1979b; Brookfield and Bedford 1979). In June 1979 I participated in a MARINTEC seminar on interisland shipping in Singapore, where the range of new technology was set forth and its merits vigorously argued. This paper reflects my somewhat patchy experience, and is in part a review of the results of the Singapore seminar in the light of Fijian and earlier experience, including experience in the Caribbean.

The paper has three main parts. Initially, it is argued that island economies are trade-dependent and that trade is essential for island welfare as well as island development. This has led to a condition of dependency in which technology has been accepted from without. The manner in which the new international maritime technology has impinged on the island trade is then examined in some detail, with emphasis on the manner in which investment has been forcibly concentrated on international connexions and trans-shipment. The widely-recognized three-tier structure is expanded and a five-tier structure is suggested, from inter-oceanic containerized operation down to the ship-to-shore business at places without ports. Present conditions in the island trade, including recent innovations, are then

reviewed. Current policies are examined, in particular with regard to the question of a modal split between cargo (by sea) and passengers (by air), which is an important issue in some parts of the Pacific. In a third section, a possible range of new technology is examined, and an 'ideal' structure for its use is described. There are, however, serious problems confronting the adoption of such a structure, both political and economic. National autarky is the most serious of these problems, and it is suggested in conclusion that the future of the island trade lies in the hands of the present generation of policy-makers.

Though the paper is concerned mainly with dry cargo and passengers, some reference is made to the problems of bulk and liquid cargoes. Interrelation of new transport developments with greater use of marine resources is not, however, discussed.

Islands at sea

Trade-dependent economies. The people of the Pacific islands depend heavily on trade for the maintenance of their standards of living, and it is perhaps more important to say this than to remark that rural economic development depends on the ability to deliver 'the products of the soil and sea to island ports for shipment' (Solomon Islands Ministry of Works 1976, cited in Ward *et al.* 1979:383). Both statements are true, but the former is more fundamental for it has always been true. On a per capita basis the imports and domestic exports of four Pacific island countries and of the single Fijian island of Lakeba can be valued as follows in 1976 or 1977 (Brookfield 1979b).

	Imports \$US	Domestic exports \$US
Solomon Islands	123	105
Western Samoa	293	108
Tonga	220	81
Fiji	460	173
Lakeba Island, Fiji	107	74

Within these data, the per capita import of foodstuffs alone ranges from \$US21 in the Solomon Islands to \$US84 in Fiji; it is \$US35 on Lakeba, and was as high as \$US48 in 1974 when high copra prices gave greater purchasing power to the islanders. In a great many Pacific islands a significant proportion of food and building materials, much the greater

part of extrasomatic energy needs, and virtually all household goods, tools and clothing are now imported. This is paid for mainly by the specialized use of resources to produce commodities for export, together with varying levels of external aid, remittances and other outside sources of funds. The Pacific and Indian Ocean islanders are as dependent on trade as are the Caribbean islanders, of whom it has been remarked that:

Caribbeanists start with the premise that small countries, because of their limited resources, must exchange the products of their few specialized resources against a variety of imported goods ... and that this need to participate to a very high degree in international trade is one of the most serious constraints, as well as a permanent one, on the small island system since it renders the system extremely vulnerable to external factors (Marshall, forthcoming).

Selwyn (1978:11) has gone on to observe that:

Dependence is not merely a question of the relation between the island country and the rest of the world; the country's own economic and institutional structure will reflect its external dependence.

The sort of distortion envisaged by Selwyn to some degree parallels that modelled by Levitt and Best (1975). In this Caribbean-based interpretation the primary role of an island economy is production of a staple, and each local production unit is either initially, or becomes, linked to parent firms in the metropole. Supplies for the staple industry are imported because it is cheaper to do this than either to devote limited resources to their production or to restructure the economy so as to produce these intermediate goods locally. In the plantation case, labour is also imported because this is cheaper than the attraction of a freely-engaged local labour force. The staple is exported either in raw condition, or more commonly weight-reduced, but does not supply any local industries based on its production. Even final demand linkages (Watkins 1963) — investments in production to supply the workforce and the local population — are weakly developed because resources are locked into export production. There is also an established preference for imports, so that locally-produced goods are hard to sell in competition with imported commodities. The 'map of linkages' in the local economy is

fragmented rather than integrated, and the principal connexions all take place in the metropolises.

Persistence of conventional thinking about island development

As a generalized statement of the structure of most island economies in the Pacific and Indian Oceans the above statement has considerable verisimilitude. Moreover, a good deal of rural development planning even in the very recent past has tended to perpetuate this same structural mode, with emphasis on growing more export crops of various kinds, and devoting yet more resources to their production. In recent years there has been a useful emphasis on forward-linkage industries carrying processing at least a stage or two further before export, and in some countries — outstandingly Papua New Guinea in the Pacific region — there has been a very wholesome new emphasis on production for final demand within the country. The UNESCO/UNFPA Project in Fiji proposed a parallel shift of emphasis for the larger and more fertile of the east Fijian islands, taking advantage of growing urbanization of Fiji to develop agricultural production for the home market and provide islanders with a more stable outlet for the produce of their rich natural resources; unfortunately, these proposals do not seem to have been received with any great warmth in Suva where the outer island 'problem' continues — as in many other places — to be viewed in terms of welfare economics.

Interrelation of transport and development. This preliminary discussion may now be 'armed', so to speak, by pointing up its significance in any review of the problems of island transport. As we shall see below, dependence is powerfully reflected in the enforced importance of international shipping and cargo-handling systems developed with the needs of high-wage economies and road-based transportation systems in mind. These trends at sea, and in the air, have been powerful aids to the centralization from which all island economies are suffering; the lack of technological innovation in the outer island and coastal trades has permitted outer islands increasingly to become dependent on town-centred national systems without the means of benefiting from the division of labour produced by urbanization. The problems of development in island and coastal peripheries and the problem of transport networks are completely inter-related; decisions taken in the one area involve, *ipso facto*, decisions in the other. We have seen that most thinking about island development has hitherto been in

conventional terms; so also has most thinking about island transport. Efforts have been made to fill gaps in the network created by changes in the international system; island services are conceived mainly as feeder services to the international system. Because international passenger traffic has moved from the sea into the air, so also must island and coastal passenger traffic. Because modern ships need more elaborate ports, island networks must be structured around the provision of ports. Because all this is very costly, outer-island and coastal development too are costly. The dependency pattern reaches down to the very outer ends of the system, and while small may be beautiful it is also growing more and more burdensome.

Twenty years of change

The effect of changes in the international system.

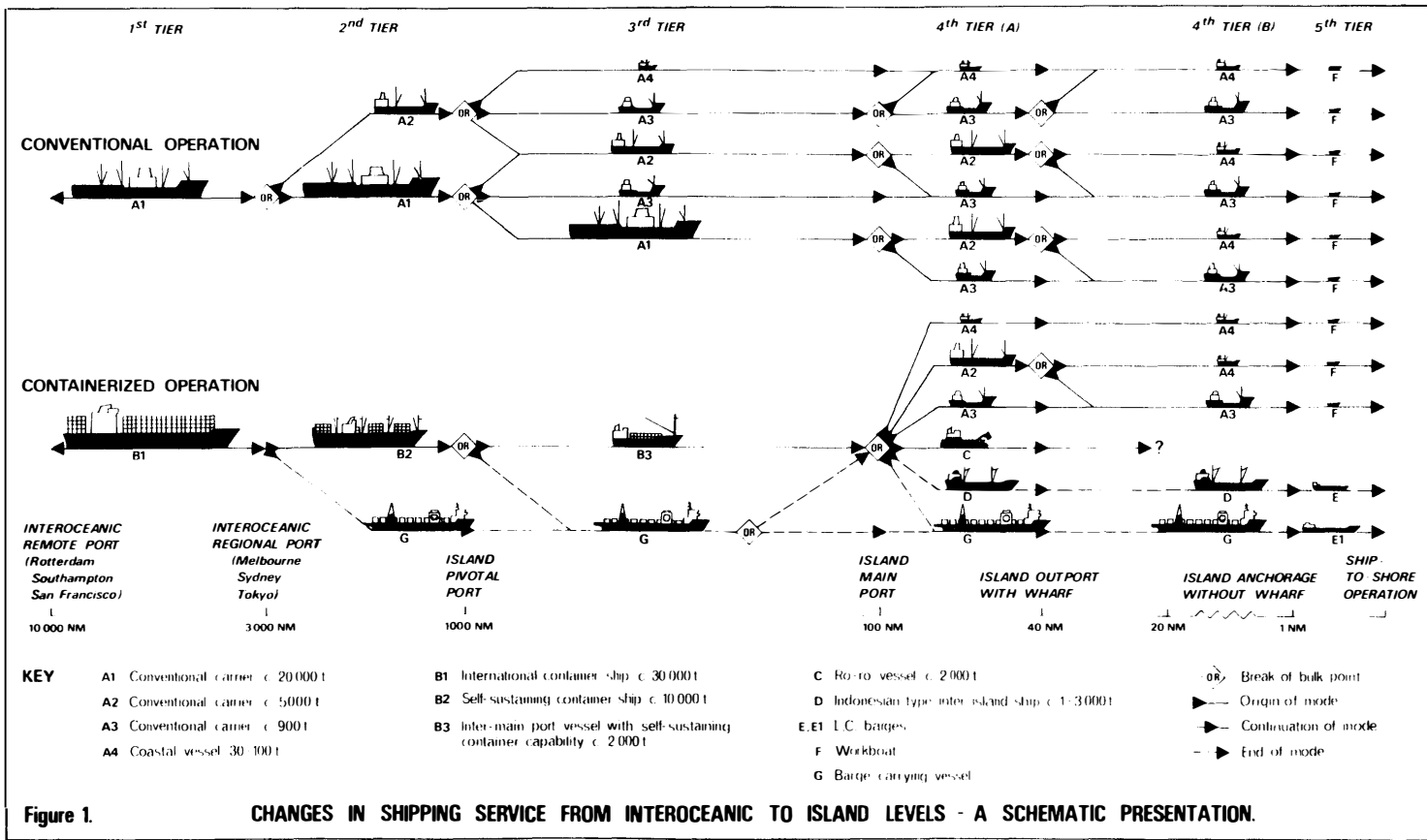
Twenty years ago the international trade of the Third World was still carried mainly in conventional cargo and cargo-passenger vessels operating multi-port itineraries at a leisurely pace, supplemented on the main routes by specialized fast passenger vessels calling at few ports. Bulk carriers were limited mainly to oil and some minerals, and most ships were unspecialized, built on the shelterdeck plus tween-deck principle, with small hatches requiring time-consuming and labour-intensive loading, stowing and unloading. More modern vessels mostly had some chilled and frozen space, but there were comparatively few wholly-specialized freezer ships. The practice of multi-port operation meant that much inter-main-port traffic, and even some outport traffic could be carried on international services which, typically, spent more of each voyage in port than at sea. It was above all the need to reduce port time, and to find more capital-intensive means of cargo handling, which spurred a revolution that is still far from complete. The need to reduce port-time was, however, much greater in the ports of the developed countries; it was imposed at an unnecessary speed on the traffic of developing countries.

Some of the changes were of almost universal benefit. Structural improvements made possible wider hull design and much larger hatches, reducing or eliminating the need for lateral handling of cargo below decks. This latter change, however, increased delays due to rain, despite great improvements in derrick design which, coupled with wider hulls and greater stability, permitted much heavier loads to be lifted over the side, and the rate of cargo-handling to be

increased. The introduction of unitization, especially in the form of pallets which could be handled by forklift trucks, was therefore quickly followed by the development of side-loading gates (ports) permitting cargo handling to continue in rain, and greatly facilitating both stowage and ship-to-wharf handling. The value of this system was quickly demonstrated in the Pacific; little in the way of costly infrastructure was required, and it is regrettable that innovation could not have been confined to this level for a longer period. Even these methods, however, required wharves; operation with lighters became less feasible. Whereas with conventional ships cargo-handling with lighters could be almost as rapid – or as slow – as wharfside handling, wharves now became necessary to use the new technology, and a great spurt in wharf-building followed in the main ports of all developing countries.

Containerization. The development of the container, and of the cellular-container vessel, had a far greater impact on shipping as a whole and on the design of ports than any other innovation. With greater economy of handling and trans-shipment, and the possibility of direct inter-connexion with road and rail systems, the unmodified conventional vessel was quickly driven out of an increasingly wide range of trades, so that in a growing proportion of the major world ports container ships now represent a high proportion of all vessels entering. At major container terminals the containers are lifted in and out of the ship by shore-based gantries, and there is now a large group of ships which operate only between such places, and which carry no lifting gear of their own. The simultaneous development of heavy-lift gear aboard ships, however, made possible the self-sustaining container ship capable of handling its own containers over the side, whether by gantries or by cranes. Other vessels use the ro-ro (roll-on/roll-off) loading principle, which has undergone enormous development since its introduction on the high seas at the end of the 1950s; containers and other unit loads are driven aboard and stowed, and discharged by the same method. As of the present time, however, utilization of space in ro-ro ships is rather poor.

For some years containerization reached only a few pivotal ports in the third world, and none in the small-island regions. In the 1970s, however, the sudden collapse of the great ship-building boom was accompanied by an oversupply of tonnage, especially conventional ships and tankers,



but also container ships. Rising labour costs and vessel costs in this situation led to fierce competition among the operators. This in turn created strong pressure to employ containerization at a greater number of ports. At the same time other specialized vessels proliferated, carrying cargoes in bulk, non-containerizable heavy-lift cargoes, and so on. Loading by ro-ro extended into a wider range of fields with the development of quarter ramps, and latterly slewing ramps and bridging ramps to overcome the tidal-range problem, and enable this type of ship to operate at any wharf capable of bearing the axle load of heavy vehicles.

All this change was geared to the steeply-rising costs of manhandling cargo by conventional methods in the ports of the advanced countries, and also to escalating fixed costs in operating the ships themselves. Containerization greatly reduces port time; it meshes with development of containerization in overland transport, taking advantage of the new system of highways with their greater vehicle capacity; door-to-door delivery of an increasing range of cargoes is possible, including refrigerated cargoes in refrigerated containers which threaten the business even of the specialized freezer ship.

Internationally, something like a two-tiered network has developed around containerization, as illustrated diagrammatically on the left-hand side of Fig. 1. The first tier comprises the links between the major interocean ports equipped with shore gantries and backed by large container parks, with facility for direct transfer on to road vehicles or rail. The majority of such ports are in the developed countries, but several of the major ports in developing countries are now equipped to handle interocean traffic, and these include an important cluster in Southeast Asia — Hong Kong, Pusan, Singapore, Port Kelang, Tanjung Priok and most recently Manila. Beyond these interocean ports is a second tier of wholly containerized feeder services operating to ports without shore-based lifting gear, and served by vessels with heavy-lift gear (or in some cases ro-ro) to handle their own containers (self-sustaining container ships). It is necessary that these places have wharves capable of bearing heavy axle-loads and the burden of stacked containers, without which serious damage is likely to be sustained.¹

¹The damage done to the Kings Wharf in Suva, precipitating a major reconstruction program estimated at \$Fiji 2.7 million, is a case in point.

This latter area, the second tier of feeder container services, is currently undergoing rapid expansion into a growing number of Third World ports, many of which lack the space to handle containers ashore, so that narrow roads become congested with traffic of a kind which far exceeds their capacity. In some West Indian port-towns, for example, trailers carrying containers block streets and alley-ways, and dig holes into soft bitumen while they await reallocation in a cargo-management system wholly unadapted to their use. The reasons for this expansion come principally from the shipping side for most developing country exports are shipped on a f.o.b. (free on board) basis, while their imports are shipped on a c.i.f. (cost, insurance and freight) basis, so that the choice of mode lies in both instances outside the developing countries. Self-sustaining container ships are now being built in a very wide range of sizes, down to as small as 1500 GRT, enabling container traffic to enter quite small ports with only limited berthing space. Although the larger 40-ft containers are not carried into the smaller feeder ports at the end of the second tier, 20-ft containers are used extensively and this remains the most common size employed in international trade. A heavy investment program is necessary in the feeder ports if such units are to be handled efficiently and economically, without creating damage and congestion; the whole management of trade also needs to be modified, often to the serious disadvantage of the small shipper and agent. In most island countries, except those where pivotal ports with a large trans-shipment trade can be developed, the volume of trade does not of itself warrant such massive investment and reorganization. None the less, the change is being forced on the island countries, with consequences that need to be researched much more thoroughly than has been done up to the present time.

Consequences of containerization. In network terms, the actual or potential impact of containerization is expressed in terms of centralization of trade; in socio-economic terms the impact is expressed in the elimination or marginalization of small operators. Even in advanced countries the interocean trade is handled at only a limited number of ports, and more widely there is a strong tendency to replace the multiple-port itineraries of conventional vessels by fast-turn-round services operating to fewer places on a shuttle basis. The effect of these pressures is not simple. Break-bulk operation, where the containers are loaded and unloaded, takes place mainly at the terminal ports of the feeder services in island countries. It may,

however, take place at some distance from the wharf, containers being carried by road either elsewhere in the port-city or elsewhere in the country — often over roads not built for such traffic. Cargo-handling employment may therefore be dispersed, and even increased — though not on the waterfront. For the countries themselves there is a heavy investment burden, discussed above. Countries may even have contributed to their own cost burden by national shipping policies. The case of Papua New Guinea (Costelloe 1979) is a good example. Change was precipitated in the 1960s by government itself, which prohibited the carriage of coastal cargo in overseas ships and at the same time withdrew the very substantial subsidies which had hitherto propped up a conventional operation serving all main ports and quite a range of outports. An inter-main-port coastal fleet of conventional type promptly came into existence, and conventional methods in the overseas trade were increasingly displaced by unitization in the form of palletization, handled by forklift trucks through side ports. A long overdue program of wharf construction became urgently necessary, and was carried out with a measure of foresight so that when — with no warning — the companies in the Australian trade decided in 1976 to shift to full container operation in less than a year, wharves capable of bearing a 10-tonne forklift load were available at the four or five principle ports, though only smaller loads were possible elsewhere and only the new wharf at Port Moresby can bear a 25-tonne load. By 1978 unitized cargo exceeded non-unitized cargo in the overseas trade at Lae, Rabaul, Port Moresby and Wewak, and containers were received at as many as twelve ports. It seemed unlikely that this dispersal would continue for many years, and in anticipation of a greater concentration of overseas trade a container terminal has been constructed with World Bank aid at Port Moresby. Planning has begun for a second terminal at Lae — where a larger volume of container traffic is in fact handled. In anticipation of a massive trans-shipment exercise to come, the core of a new coastal fleet of 1000-3000 grt vessels with some self-sustaining container capacity has been acquired. Ships of this type, however, require full overseas facilities and if they are to be used effectively the majority of wharves in the country will require to be reconstructed. It is not surprising, in these circumstances, that the 'fourth tier' of coastal and island outport services has suffered neglect.

In early anticipation of similar developments in the wider Pacific, an UNCTAD (1972) study recommended the

development of either Suva or Nuku'alofa as a regional trans-shipment port with facilities for multi-purpose ships with ro-ro capability, facilities for the handling of pallets and containers, and the development of a system of feeder services based on one or other of these ports — almost inevitably Suva — to serve the whole island region from the Solomon Islands to the Cooks. The necessity for a phasing out of conventional operation was made clear in a table showing that 81 per cent of voyage costs on the Auckland-Suva run were incurred in port. There was fierce union resistance to the introduction of containerization at Suva, while handling charges escalated from \$4.50/t in 1972 to \$10.25/t in 1976, and the port became badly congested with a single wharf handling even cruise passengers and LPG simultaneously, under a most appalling state of congestion (Loh 1979). After a series of strikes the union was broken in 1977 and the Port Authority took over management. In 1978 stevedoring costs per tonne were \$11 for conventional handling, \$7.40 for full unit loads and only \$5.80 for ro-ro and container cargo. The regional role of Suva has not, however, developed further, and as we shall see below centralization has not yet advanced further in the central Pacific than in Papua New Guinea. Nor has any adequate regional system yet come into existence; the Pacific Forum Line, discussed below, does not yet constitute such a system.

Containerized traffic has now moved into the 'third tier' of the network across a wide area of the Pacific, as also in Papua New Guinea, the Philippines and the Caribbean. In Fiji, a ro-ro service now links Suva with Savusavu on Vanua Levu, connecting the road systems of the two main islands of Fiji. The same has happened in Western Samoa, while in Mauritius a ro-ro service has been established with neighbouring Réunion, though more to receive tourist traffic than in response to cargo-handling needs. Throughout the South Pacific, containerized and palletized services provided by a range of carriers now operate from Sydney, Auckland, Guam and remoter ports to most main Pacific island ports. Under this growing invasion of containerization it becomes a major question of public policy to determine whether break-of-bulk shall take place at the main ports, or whether a further process of centralization extending down to the outports (Fig. 1, 4a) must be accepted, with all its consequences for centralization and public investment. The question is not only one of cargo-handling. Concentration of trade implies concentration of people and marginalization of all those living beyond the range of a system

which cannot, by its very nature, extend to the end of the network.

Present conditions in the island and coastal trades.
According to the views of some specialists the further extension of containerization is inevitable, and so also is the further extension of centralization. For example, Brnicevic (1979) has remarked that:

We have to accept that the three-tiered structure which we can see emerging will be reinforced as the container continues its relentless march into ever more trades and sub-trades.

Others do not take the same view, or at very least doubt it. Thus an editorial in a recent issue of the *Ship and Boat International* (32(1), 1979:1) remarked that:

The 'developing' countries have become conditioned to take advice on shipping problems from Western European experts. The recipients of this advice might question (though quietly, if they want aid) the credentials of the advisers. How has Europe solved her 'inter-island' shipping problems? Do the major developments of the past two decades reflect vigorous belief in waterborne carriage? Or total submission to the conditions set by road transport?

Such integration of sea and road is not new. I myself (in Brookfield and Hart 1971:358) remarked long ago that the transportation system of the Melanesian part of the island Pacific was organized into a set of 'transport-island-regions', each focused on an overseas port in which the major part of waterborne, road and air transport serving the region was based. I went on to predict (p.362) that in the long run only four or five ports (Port Moresby, Lae or Madang, Suva and Noumea) could survive the trend toward centralization and remain independent centres of such 'transport-island-regions'. This may yet prove true, but meanwhile many smaller ports are opening up to containerization, as in the Caribbean. Retention of direct or indirect contact with the overseas system remains a strong force, over-riding cost considerations.

Wherever the limits of the second tier come ultimately to be drawn, a large coastal and island trade, a large population and a wide range of developments will lie beyond it.

It is useful to sub-divide the 'third tier' of international locations for the purpose of discussing these problems. A narrower 'third tier' includes all places where facilities exist, or are planned, to handle overseas-type ships at wharves capable of bearing heavy axle-loads, that is all the 'main ports' to which feeder services such as those being developed in Papua New Guinea will operate. Below this a 'fourth tier' is more truly marginalized. It includes places (4A, Fig. 1) where wharves or jetties of light construction at least allow small ships to come alongside, but also a very much larger number of other places with no facilities at all, where ships can only lie at anchor. This 4B level also includes places, which we discuss below, where no main-port-based ships now call at all. Finally, then, there is a 'fifth tier' of ship-to-shore operation, including some quite long voyages up rivers, along coasts, and to remote islands, handled only by ships' workboats and by local craft.

The 'fourth tier' - the 'fourth estate'. Except for the stripping down of containers on deck at some outports, the island main ports of the third tier represent the present limit of penetration of unitized cargo-handling methods and the final break-of-bulk points in the network. They are also the points at which export cargoes are bulked. The vessels operating in the fourth tier beyond these places are of very mixed type, sailing both to outports with wharves or jetties of light construction and often in poor repair, and also to a large number of places at which cargo can only be handled by work-boats and local craft between the ship and the beach. Twenty years ago cargo-passenger vessels operating also in the third and even second tiers still served many places in this class, and even ten years ago a few such vessels were still operating in parts of the Pacific. During the 1960s island core-fleets of smaller cargo-passenger vessels operated under the integrated management of the regional multinational companies which also controlled copra estates and the main wholesale and retail business in large parts of the region. Rising costs have led to the break-up of this element of vertical integration in most Pacific countries, and the cross-subsidization which it permitted. Vessels have passed from hand to hand, and many are now very aged and costly both to operate and maintain. There is also a larger number of very small vessels, many of which are wooden-hulled, and some of which are even unsafe. Such vessels continue to provide the only service to very many small places. Numerically, most of the

Indonesian and Filipino fleets are of this type, divided into a small 'formal' group consisting mainly of steel-hulled vessels and operated by registered companies, and a much larger 'informal' group, mainly using wooden-hulled vessels and operated by individuals, small groups, and captain-owners. In Pacific island countries an even higher proportion of the total fleet consists of small ships, mostly smaller than 100 dwt, almost all second-hand and for the most part fully depreciated. While there are some efficient operators among them, the fleets suffer from high maintenance costs, small capacity, over-crewing due to the need to carry extra seamen to work as stevedores, inefficient cargo-handling systems and a distressingly high casualty rate. The condition of the fourth-tier fleets has been described many times, and will not be detailed again here. It is, however, remarkable that these fleets were scarcely mentioned at the Singapore conference on inter-island shipping held in June 1979. The arguments concerning the best type of ship and cargo-handling system centred on larger vessels serving only places with port facilities, that is down to the third tier. Even the island delegates regarded the fourth-tier services as a 'problem' if they mentioned them at all, and then left them at that.

A problem indeed they are. Whereas all but the industrializing Asian-Pacific countries could have managed very well without the new international shipping and cargo-handling technology during the 1960s and 1970s, all these island countries experienced serious and growing problems with ageing and increasingly uneconomic fleets which continued to provide the only service to outlying islands. As operating costs mounted during the 1970s the formal sector, especially those companies with other interests into which they could shift their activities, tended to drop out of the business except in Papua New Guinea. Island-country governments, mainly from necessity rather than conviction, have had to accept increasing involvement, taking over the operation of some services rejected by the private sector as uneconomic, and more generally providing a range of visible and concealed subsidies through freight-rate support, and the more active provision of such facilities as wharves and jetties at the principal island and coastal landings. Generally, however, it has also become the practice to control internal freight rates in order to minimize the rapid deterioration in terms of trade between centre and periphery, and adjustments have not kept pace with rising costs.

Curiously, perhaps, the fourth-tier operators have continued to be discriminated against in the allocation of facilities at the main ports, thus increasing their turn-round time through congestion, and adding to their costs. A general set of policies in the matter of user-charge for public investments has also been biased against shipping — at all levels. In Papua New Guinea it has been estimated that the recovery rate for government road and air transport costs is well below 20 per cent, while for maritime transport it is close to 70 per cent (Cooke 1978, cited in Ward *et al.* 1979:163). This is not unusual. Ship operators have attempted to deal with the problem of rising costs by reducing service, cutting out some loss-making ports of call altogether. In the Lomaiviti and Lau islands of eastern Fiji, where almost all voyages collect copra for the Suva grading station, the number of visits to islands in a year declined from 908 to 713 between 1969 and 1974, while the mean copra load per voyage increased from 11.5 to 14.6 tonnes (UNESCO/UNFPA Project 1977, based on table at p.262). But on the most generous estimates this would show an efficiency of ship use, inward and outward, poorer than ten cargo tons (ct) per deadweight ton (dwt) per annum; Indonesia hopes to achieve a rate of 23 ct/dwt/yr by 1984, and the present rate is around 15 ct/dwt/yr for the core fleet (Umar 1979). In some outlying parts of Papua New Guinea, the situation is much worse than it is in Fiji. The old-fashioned island shipping business is very charming; to the office-tired visitor it is a delightful relaxation to go ashore with a workboat, help to push it over the reef and shallows, and spend more than two hours away from the ship on each trip to the shore, as sometime happens. But even the quasi-informal sector cannot indefinitely survive a situation in which costs are rising much faster than returns.

The effect on the islanders themselves can be catastrophic. If service is withdrawn, or becomes so infrequent as effectively to be withdrawn, islanders can obtain supplies and sell copra with which to pay for them only by chartering a cutter or launch at their own expense. Some islanders in northern Fiji now do this regularly; it costs them from \$40 to \$60 per tonne of copra carried, and the price they receive at an outlying grading station is already from \$20 to \$30 below the price payable in Suva. To these trade-dependent people, loss of transport service means a serious decline in welfare, loss of contact with relatives who have emigrated and now live elsewhere, and a greater degree of isolation than they or their ancestors have hitherto known.

Governments, and some private operators also, have introduced new tonnage into the fourth-tier operation in recent years in response to this deteriorating situation. Governments' own ships, intended for official duty and medical emergency, have been used increasingly in an 'informal' commercial role, and some formal government-operated services have been introduced. In Fiji, the whole service to southern Lau has recently been taken over in this way, and there have been some important new introductions in Papua New Guinea, where also the government 'trawlers' are highly important in maintaining service to the people of some outlying areas.

Though many of these newer vessels are of conventional type, a more significant development has been the increasingly widespread introduction of landing craft, mostly of open type, but including some vessels partly decked in to protect dry cargo; a few of the newer conventional vessels have bow doors and ramps. Barges towed by tugs have also been introduced along routes linking certain places with wharves. While there remains a place for mixed passenger and cargo-handling in this new introduction, problems arise from the carriage of inflammable cargoes on ships that also take passengers. There seems little scope for the introduction of pure passenger vessels, and some failures are recorded in this area. With the principal exception of Papua New Guinea, therefore, there seems to be an increasing trend toward a modal split, as in many other parts of the world.

The modal split question. In terms of policy, island governments seem to be ruled by an imported belief that conventional operations at any scale are doomed, and that nothing but an extension of the dominant new technology is possible for outer-island and remote-coastal services. This means pure-cargo operation based on rapid turn-round and more efficient use of ships. So far as is possible, therefore, Pacific island governments (though not those of Papua New Guinea and Southeast Asia) have pressed forward with the provision of wharves at major islands for cargo-handling, and with the extension of air services for passengers. Considerable foreign aid has been obtained, and more sought, for the construction of airstrips on the outer islands of Fiji, for example (Aplin and Wall 1979), and in Kiribati a 1975 survey cited by Ward *et al.* (1979:164) recommended segregation of passenger traffic between islands by air from cargo traffic by sea. It has been argued (Aplin and Wall 1979) that the small difference between the cabin fare by

sea and the air fare on many routes justifies such separation of traffic, though the deck fare is unarguably lower. Moreover, a reduction in the level of government subsidy, direct and indirect, to air traffic, would greatly widen this gap. There is a further problem, pointed out in a memorandum from the Gulf Province concerning the Papua New Guinea transport survey (D. Seiler, pers. comm.):

With the steep increases in air fares and air freight, it is likely that more people will be making use of sea travel to Port Moresby as the average villager who undertakes such a trip usually takes with him many kilos of betelnut, sago or other saleable crops. Many also travel as family groups to visit friends and relations.

This is true of personal travel in all parts of the Pacific, and it is a consideration that should not be neglected. Air services are certainly justified where an economic payload can be provided sufficiently frequently to sustain regular service, but elsewhere other considerations should have greater force. To deprive shipping of its passenger trade removes a profitable use of ship space, and moreover a 'cargo' which quickly loads and unloads itself. Provision of uneconomic air service may merely increase the diseconomies of shipping, making the latter even less frequent and bringing about further decline in a level of welfare which relies on shipping for imports. Emergency air service is certainly desirable, and there is a special justification in the case of really remote islands for provision of airstrips; elsewhere, however, emergency air service could be provided by helicopters or float-amphibious planes, based on islands with fresh water to de-salt the floats. A distinction needs to be drawn between emergency service and government use on the one hand, and a full inter-modal split on the other. In large parts of the Pacific the latter is, in my view, neither justifiable nor even desirable. As an UNCTAD (1978) group insisted, there continues to be a necessary role for passenger transport by sea in developing island countries.

Re-shaping the sea roads

Consequences of the further spread of containerization. Since 1975 the proportion of traffic handled by containers has greatly increased in all Pacific ports, the trade most strongly affected being that with Australia, although the

British Bank Line has also become increasingly containerized. The Asian traffic still lags, but increased containerization seems inevitable, and by the late 1980s it must be expected that most cargo entering and leaving Pacific main ports, other than bulk cargoes, will be handled in containers. Some exports are already handled in containers, and pressure to containerize export cargoes which might more economically be handled in bulk is likely to increase.

Especially in Papua New Guinea, there has been very substantial penetration of the coastal trade by containers, associated with a major re-equipment of the main coastal fleet which followed company reorganization and a bankruptcy in 1978. Twenty-foot containers are now loaded on coastal vessels for shipment to minor ports, where their handling presents major difficulties; often they are stripped down aboard ship, as noted above. The use of containers involves some major enforced restructuring in the operation of both import and export trades, but no studies have been made of their effects. As some exports are vulnerable to cost increases, owing to competition from substitutes, the want of information is unfortunate in a fast-changing situation.

It is important to examine the possibilities for further extension of containerization into the island network, and their implication. In the ports themselves we have already noted the need for heavy investment in stronger wharves, but this is by no means all. There is also need for better access roads, for large hard-standing areas in which stacked containers may be parked, and, perhaps most seriously, extensive road reconstruction in the approaches, which in most Pacific ports include urban areas. Major displacement of other activities may be required from central areas of the port-towns, as it is in Suva in consequence of the decision to handle container traffic over the existing King's Wharf.²

The further extension of containerization down into the lower tiers of the network may have still more far-reaching consequences. Development of a new 10 x 8 x 8 ft container, half the size of the commonly-used 20 ft module,

²When the full cost of this decision, including wharf restructuring, displacement of other activities from the crowded area behind the port, and road reconstruction still to come, are added together, it seems possible that the cost of using the centrally-located King's Wharf in this way may even exceed that of the purpose-built new terminal in Port Moresby.

makes this development more probable, and also more possible. Containers are already carried to the outports on smaller ships, and even in landing craft, with the advantage of through bills of lading for unbroken cargo. If such containers have to be stripped down aboard ship before landing the cargo, this offers little advantage in reduction of port-time or labour use by comparison with former methods, and the principal gain is a larger measure of security, especially with the liquor trade. There is therefore likely to be pressure to reconstruct even minor wharves and jetties, and to provide coral hards at beach landings, so that containers may be handled fully laden by derrick, or by forklift truck.

In Southeast Asia, a study by Molenaar (1979:8) suggested that:

Container shipping handling costs in developing regions compare far less favourably with the costs of man-handling the cargo, whilst the need to retain staffing and shipping operations in the ports is the rule rather than the exception. These facts cause the balance to swing and condemn full container services as a solution from the pure transport cost point of view ... Container handling costs, which now add up to \$12-14 per cargo ton would have to be halved to make this type of intra-regional service a profitable alternative.

Molenaar's views did not command widespread acceptance in the Singapore meeting where they were presented, and it was alternatively pointed out by a delegate from the Philippines, where three companies have embarked on third-tier container services within the archipelago since 1975, that (Cardenas 1979:4):

It takes about one-tenth less time to load and unload the container vessel than it takes to load and unload the same volume of cargo from a break-bulk vessel. Furthermore, it takes less people to do the job. Additionally, the stevedoring arrastre firms do not have their own equipment. It is usually the shipping companies themselves who provide the forklifts, cranes, etc.

The advantages of containerization lie in reduced labour costs, faster turn-around in port, reduction of documentation and greater security. These are advantages for the shipper

and shipowner, rather than for the people who depend on the ships for service and employment. None the less, they may reap indirect advantages if the possibility of handling containers brings new investment into shipping and brings about the retirement of obsolete vessels. The problem is that each change leads to concentration of service into fewer places, concentration of investment and the marginalization of larger populations. In Papua New Guinea, where coastal populations are sparse except in the eastern islands, this is not generally seen as a serious problem by the authorities; it is, however, serious in the areas of Papua New Guinea that are adversely affected, and in the island countries of the Pacific to the east.

The new types of ship now being introduced have, however, some advantages. They include simple landing craft, sometimes half decked-in to protect the cargo — uncomfortable and small, but able to reach a considerable range of places without wharves. Larger vessels are also based on the landing-craft principle, but are constructed as conventional vessels, and the best have not only dry cargo space and passenger accommodation, but also freezer space and tanks for liquid cargo in bulk. They can handle cargo over the side, but additionally have bow doors and ramps. For the places which they can reach, vessels of this size in the 200-500 dwt range are among the most flexible of new introductions in island shipping, far more flexible than the conventional fleet of 950-3000 dwt being built for the company that controls the Indonesian core services.

Such introductions are excellent, and much more flexible than small self-sustaining container ships which are also appearing in the island trade. But the question of their mode of use becomes fundamental. If they are used to carry containerized cargo, then to take advantage of this mode they must have rapid turn-around, and to achieve this they must have shore investment — minimally a heavy-load landing ramp — even if they carry their own forklifts. The smallest ports, without skilled management, must also be able to achieve the unloading of containers and their re-loading according to a precise schedule, so that the vessels are not kept waiting. This in turn involves ship-to-shore, and shore-to-farmer communication of an order that is notoriously difficult to achieve. It follows that containerization at the fourth and fifth tiers is unlikely to succeed in the absence of a wide range of other innovations, and that loading and unloading times are not readily going to be

improved in proportion to the needs of the newer and more highly-capitalized equipment. Only if the ships can sail to an absolutely regular schedule, visiting a place say on the same day in each week, or each two weeks, is the necessary co-ordination likely to be achieved. Few inter-island ships anywhere have been able to achieve such punctuality, mainly because of delays in port.

Moreover, the very small places — remote islands and coastal villages — are almost certain to be further marginalized, losing service rather than gaining it. While a policy of concentration might be thought inevitable, its consequences must be faced. People at remote places will have to make their own arrangements for the collection of outward cargo and delivery of inward cargoes to the nearest loading point, using the variety of small craft that few in the business regard as 'part of the transportation system' but which in fact constitute the most important link in the transport system to many villagers. Especially if even small containers come to be employed at the lower levels of the network, the number of people left outside the reach of the system is certain to increase — at least until the marginalized communities lose so many people by migration that their population declines to residual levels.

Beginning at the bottom. It is perhaps more helpful at this stage to stand the problem on its head, and to make a new beginning with the needs of small islands and remote villages. Accepting that only a selection of such places can enjoy direct service, the remainder require a means of delivering small loads of inward export cargo over time to a collection point where it is made ready for shipment, and of collecting outward commodities — consumer goods — after their arrival at the importing point. This means a store at the landing point, or alternatively a barge.

It must be accepted that manned vessels, especially the larger and more capacious manned vessels whether of conventional or landing-craft type, can call at only a limited number of places and can no longer spend days along a coast waiting for cargo, as in former times. Unmanned barges, on the other hand, can be allowed to lie beached or afloat off villages between voyages of a mother ship. They can be unloaded and loaded at leisure under the control, perhaps of a co-operative society, and delivered and collected on a regular schedule without delay due to cargo handling.

Such 'fifth tier' vessels require no shore facilities, and this is the essential value of this mode of transport. Larger places without wharves or with only ramps can be served by new landing-craft-type vessels (LCTV) as described above, but even at these places bulk cargoes might better be assembled in a barge rather than palletized or containerized, and handled to or from the shore over the bow ramp. LCTVs are particularly suited to the handling of mixed cargo and passengers, vehicles and livestock, packaged cargo that can be palletized — and small containers. They would require to carry their own cargo-handling equipment for speedy operation.

The idea that barge systems are the solution to the transport problems of remote places is not new, but the principal problem has always been the difficulty of operating tug-and-barge systems over long sea distances and among navigational hazards, such as coral reefs. Tug-and-barge systems have been employed on mainline inter-island services in Fiji and Hawaii for many years, but have been rejected in other areas. Some attempts at rafting timber with tugs have been disastrous in the open waters of the South Pacific, notwithstanding their long-standing use in sheltered water in North America and elsewhere. Particular interest therefore attaches to the use of barge-carrying vessels (BCVs) that have evolved following the introduction of the LASH system by the American Lykes Line in the 1960s.

The advantage of BCVs is the possibility that they still offer for integration of the lower and middle tiers of the system, with the possibility even of operation to full interocean terminals once such become established in the Pacific region. In a Danish system developed initially to transport canal-type barges between the Rhine and Humber systems across the North Sea, and driven from this trade by British trade unions in 1975, the sort of flexibility required for the Pacific island trade seems to be evolving as the range of designs becomes wider (Drøhse 1979; Frederikshavn Vaerft A/S n.d.; P. Holst Sørensen, pers. comm.). The initial vessel, of only 2300 dwt, is a catamaran joined forward by a conventional bow, and with a barge-carrying rack in place of a shelter-deck. Barges enter the 'tunnel' between the hulls from the stern, and are hoisted by a hydraulic lift on to the deck, then trolled into storage position. Three or more other barges remain afloat in the tunnel throughout the voyage. The barges are loaded and unloaded fully laden, and the high proportion of sea time

thus obtained gives the carrier a most unusual order of efficiency measured in ct/dwt/yr. Levels over 250 tonnes were claimed - 25 times the efficiency of the present inter-island fleet in Fiji. Later versions of this design have departed considerably from the original principle. One vessel of 22,000 dwt hoists its barges by means of an overhead crane, which can also be slewed over the side of the ship to lift containers, so that the whole deck cargo can in fact consist of containers, barges being retained only in the tunnel. Another, developed for the trade into rivers on the East African coast, is of greater interest in the present context; it is the type used for illustration at the bottom of Fig. 1. This ship, of 5000-6000 dwt depending on loading, stacks small barges two deep all along the deck, lifting them by a travelling gantry crane which lowers them at the stern. The tunnel principle is abandoned, and in its place is a dry-cargo hold, accessible through a forward hatch. This hold can alternatively be a ballast tank, permitting the ship to be submerged to below deck so that larger barges can be floated on and off. It is of more interest in the present context, however, to note that with even so large a load, the draught of the carrier is only 4.5m.

This barge-aboard-catamaran (BACAT) system has not yet come fully to grips with the problem of very small and mixed unit loads, but the range of barges able to be carried in the tunnel (in all newer ships a dock closed below and at the stern, as well as forward) includes landing-craft barges of 210, 460 and 750 dwt - the range we are here discussing as basic LCTV vessels for the outer island trade. The dumb barges stacked on deck are not designed to operate independently, so a push unit is also carried aboard. With a modification of design they could, however, be operated with powerful outboard motors and navigated over short distances, or be towed by an LCTV. A possible mix for the island trade, based on the East African ship, would include barges stacked on deck, with a short tunnel-dock in which LCTVs could be locked, loading and unloading over their bow ramps into a dry storage hold in the forward part of the ship. In this way the carrier could act as 'mother ship' not only to its barges, but also to LCTVs sailing greater distances away from the line of travel of the ship.

The BACAT principle involves from three to six times the number of barges than can be carried aboard, leaving the barges to be loaded on one voyage and picking them up

on another. The original vessel now operates in this way out of Bombay to the Persian Gulf and sometimes around the coast of India; its barges avoid shipping delays in the Gulf, so that on occasion goods have even been trans-shipped into them from vessels waiting weeks for a berth. The carrier is rarely in port, and the loading and unloading of its whole suite of barges occupies only a few hours; the dropping and loading of individual barges takes a much shorter time.

This seems to be the sort of integration required for service at the fifth tier. Such a vessel might operate along a line route through, say, the Solomons and New Hebrides, dropping and picking up barges at a number of points en route, and using small satellite LCTVs both to tow the barges to places close to their mooring, and to serve the more important outports. Larger LCTVs would operate independent voyages to islands further removed from the path of the carrier. Limitations arise in two areas. There would require to be a sufficiently large volume of cargo along the route to keep the vessel and its satellite fleet occupied, and the points of halt to drop and load barges could not be too frequent without causing undue delay to the vessel, nullifying its advantages of a very high proportion of sailing time to 'port' time. However, containers could also be carried on deck between main ports. Palletized and bulk liquid cargo could be carried below, as well as small containers. The LCTVs could load and unload within the ship itself, thus obviating the need to return to main ports, and increasing their own efficiency of operation. Passengers could be carried, for little use is made of the side hulls which mainly provide buoyancy; the East African vessel has provision for a small number of deck passengers. Such a vessel, with barges modified to suit the mixed nature of small unit loads required in the trade, and supplied with the means of propulsion to and from the anchorage or beach, could provide about the maximum possible flexibility, integrating the fifth tier with the fourth and third, and operating even to a main interocean terminal if and when one or more are ultimately created in the area. It is doubtful, however, if the sort of flexibility required can be combined in a BACAT smaller than 4000 dwt, and, even combining some inter-main-port trade with outer island trade, this is a large vessel for high utilization in the really small-island areas of the Pacific. There is also the problem that vessels would have to operate both nationally and internationally in the one voyage if full economic use is to be

made of the capabilities of the system. Multinational company ships did this in the past, and logically the Pacific Forum Line and the other island companies should be able to do it today, but Pacific island governments have grown very autarkic, and inter-governmental co-operation seems harder to achieve than co-operation with the multinationals. The dismal history of Air Pacific, the 'regional air line' which is little more now than the flag carrier of Fiji, offers an unedifying example (Kissling 1980).

A multi-modal solution for the island trade? It will be useful to summarize at this stage. Containerization is now firmly established at island main ports, and nothing is going to undo this. An attempt by an American line to introduce LASH vessels through Papua New Guinea ports on an international run between USA and Australia was withdrawn after some three years' operation in the mid-1970s. It does not, however, seem that there are great advantages in the further extension of containerization down the network in terms of island development and welfare, and it is socially as well as economically important that solutions be adopted which will reduce the further process of centralization. It is not suggested that such a policy can or even should be combined with making the whole island transport business pay for itself, but it is suggested that a least-cost solution should be sought, consistent with the welfare objective of maintaining outer-island services. In view of the large investment in ports required by any alternative, it is suggested that a solution based on investment at sea rather than ashore is likely to offer greater flexibility in operation, and greater social returns. Moreover, it could even be less costly in the long term.

The BACAT system is stressed because, with further development, it could combine the ability to carry containers between main ports and barges to serve outlying places, and also support LCTVs which can voyage independently. It is suggested also that this might be a particularly good solution for the Melanesian region, from eastern Papua New Guinea to northeastern Fiji, where there is a fair density of populous and developed islands, so aligned that island service can be provided alongside inter-main-port traffic. The inter-main-port traffic itself would probably also demand additional vessels combining container and bulk-cargo capacity only, not serving intermediate points; vessels of the type now coming into operation in Papua New Guinea would seem well suited to this purpose.

The passenger element is also an important consideration. Given the higher density of traffic, it is possible to carry most inter-main-port passenger trade economically by air, but the cost of providing air service to small places will most certainly escalate on a per-passenger basis. The BACAT type vessels could carry intermediate passenger traffic in much greater travelling comfort than is available on the present fleet of small ships; it is not expected that much inter-main-port passenger traffic would be carried. The use of barges for ship-to-shore passenger transport would require attention to barge design, but both large and small LCTVs would be designed to include passenger space and accommodation.

Outside the Melanesian region the density of islands and population is far lower, and except on the Kiribati-Tuvalu chain, the distribution of islands is not generally such as to lend itself to linear voyaging. Given the highly dispersed nature of population and development in the Polynesian and Micronesian regions the BACAT system as described above seems an unnecessarily large 'hammer' with which to deal with a set of very small nails. A triangular Fiji-Nauru-Honiara service via Rotuma, Tuvalu and Kiribati might be feasible on the lines suggested above, but anything resembling full loadings are unlikely. Possibly a modification of a ro-ro design, allowing sea-going LCTVs to load and unload directly into a vessel carrying containers, palletized and freezer cargo, bulk liquid cargo and passengers, but very few, if any, lighter-type barges carried aboard would be more appropriate for the mid-Pacific region. The model here is essentially the 'mother ship' of the tuna fleets, except that transfer would require to be made at ports with shelter, and optimally where cargo could simultaneously be handled over the side, or by forklift truck on to a wharf.

Certain common elements are emerging. In a sea-based solution to the island shipping problem, the role of a type of vessel which is only now beginning to appear on the scene, the LCTV, is clearly central. A cross between a conventional ship and a landing craft, flexible in internal arrangements, 100 to 500 dwt in range of size, this class of ship is already becoming the basic module for the future. LCTVs would be able to put their bows ashore at many places, and at jetty ramps at many others. With blasting of reef passages, small LCTVs could approach the shore at many more places than today, and with their own loading gear

aboard, could handle cargo quickly; this is the essential requirement of a manned vessel in the modern island trade.

Smaller, shallow-draught barges seem to be the solution for the places which LCTVs cannot reach; towed or driven by outboard motors into shallow or small anchorages, these barges could be unloaded and loaded at leisure. They would additionally supplement the LCTV in bulk trades at busier places.

From this base we come to the need for a type of vessel which can collect and deliver barges and also interface with LCTVs *without the need for shore-based port facilities*, requiring only the secure anchorage of an outport, estuary, bay or lagoon. Such vessels, now emerging out of the LASH ship through the BACAT design into a range suitable for the island trade, would make possible through delivery of goods between beach and pivotal port without break of bulk except on the carrier itself. Ships of this order, incorporating features both of the present BACAT range and the self-sustaining container vessel, could additionally carry containers between main ports, or between main ports and minor ports with wharves, and thus obtain a fuller utilization of space. They would need to have design varied according to the nature of the trade, or alternatively be flexible between the carrying of containers and barges above, and small LCTVs or cargo below. Supplemented by some container/bulk carriers operating between main ports only, they would provide for a complete island fleet without need for investment in costly facilities ashore except at the main ports themselves.

There remains one question of importance. Would such an island fleet interface with overseas container ships at a large number of island main ports, as is the pattern in the break-bulk trade of today, or would the overseas vessels then be able to concentrate at fewer island ports without loss of service to the island countries? In seeking to suggest an answer to this question, it must be reiterated that the large-scale invasion of containerization in the Pacific island region has taken place only since about 1975 and is still far from complete. It is necessary to look forward into the mid- and late-1980s, when it must be expected that containerization on the main international routes, with all its already-observed demands on ports, will be far more complete than today. For this reason, it has already been indicated above that at some stage at least

two fully-equipped container and bulk-cargo terminals will be required within the region. At present the best equipped ports in the region — though they remain light on shore cargo-handling gear — are Papeete and Noumea, and despite their political separation from the rest of the region, the facilities of these ports should not be lost from sight. None the less, it would seem to be in the interests of the countries concerned in the Pacific Forum Line to consider the long-term development of terminals at the two places with the most fully-developed — or largest — hinterlands: Suva and Lae. The former has the disadvantage of lying in a hurricane- and earthquake-prone region, and the latter of earthquakes and also lack of shelter from the southeast.³ For these reasons other sites might be preferable, but the hinterland advantages are likely to prove of deciding importance in the long run. Given the presence of such terminals, and a fleet of the kind described above, through consignment of external cargo would be possible with at most one break of bulk to and from any point in the region, and within the region to and from any point with no break of bulk. These are important desiderata.

Special needs. Within island nations, rather than between nations, there is a number of special needs clearly not catered for in the system outlined above. These needs are concerned with the requirement for frequent service between main islands, and between islands close to the port-cities and the 'mainland'. A system such as is outlined above is geared more to the larger requirements of the

³The problem of hurricanes has to be borne in mind in all planning for island shipping in the Pacific. While larger vessels designed to withstand the 50-year storm in the North Sea should be able to withstand any hurricanes provided there is sufficient sea room, smaller vessels such as LCTVs require harbours-of-refuge which they can reach on not more than 24 hours warning. While this would not avoid the hazard of a small, fast-moving hurricane, the designation and preparation of such harbours would greatly reduce the risk of loss and damage. In eastern Fiji the UNESCO/UNFPA Project (1977) made this recommendation and suggested places, noting that this provision is also important in the establishment of an updated fishing industry in the island regions. The problem of barges is less readily handled, in view of their inability to travel independently, and their wide scatter. Some could be winched ashore and some would survive at anchor, but there would inevitably be losses.

island trade; though regularity would be of major importance, speed would be a secondary consideration and a relatively low frequency of service would have to be accepted in the interest of obtaining adequate load factors on the carrier ships. In general, places served by LCTVs could not expect more than a bi-monthly frequency of service, while places served only by barges would do better than they do now with a regular monthly frequency. This is inadequate where frequent communication is required.

Ro-ro services have already been established between the main roaded islands of Western Samoa and Fiji. Where there is advantage in linking isolated road systems together, such services need to be extended, whether by conventional ro-ro vessel or simply by car-ferry, such as the UNESCO/UNFPA Project (1977) advocated between the roaded island of Taveuni and nearby Vanua Levu, across a sheltered strait.⁴ Such inter-island ro-ro linkages are possible in several areas, especially in the eastern part of Papua New Guinea.

Communication between 'inner islands' and the growing port-cities is a problem with many dimensions. It includes the need for rapid personal movement, together with goods for sale in the urban market; such goods are often perishable. It includes also the need to carry commuting workers, men who — like people on the main islands — retain farms but also have jobs in town. What is needed in this instance — as between Gau and Kadavu with Suva and Fiji, the Morobe coast and Lae in Papua New Guinea, Auki, Tulagi and Honiara in the Solomon Islands — is something approaching a daily service. Both speed and capacity are important. Developments such as hydrofoil and hovercraft offer too many problems for effective use in the islands,⁵ and even apart from these

⁴The larger proposal for a ro-ro service between Suva and Savusavu was also advocated initially by the UNESCO/UNFPA project, in a draft report. It was taken up by another mission and included in their report.

⁵Hydrofoils are vulnerable to weather and require deep draft at rest. Hovercraft might seem to offer the unique advantage of ability to traverse reefs and shallows, but the skirting is liable to damage from coral and even in calm weather large waves breaking on the reefs could disturb their stability. The main problem with such vessels is their use of high technology, inappropriate to a region short of skilled engineers. Moreover, in the case of the hovercraft there are serious drawbacks in the use of a vessel which lacks buoyancy should its propulsion fail.

problems there are few places in the region where traffic density would warrant the use of such energy-intensive craft. There is, however, possibly a place for the semi-submersible catamaran being developed in Japan, which has the major part of its hulls under water, connected by blade-like struts to a platform above water level, and conventionally-powered. The design minimizes bow-wave resistance, and improves performance in light to moderate seas, thus permitting low fuel consumption at speeds up to 18 knots. An 11m prototype carries twenty passengers or equivalent cargo, and draws only 1.56m fully loaded. This is not the only new hull design being developed by a fuel-conscious marine engineering industry, but it seems one possibly adaptable to the needs of short-range island and coastal traffic around the main towns, and also perhaps to medical emergency needs further afield.

The possibilities for sail. It may surprise the reader that nothing has yet been said of the possibilities of sail, given that some 10,000 commercial sailing vessels still remain active in nearby Indonesia. In the Pacific and Indian Ocean regions, however, sail remains important only on the Asian coast and in the Maldives and Seychelles; elsewhere it has virtually disappeared, except in the form of auxiliary sail on some older wooden ships. The high casualty rate has been a factor, and even though sail may again become important in the future, the problems of lack of manoeuvrability in confined waters, inability to go into reverse, and vulnerability to being caught by a change of wind on a lee shore do not seem likely to be eradicated. An improved design of locally-owned shallow draught sailing vessel might be an alternative to the use of barges at remote places, but only as feeder craft to LCTV services. With rising energy costs this is a possibility to be studied. In economic terms, however, improvements in hull design, propulsion and engines offer very considerable scope for economy in motor ships, which can also economize greatly by slow voyaging. Recent studies suggest that even on ocean routes where tacking would absorb little time, sail would not be able to undercut a new generation of slow-voyaging motor ships in terms of freight rates, even at greatly increased marine-fuel prices (A.D. Couper, pers. comm.).

This is not to say that sail should be ignored. There may be scope for auxiliary sail on LCTVs, and close attention should be paid to experiments in automatic sail-handling and sail-trimming, with spars that can be folded away

in port like derricks on motor ships; research and development work is being done in several countries. Meanwhile, however, it is more important to seek a new fleet which will be economical in use of fuel both in design and mode of operation. Toward the end of the century, when marine fuel may be expected to become scarce and very expensive, a sail-using technology might well have emerged in the ocean trades. The Pacific cannot, however, wait this long for its re-equipment.

On 'navaids' and training. In the Pacific, navigational aids are geared mainly to the international trade, being distributed not very generously along the main sea lanes. Even charting is still far from adequate in large areas, and the situation described by Hilder (1961) — who himself found the need to improve many a chart — still holds in many island regions. There are many places where entrances are unmarked, or are marked by something not much better than a tin can on a post. Major improvements in charting and in the construction of navaids are both necessary, and far too few resources are being devoted to this work. Modern remote-sensing technology using water-penetrating sensors could aid greatly, and improvement of developing-country charting would be a very suitable use for such technology.

Whatever the improvements in navaids, however, there remains a need for more intensive training in the traditional methods of navigation. Large ships must be expected to rely increasingly on the new tools of satellite navigation (Hoerber 1978), already capable of resolving a ship's position with a sphere of 30m diameter each few hours, and before long able to offer continuous position-fixing at still higher resolution. The hardware is not expensive, but even so problems of maintenance are likely to make such systems unfeasible for smaller ships and feeder vessels in the region for years to come. Until the lack of radio and radar technicians is overcome, there is no point in entering such a field, and traditional methods of navigation retain all their importance.

The question of training also has much wider implications. Perhaps one of the principal merits of the now obsolescent island fleet has been its value as a magnificent training ground for seamen, 'Heath Robinson' mechanics, and unschooled but skilled inshore navigators. We now enter an era where new types of vessel will use smaller crews,

but will require more highly-skilled crews, even on the LCTVs and among barge-handlers; more than 'on the job' training will be required. Improved officer-training is of major importance in the use of ships which will carry a higher proportion of officers to seamen, and training in management is urgently necessary at all levels. Couper (1978; 1979) has discussed this subject in much greater detail in the Asia-Pacific context.

Conclusion: on determining and acquiring appropriate technology

The discussion essayed in this paper has been qualitative rather than quantitative, inevitably in dealing with a situation that has not been examined adequately from the viewpoint of the needs of people and places served by the island trade, and with a technology that is in part very new and whose application to the island trade has not even been contemplated until very recent years. Though the ship types discussed here combine characteristics of existing vessels, or of vessels now being evolved through the design and experiment stages, the counter-argument to the further spread of containerization down to the village-landing level that has been advanced is not based on any already-existing technological package. It calls rather for the further adaptation of existing technology in two or three different areas in an integrated manner to meet the requirement of integrating the higher and lower tiers of the island trading network. The position adopted that investment should be at sea rather than on land if further centralization and marginalization are to be avoided — or at least ameliorated — had led to search among a particular range of the new technology. Whether the range suggested here, or some other, is the more appropriate calls for close study of needs and possibilities in the actual context of particular trades and areas. Such close study is itself the greatest need at the present time.

In the currently highly-competitive condition of the world's ship-building and marine engineering industries it is not necessary for a developing country, or group of countries, simply to accept whatever technology is determined for them by the shipping industry. Very serious efforts are being made to design 'appropriate' systems wherever a market can be discerned, and what the marine designers most lack is clear statement of the type of system required. The Singapore meeting provided no such guidelines, for the small-scale end

of the business received little notice; nor did a group of experts meeting at Geneva in 1977 (UNCTAD 1978), who failed to reach any firm conclusion on ship type, as on a number of other matters. The argument of this paper is that guidelines can be generated once the basic principles are determined. If the basic principle is integration of as much as possible of the network while minimizing further marginalization of the outlying places, then logic indicates that a sea-based investment strategy becomes necessary and the search is directed to technology serving such a strategy.

It is apparent that the situation cannot remain as it has been in the past, with the island trade relying mainly on second-hand vessels of low capital cost but high operating cost. Containerizing, rising port costs and rising vessel-operating costs have put paid to this solution, and even an informal sector can only survive where the pressures to change cargo-handling systems are not intense, as in the internal trade of Indonesia.⁶ It is perhaps more arguable whether private enterprise is or is not able to design and adopt systems appropriate to the island trade. In at least one Pacific country it is private enterprise that is introducing some of the most suitable outer-island vessels yet designed; elsewhere, however, private enterprise is either going along with containerization, or simply withdrawing altogether from those parts of the trade which offer little or no profit. As for the 'informal sector', it is in the Pacific too weak a base on which to build any new structure; its significance in trading systems is marginal to the whole structure.

It is, then, to the policy-makers of Pacific island countries that this paper must ultimately be addressed. The choice between concentrated and more widely distributed development effort lies largely in their hands. It is for them to decide how far to continue in a hitherto mainly reluctant acceptance of the principle that sea roads in an archipelago fall as much within the field of public responsibility as do motor roads on dry land. It is also for them to decide whether the sea roads should be treated as mere gaps to be bridged in a land-based transport

⁶In the Caribbean, where competition is intense, the decline of schooner traffic has accelerated greatly; the situation in 1971 and 1972, as described by Brookfield (1978), has clearly undergone modification of an order at least as great as has occurred in the Pacific.

system — which is what containerization essentially is — or as natural highways which offer great advantages in flexibility if these advantages are exploited. The future of island development rests largely on the future of its sea transport network. Great changes are taking place, and now is the moment at which to evaluate these changes and their impact, and at which to examine other possible modes of inter-island transport, and their potential. Though much can be expected from external aid, and from private enterprise also given a lead by governments, it is at the policy-making level that the real initiatives are now required.

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Chapter 11

Tourism and economic vulnerability in small Pacific island states: the case of Fiji

Stephen G. Britton

Over the past decade tourism has become a very important component of the development strategies pursued by several South Pacific island states. This trend has been promoted by tourism's assumed reputation as a successful generator of foreign exchange, employment, and by the industry's general stimulatory impact on Gross National Product. It has also been facilitated by the industry's particular set of market characteristics. These include the very rapid growth rates exhibited by tourism over the last twenty years and the increasing share of Third World countries in global tourist industry receipts (Turner 1976: 253; UNCTAD 1973:5-6). In addition, tourist destination countries have found access to foreign tourism capital relatively easy because of the industry's assumed growth potential. Expansion is also enhanced by the relative absence of international restrictions on tourist flows.

The purpose of this paper is to draw attention to several important aspects of the tourist industry which affect its contribution to development. The intention is not to cover the purely economic costs and benefits of tourism. These have been covered in some detail elsewhere (e.g. Britton 1979:9-38, 387-440; Bryden 1973; IUOTO 1976; UNCTAD 1973). The focus here is on the internal organization of the industry, on the structural characteristics of small Third World economies and the repercussions of both these sets of factors on resulting distribution patterns that accompany tourism. Based on the case study of Fiji, discussion is centred on the political and commercial consequences of promoting tourism in neo-colonial 'open' island economies. Such issues are not normally investigated by Pacific Island planners. Yet adequate consideration of these processes is vital when evaluating the extent

to which tourism can be considered a viable means of achieving certain development goals: particularly those of genuine independence in economic and political decision-making.

The structure of peripheral island economies

Almost without exception the fundamental characteristics of island economies have been determined by the intervention of colonial powers over the last one hundred years. Briefly, the consequence of this historical process has been the creation within the islands of foreign dominated, externally oriented, capitalistic sectors which have been selectively articulated with pre-existing local economic and political systems. The specific form that this process took in each island state was largely determined by the type of metropolitan capital involved. Pacific Island economies, for example, were profoundly restructured by: the Colonial Sugar Refining Company's (Australia) sugar plantations in Fiji; Lever's Pacific Plantations Ltd (U.K.) copra plantations in the Solomon Islands; Société de Nickel's (France) mining operations in New Caledonia, and the Deutsche Handels-und Plantagen Gessellschaft der Sudsee Inseln zu Hamburg's (Germany) copra plantations in Papua New Guinea (Brookfield 1972:34-44). The current characteristics of island economies are thus consequent on the extent to which metropolitan capital is invested in these states and the form of capital deployed. The nature of these impacts was also importantly influenced by the form intervention took in relation to technology, colonial settlement and exchange linkages with pre-existing traditional economic systems. Depending on the colonial power in question, and the type of economic linkages formed, island states found the functioning of their key economic sectors, their export and import trades, their political allegiances, and the general structuring of their societies, heavily moulded by external forces (Brookfield 1972). Furthermore, because of the critical importance of foreign capital both within and to island states, the introduction or development of new economic sectors such as tourism have usually occurred through initiatives shown by foreign capital, or through local political and commercial élites dependent upon foreign capital (Britton 1979:88-144).

This complex of political and economic linkages between the metropolitan core and the periphery can be conceptualized as one of 'structural dependency' (Amin 1974;

Obregón 1974): that is, the dependence of Pacific island states, from a position of subordination on foreign trade, capital, technology, aid and decision-making, to achieve national development goals. Because of the inability of local decision-makers to determine key processes vital to national economic wellbeing, and without denying the existence of divergent interests between metropolitan capital and Pacific Island élite interests, one of the principal outcomes of this dependency is development programs which have overwhelmingly facilitated further consolidation of, or reliance on, foreign capital in these islands. In Fiji over 80 per cent of business turnover in 1973 was attributable to foreign companies (Annear 1973:43). Yet the growth sectors of the economy are forestry, tourism and copper mining — all industries reliant on foreign capital and directly tied to the interests of overseas firms. In the absence of concerned government intervention, such a situation is accompanied by an underlying process of economic and social polarization. This polarization is manifest on three scales: between metropolitan and peripheral Pacific states; between dominant (foreign and local élite) capitalist sectors and subordinated or marginal local capitalist and subsistence sectors within peripheral nations; and between dominant (foreign) enterprises within any one industry or sector, and their local, subordinated counterparts (Roxborough 1979; Bienefeld 1975; Davis 1979; Hannerz 1973; Le Brun and Gerry 1975). As a product, and an extension, of metropolitan capital, the international tourist industry acts to extend this development form in those island tourist destinations where it operates.

The structure of international tourism

The distribution of benefits from tourism is determined by the organization and structure of the industry. This structure, reflecting the capitalistic and often monopolistic nature of the enterprises of which it is comprised, directly shapes the industry's linkages with other economic sectors and social groups and determines the differential role that tourist market and tourist destination countries play within the international system. These linkages in turn decide the international and intranational sectoral and class distribution of benefits derived from tourism.

Because of the nature of the tourist industry, specifically its inherent exchange linkages and product

requirements, foreign controlled tourism capital will tend to become dominant in any one peripheral destination. The tourism corporations of Australia, Japan, UK, New Zealand and North America have direct contact, and hence control, over the tourist markets within these countries (IUOTO 1976: 41-6). In addition, these companies, when operating subsidiaries in the Pacific, have the advantages of access to finance capital, marketing agencies and transport corporations with the metropolises, and, by virtue of their capital resources and managerial expertise, have the capacity to provide the leisure environment expected by tourists (IUOTO 1976:36-64, 70-1, 77-8). Furthermore, the 'obvious' market competence of these companies renders them 'natural' recipients of government co-operation and subsidization in the destination country (Hiller 1977). This situation is clearly facilitated by the corresponding inability of small island states to meet the capital requirements, quality of material products, and entrepreneurial expertise that are necessary for the creation of an internationally competitive domestic tourist industry. Therefore, if Pacific island countries participate in the international tourist trade they are, in many ways, obliged to accept a series of commercial practices that typically accompany tourism.

Foreign control of international tourist flows. The fact that metropolitan enterprises have direct contact with tourist markets is the fundamental cause of their dominance. Tourists may not know precisely the type of holiday they desire, nor the places they wish to visit. This puts industry intermediaries, such as travel agencies and tour wholesalers which intervene between the tourist client and destination countries, in a pivotal position (Burkhart and Medlik 1974:213-14). Equally important is the fact that by far the greatest proportion of tourists travelling within and across the Pacific do so by services offered by metropolitan airline and cruise-ship companies (IUOTO 1976:43-5). This situation gives metropolitan tourism corporations a substantial degree of power to influence the volume and direction of tourist flows. Airlines are particularly notable in this context by their capacity to: differentially allocate seating on scheduled flights; offer differential cost concessions to tour companies operating in any one destination; and promote or demote a destination by the selective scheduling of flight frequencies, stopovers, and market advertising (Britton 1979:176-210). The relationship between peripheral tourist destinations and their metropolitan tourist markets in relation to the creation and maintenance of tourist flows

can be one of serious dependence, and hence vulnerability for the destination country.

The spatial structuring of tourist flows. Not all Pacific island countries are successfully incorporated into the international tourist trade, irrespective of whether their governments seek this incorporation. The processes determining this selectivity are largely inherent in the industry itself. A destination must be accessible, it must be politically and socially 'stable', it must have a marketable 'product' and there should exist, or be created, a demand for that destination. Several specifically locational determinants derive from these requirements.

Airlines, travel and tour companies consider metropolitan countries to be the most important markets, and those Pacific islands which straddled the principal flight sectors were most likely to be perceived as new and viable stopover points. However, many of these principal routes were determined by the past (and present) political and economic ties between the metropolises and their ex-colonies. Thus, most of those island states which have become important tourist destinations were those already having extensive commercial linkages with metropolitan economies, and, most importantly, had established infrastructure and communications networks, particularly airports or harbours facilities suitable for cruise ships. More specifically, these states become integrated into the Pacific tourist trade through the activities of trans-Pacific airline and shipping companies and colonial governments seeking to generate returns from their investment in transport infrastructure. With the existence of such transport linkages, foreign tour and hotel companies were encouraged to establish themselves in these countries. From this initial investment, substantial sums were then put into promotion campaigns to advertise the new destinations.

The coalescing of these factors has produced quite distinct tourist flow patterns within the Pacific Basin. Most importantly, the greatest flows are between the metropolises themselves — between Australia and New Zealand, between Australasia and North America, between North America and Southeast Asia¹/Japan and between Australasia and Southeast

¹Southeast Asia countries are not classed as metropolitan countries. It should be remembered, however, that many have dynamic economies and/or sites of substantial foreign

Asia/Japan. Within the Pacific Ocean, Australasian and North American tourists can visit the ex-British colony of Fiji, the ex-New Zealand protectorates of Western Samoa and the Cook Islands, the French colonies of Tahiti, New Caledonia and New Hebrides, the American State of Hawaii, or that country's strategic bases at Guam and American Samoa.

Tourist promotion. Advertising is a critical factor in the creation and maintenance of tourist flows (Medlik and Middleton 1973; Middleton 1979; Schmoll 1977). Initially there are three variables important in determining flows to any one destination: its accessibility (transport linkages), the comparative cost structure of the tourist services offered, and its desirability as a place to visit. This latter factor is largely determined by the unique attractions available for tourist consumption. One of the characteristics of tourism in the South Pacific, however, is that there are a multitude of destinations selling an essentially undifferentiated product. Countries are therefore confronted with the task of creating images of their individuality in the minds of potential tourists.

Although it is agreed that market promotion is vital, effective advertising tends to be undertaken by relatively few components of the industry. By far the most important of these at the international level are metropolitan airline companies and tour wholesaling companies – those tourist industry sectors having direct control over international tourist flows. At the national level, that is within the destination country itself, promotion tends to be undertaken most successfully by those companies able to afford advertising costs and/or those companies which are most astutely managed.

The principal consequences of this situation are two-fold. At the international level, Pacific island tourism promotion is carried out by foreign airlines, travel agents, tour and hotel chain corporations which are deeply committed to encouraging tourism in other destinations where they have (usually) greater investment commitments. For example, by

¹ (continued)

investment. In addition, tourist flows by Australasians to these countries include a large component of tourist flying on to Europe and the UK.

far the biggest share of airline company promotion expenditures are spent advertising the Pacific 'gateway cities' of Vancouver, San Francisco, Los Angeles, Auckland, Sydney and Tokyo. Pacific island stopover destinations are given only second priority. Pacific island states can, therefore, be vulnerable to reduced market promotion efforts by metropolitan tourism companies when such an action is called for by the corporate strategies and demands of these firms.

Within the destination country, it is likely to be larger, often foreign companies which are most successful and persuasive in their advertising programs. Furthermore, because most foreign companies have direct marketing or corporate linkages with the metropolises, they have the additional advantage of having their product known to tourists while they are still undecided about their tour details. The degree to which locally owned tourist companies are unable to match the advertising campaigns of their foreign counterparts is likely to be reflected in their lower competitiveness (Britton 1979:248-50).

The organization of the tourist travel product. The other factor of importance in forming linkages between tourist market and destination countries is the way in which the travel experience is organized by metropolitan tourism corporations into a packaged form. The package tour is the outcome of the industrial process applied to tourism. The concept brings together the tourist's psychological need for 'getting away from it all' and the tourist industry's need to have a product that can be 'standardised ... made repeatable [and] susceptible to the apparatus of modern marketing' (Burkhart and Medlik 1974:187). By being amenable to such processes, the package tour provides a cheap vacation for tourists, and a product that enhances corporate profitability, volume control, and the efficient use of transport and accommodation capacities. More precisely, the package tour allows maximum opportunity for tourism corporations to control and benefit from tourist expenditures.

In combination with the process of vertical integration that is occurring with metropolitan tourism (Britton 1979:40-49; IUOTO 1976:48-55), and the multi-destinational commitments of foreign tourism companies, the use of package tours has three important consequences for Pacific island destinations.

Because peripheral tourist industries have a high reliance on foreign capital and material imports, a relatively high degree of foreign exchange leakage may occur. In Fiji, for example, 53 per cent of hotel purchases, 68 per cent of standard hotel construction and outfitting requirements, and over 95 per cent of tourist shop stock were supplied from imports (Varley 1977:3; Central Planning Office 1977: pers. comm.; Britton 1979:306). As a consequence more than 70 per cent of tourist expenditures are lost to Fiji in the form of import payments and profit repatriation (Central Planning Office 1975:169). These structural limitations imposed upon local retention of tourist industry income are aggravated where the package tour is the predominant mode of tourist travel to a destination. This results in a large percentage of total holiday expenditure being incurred by tourists before they reach their destination. The costs of international airfares, travel agency commissions, bank charges, insurance, hire-car rental, even meals, accommodation and some duty-free shopping are paid for before leaving the metropole. If, as often happens, the tourist purchases a tour oriented around foreign-owned airlines, tour companies and hotels, the host country will have little opportunity to retain income from tourist expenditures. It has been found (ESCAP 1978:40), for instance, that where tour packages consist of a foreign air carrier, but include local hotel and other group services, destination countries receive on average 40-45 per cent of the inclusive tour retail price paid by the tourists in their home country. If both the airline and hotels are owned by foreign companies, a mere 22-25 per cent of the retail tour price will be forwarded to the destination country.

This confinement of tourists (and their expenditures) to an organized, formal travel experience tends to be paralleled by the industry manifesting itself within a peripheral destination as an enclave. Since many tourists are able to enjoy their vacation only from a base of familiarity, they are unlikely to venture outside the formal tourist industry environment provided by packaged tours. In short, the tourist is 'not so much abandoning his accustomed environment for a new one as he is being transposed to foreign soil in an "environmental bubble" of his native culture' (Cohen 1972:166).

This appearance of an industry enclave is greatly accentuated if it is associated with the spatial isolation of tourism plant, as is evident in Tahiti (Robineau 1975:

67-74). In Fiji, 95 per cent of all tourist expenditures occur in the Lautoka-Suva tourist belt on the main island of Viti Levu (Britton 1979:467-77). Whether a result of conscious government policy or not, the separation of the industry from the mainstream of the host society can easily strengthen misconceptions between tourists and indigenes and enforce suspicions held by locals that tourism makes little contribution to national development.

The reduction of the travel experience to relatively standardized products can have the impact of reducing any one tourist destination to a marginal market position. A country's tourist product may easily be substituted by both tourists and metropolitan based tourism corporations for an alternative destination. With foreign companies largely responsible for advertising, the provision of international transport, the wholesaling of globally spread tours and the provision of international hotel chains, a particular tourist destination is unable to evolve sufficient control over traveller flows to its own tourist plant. The generalization can be made that the structure of the tourist industry ensures that Third World destinations have a largely passive and dependent role in the international system. They are the recipients of tourists. They provide the novelty and superficial rationale for an overseas holiday. As stated, metropolitan enterprises directly serve, and partially create, this demand and the means by which tourists can consume the tour packages they purchase. While this dichotomy refers to two poles on a continuum, there are varying degrees of foreign and local participation in any one country and any one industry sector at that destination. This does not negate, however, the contention that the central problem for periphery destinations is the inequitable relationships inherent in this international system. Immobile tourism plant in the periphery relies on foreign corporations to supply tourists to ensure viability. The flow of tourists to these countries is achieved by gaining the co-operation of foreign interests or by national bargaining power over factors affecting the profitability of these foreign interests. Metropolitan tourism corporations can, in the last instance, however, direct tourists to alternative destinations.

It follows from the above discussion that a Pacific island country is not in itself an automatic tourist destination. It only becomes so by advertising, tourist plant investment and transport linkage provision largely undertaken

by metropolitan tourism capital. The generation of tourist flows to a country is thus closely tied to the interrelationships between key sectors of the international tourist industry, as depicted in Fig. 1.

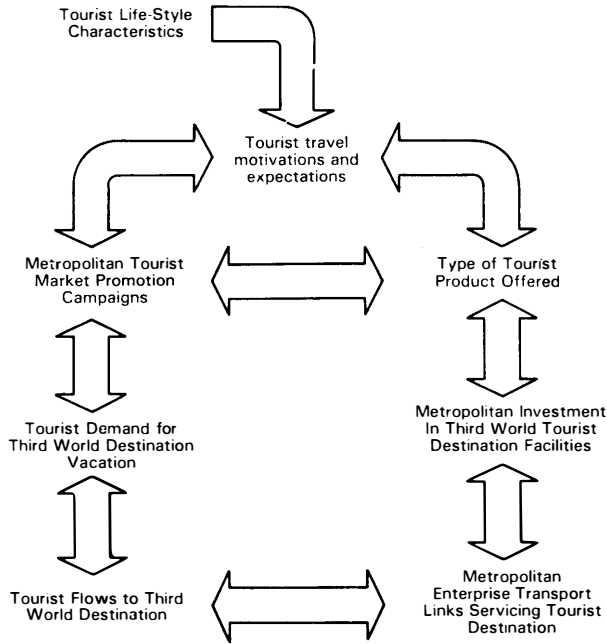


Fig. 1. Tourist Industry Inter-relationships in the generation of tourist flows

Several conclusions can be derived from this discussion of the international tourist trade. First, it must be recognized that metropolitan based enterprises are the key link in directing the way in which a peripheral tourist destination will be articulated within the international system. Marketing strategies, tourist expectations and the type of tourist product created in, say, the Pacific islands, will be largely determined by metropolitan airline, tour and hotel companies.

Second, because of the characteristic lack of local capital and expertise, tourist plant in peripheral countries will most likely be constructed and supplied through foreign tourism companies or their equivalents in other sectors of the economy.

Third, the tourist industry in a peripheral economy will be controlled and owned, primarily by foreign interests and by members of national élites. The overall direction of capital accumulation in the system will be from the petty

capitalist sectors, up to the primary tourism sectors in the periphery, and ultimately to metropolitan tourism and airline corporations. This is due to the lower orders of the tourism hierarchy being integrated in such a way as to render them commercially subordinate to the interests of the sectors above them.

Fourth, most peripheral destinations were previously integrated into the international economy to provide supplies of raw material commodities to the metropole. The encouragement of tourism by governing élites in the countries is likely to be in response to contradictions caused by this selective development of their export enclave dependent economies. Tourism, as a foreign exchange generator, may help alleviate highly restricted income generating capacities and narrow export bases of these economies while, at the same time, continuing to serve dominant economic interests.

Fifth, the expansion into the Third World by metropolitan capitalism was closely associated with the development of transportation networks. The selective regional penetration of metropolitan capital of the periphery, therefore, would lead to selective distribution of transportation linkages in the periphery and vice versa. Since technological revolutions in transport have been the basis of mass tourism, those peripheral economies with appropriate colonial infrastructure networks, or those located on new transport route networks established by metropolitan enterprises, are most likely to be incorporated into the international tourism trade.

Finally, the structure of the tourist industry at the international and destination levels is tending towards monopolistic organization. Control of the key processes within the industry is being concentrated into the hands of metropolitan tourism capital in general and large tourism corporations in each industry sector in particular (IUOTO 1976: 102-3). In the metropolises this concentration is evident for airline, cruise ship, travel and tour corporations. In the periphery, it is most evident for hotel, tour, transport, and tourist goods franchising companies.

While these six hypothesized characteristics may be used to conceptualize how tourism manifests itself in periphery economies generally, in the very small 'micro states' of the Pacific the implications of these processes are substantially more pronounced.

The influence of small size on Pacific island tourism

Unlike other local natural resource based activities, the operations of tourism are not constrained by the small size of island states *per se*. In fact, small size is often promoted as an advantageous attribute in tourist advertising. Essentially, small size influences Pacific island tourism economies in two interrelated ways. The very limited nature of local secondary and tertiary economic sectors means that tourism in these countries is proportionately more dependent on foreign inputs than other peripheral tourist destinations. Similarly, the small size of these states heightens the impact of the neo-colonial structure and metropolitan linkages found in these economies. Smallness is not a problem in itself, but it does become problematical in the sense that it exacerbates the impact of processes inherent in a peripheral capitalist mode of production. Small size, therefore, gives a qualitatively different character to two key issues of underdevelopment:

One is the present nature of the structural dependence of the small underdeveloped economies on international capitalism. The other is the constraints which size and structural dependence together place on the material base of these societies and hence on their material capacity to be transformed (Thomas 1974:30).

Because the tourist economies of small islands have been so dependent initially on external expertise, capital and transport linkages, foreign tourism capital has been able to consolidate its position in these islands to the extent that they now both dominate local tourist enterprises and largely control the commercial practices inherent in the local industry. As a consequence of this situation, and the previous domination by foreign capital in other economic sectors, it has become increasingly difficult to break the cycle of dependence on foreign expertise, foreign capital, and foreign control of tourist plant, international transport, tourist marketing and tourist flows in general. The implementation of Fiji's seventh development plan, for example, relies on nearly 60 per cent of required capital being derived from external sources (Central Planning Office 1975:30).

This does not mean that there are no spin-offs from tourism into the local economy. In fact the flow of wages, government tax and customs duties, and income generated by

self-employed indigenes, may be quite significant, both as a proportion of GNP and, perhaps, 'relative to the surplus needed to satisfy those domestic social classes which benefit from this dependent structure' (Thomas 1974:54). From a total tourist industry turnover of approximately \$80 million in 1977, the Fiji Government derived \$8.5 million, or 11.9 per cent, in the form of taxes and various import duties and customs tariffs (Britton 1979:426-7). In addition, over 9,000 work places were associated directly or indirectly with the tourism sector. This figure represents 13.1 per cent of all wage and salary employees and 6.0 per cent of the total labour force (Britton 1979:411-20; Central Planning Office 1975:169).

However, since foreign capital is so influential in micro states, and because of the insignificance of these tourist destinations relative to others served by metropolitan tourism capital, there is the danger of 'insufficient carry-over by way of the normal economic (and political) processes, to facilitate successful economic transformation ... [away from excessive dependency on foreign capital]' (Thomas 1974:55).

The previous discussion has already indicated the implications of these processes for micro states. Local economies are unable to meet the expertise, capital and material inputs essential to establish a competitive, high quality tourist plant. The political influence of foreign capital is likely to be substantial given the power that accompanies those enterprises wielding considerable market influence and capital resources. As far as the physical manifestation of tourism is concerned, an enclave tourism economy is likely to develop which largely excludes indigenous entrepreneurs from the mainstream of tourist industry activity. One graphic way to illustrate these processes is through a more detailed examination of Fiji's tourism economy.

The case study of Fiji

Prior to the end of the colonial era in 1970, a major structural diversification of the Fiji economy occurred owing to the growth of tourism. After World War II, Fiji became a refuelling point for metropolitan airlines flying on trans-Pacific routes. With the subsequent recognition of its tourism potential, the colony was promoted and

incorporated as a tropical-island holiday package by North American West Coast, Australasian and British tourism interests, particularly the airlines. From 1963 to 1977 gross tourism receipts rose from \$3.6 million to an estimated \$79.8 million. Since 1968, the industry has been responsible, on average, for 31.5 per cent of Fiji's gross export earnings. Tourism has therefore helped the economy overcome one of the most serious adverse structural legacies of the colonial era — dependence on a very narrow range of export commodities. Up until the early 1970s, at least 60 per cent of total export receipts in any one year were from only one source — sugar. As late as 1964, 95.9 per cent of domestic exports and 77.5 per cent of total export receipts were derived from just three commodities: sugar, coconuts and gold. In 1977 these products still accounted for 90.9 per cent of domestic exports and 55 per cent of total exports.

The structure and internal dynamics of Fiji tourism, however, are such that they seriously reduce the net financial advantages the industry brings to the economy. As noted above, a substantial proportion of total tourism receipts were lost to the economy. In fact, tourism was in 1975 the third highest ranking economic sector in the magnitude of its import multiplier (0.61). Only the mining and cement production sectors had greater propensities to import. Similarly, tourism had the second lowest multiplier impact on GNP (0.71) after mining (Varley 1977:17).

Tourism has also had other serious financial consequences for Fiji. Foreign tourism enterprises have tied up substantial sums of scarce local capital (Britton 1979: 420-6). The existence of arguably desirable hotel investment incentives have led to the government forgoing \$14.5 million between 1966 and 1975. Of this sum, 80 per cent of the cash grants and investment allowances accrued to foreign companies. Furthermore, abuse of such incentives resulted in the government gaining very little taxation revenue from the larger hotel companies (Annear 1973:48; Britton 1979:240-2). One other important public cost has been the administrative and infrastructure requirement demands of tourism. Between 1970 and 1977 over \$18.4 million was spent by government on direct tourist industry costs. Another \$33.9 million was spent on infrastructure projects of which tourism was a clear and often dominant beneficiary (Britton 1979:426-35).

Apart from these purely economic issues, however, a consideration of tourism's contribution to development must

include its capacity to promote effective national, political and economic independence. One measurable dimension of this is the degree of local participation in the industry. But as has been implied throughout this paper, it is precisely this dimension of tourism which is least encouraging. The nature and organization of the industry is such as to largely preclude substantial local involvement, especially in small island economies.

With its relatively extensive tourist industry Fiji is the most important tourist destination in the Southwest Pacific. As such, it would be expected that Fiji be subject to the mode of tourism development described in the preceding sections of this paper. One could also argue, however, that because Fiji has a larger, broader based, more complex economy than Tonga, Samoa, the Cook Islands, Tuvalu, the Gilbert Islands, Nauru, Niue and the Solomon Islands, there is likely to be relatively substantial indigenous involvement in tourism. Bearing this in mind, it is instructive to look briefly at the commercial organization of Fiji's tourism economy and the actual extent of local participation.

The substantial influence of foreign companies is manifest most acutely in their control over tourist flows between market and destination countries and within the destinations themselves. In the Fiji context this is readily observable. Five British, Russian or Singaporean companies were responsible for all cruise-ship tours to Fiji.² In the field of international air travel (excluding regional carriers) all flights were in the hands of Air New Zealand, CP Air, Pan American Airlines, Qantas, and UTA; with Air New Zealand and Qantas together responsible for approximately 80 per cent of total Fiji sector seating capacity.

While the extension of this influence within Fiji's ground plant is less pronounced, foreign control is still substantial. Of the specifically tourist oriented accommodation available, 62 per cent of 2096 rooms were owned or managed by foreign companies in 1977. Of this total, 47.3 per cent of rooms were controlled by five international hotel chains.

In the travel agency and tour company sector, foreign companies controlled 67 per cent of retail travel and tour

²P. and O. Lines, Sitmar, Chandris, Dominion Far East Lines and CTC Lines.

wholesaling enterprises, nearly 50 per cent of ground transport operations, and 24 per cent of cruise boat tours. Translated into their capacity to control tourist flows, foreign companies owned 425 or 73.3 per cent of the 580 transport units that are used in Fiji to convey tourists.

Combining the accommodation and travel and tour sectors, it is evident that foreign companies are in a substantially better position to benefit from tourist expenditures than locally owned enterprises. As Table 1 shows, foreign enterprises were responsible for over 65 per cent of all clients served by the 128 companies concerned. It is also significant that of the remaining tourists purchasing services from local companies, the greater proportion dealt with companies not owned by indigenes, but by local European citizens. It can also be seen that Indian

Table 1

Fiji accommodation and travel companies: control of
tourist movements, 1976

(Total number of clients served)

Ownership	Number of enterprises	Percentage of enterprises	Number of clients served	Percentage of clients served
Foreign ^a	48	37.5	632,223	65.1
European	38	29.7	174,733	18.0
Indian	24	18.8	72,807	7.5
Fijian	9	7.0	9,653	1.0
Others ^b	9	7.0	81,628	8.4
Total	128	100.0	971,044 ^c	100.0

^aThis category combines foreign owned companies and expatriate owned family enterprises.

^bIncludes Fiji public companies and Chinese and Polynesian owned enterprises.

^cAny one tourist may be counted several times if he uses the services of more than one accommodation unit, travel agency or tour company.

Source: Field survey, 1977, estimate.

proprietors were far more important than Fijian entrepreneurs. This sub-trend is indicative of the social pattern of commercial participation found throughout the Fiji economy.

Within Fiji's tourist industry as a whole³ (that is including the duty-free and handicraft shopping sectors), it is clear that a significant disparity exists in the monetary benefits from tourism that accrue to the various ownership groups. Table 2 shows the marked polarization that exists between the average gross retail incomes generated by firms from each ownership category. This polarization becomes more striking after making more realistic assumptions regarding the distribution of income generated within the tourist shopping sector.⁴ After such calculations (Table 2 (B5)), it was found (Table 2 (B7)) that foreign and European firms combined had an average turnover of \$721,289. Indian and Fijian enterprises, by comparison, averaged only \$16,289 and, at the two extremes, foreign firms had average turnovers of \$1,244,394 whereas Fijian enterprises averaged \$1,820.

By analysing the aggregate distribution of tourist receipts between ownership categories, it becomes evident how limited the extent of indigenous participation is. Table 3, detailing total incomes accruing to each ownership group from each of the tourism sectors, shows that foreign interests accounted for 65.6 per cent of retail turnover in 1977, while European and Indian enterprises accounted for 14.5 and 15.3 per cent respectively. Fijian enterprises, Fiji public companies, Chinese and Polynesian enterprises generated only 4.6 per cent of total turnover. Furthermore the 65.6 per cent of income earned by foreign interests was generated by only 4.6 per cent of all tourist enterprises. The 4.6 per cent of income earned by Fijians and 'Others', however, was from 50.9 per cent of all enterprises. The fact that Indian and Fijian proprietors controlled 87.2 per cent of tourist enterprises yet received only 16.3 per cent of total income is indicative of the marginal roles the

³This discussion excludes tourist receipts spent outside the tourist industry proper.

⁴That is, by allocating the value of imported duty-free tourist goods stock to foreign companies and calculating per retailing only firm income as gross retail turnover less the landed value of stock (Table 2, column 4).

Table 2

The Fiji tourist industry: average turnover of tourism enterprises
by ownership categories and sectors, 1977

(\$)

Ownership category		Accommodation sector	Travel and tour sector	Handicraft sector	Tourist shopping sector		Retail turnover from all sectors	
		(1)	(2)	(3)	A ^a (4)	B ^b (5)	A ^a (6)	B ^b (7)
Foreign:	no. enterprises	20	12	—	6	6	38	38
	av. turnover	1,040,400	695,833	—	390,500	488,060	829,000	1,244,394
European:	no. enterprises	19	14	5	4	4	42	42
	av. turnover	263,789	346,500	30,800	112,475	112,475	249,214	249,214
Indian:	no. enterprises	17	5	162	140	140	324	324
	av. turnover	207,117	76,300	3,609	158,221	46,472	82,213	33,929
Fijian:	no. enterprises	3	6	385	1	1	395	395
	av. turnover	4,484	11,167	1,628	60,000	12,000	1,942	1,820
Other:	no. enterprises	5	2	16	2	2	25	25
	av. turnover	469,400	70,000	3,342	59,000	11,800	106,320	102,560
Total	no. enterprises	64	39	568	153	153	824	824
	av. turnover	495,625	353,564	2,498	164,183 ^c	65,069 ^c	87,437 ^c	87,437 ^c

^aData represent gross retail turnover of enterprises.

^bCalculated as follows: (i) that income generated by foreign firms includes the landed value of all 'Tourist shopping sector' imported tourist goods and net retail turnover of those firms; (ii) that income shown to accrue to all locally owned tourist shopping sector enterprises represents gross retail turnover less the landed value of tourist goods stock; and (iii) the distribution of importers' mark-ups as appropriate.

^cExcludes income going to government from duty and taxes imposed on tourist 'duty-free' goods.

Source: Field survey, 1977, estimates.

majority of them play within the industry.⁵ The exchange structure of the tourist industry has thus reinforced the socio-economic divisions found throughout Fiji society. The basis for this pattern is that different social groups represent distinct segments of the overall division of labour within the Fiji economy, they vary in their acquisition of knowledge, skills and cultural viewpoints, and they have differential access to administrative agencies, finance networks, transportation and communication systems. The variable availability of these factors for each racial group is directly consequent upon the historical experience and role of each group during the colonial era (Britton 1979: 88-117).

Confining this analysis to Fiji-based tourism enterprises, however, seriously under-represents the importance of foreign companies. Fiji's tourist industry is only one of several tropical island destinations served by metropolitan airlines and tour companies operating in Fiji. These metropolitan interests oversee many essential non-Fiji based aspects of the total travel experience undertaken by Fiji-bound tourists.

Table 4 stresses that the extent of monetary remuneration going to metropolitan companies is commensurate with their commercial control of the industry. It shows that foreign corporations controlling the international transport linkages to Fiji are responsible for the single largest share of Fiji-bound tourist expenditure. Thus \$54.014 million is generated from Fiji tourism over and above that \$79.834 million spent by tourists within Fiji. Combining industry turnover generated both within and external to Fiji, Table 5 shows the pervasive influence of foreign interests through the Fiji tourism economy. Foreign companies in 1977 were estimated to be responsible for 75.8 per cent of total tourist expenditures.

This high divergence between the income retained between foreign and local enterprises and between tourist market countries and Fiji is determined by their respective

⁵It should be noted that by far the greatest number of Fijian and Indian proprietors participate in the tourist industry via the handicraft sector. Of the 324 Indian proprietors, 158 are handicraft vendors. Of the 395 Fijian proprietors, 379 are handicraft vendors.

Table 3

The Fiji tourist industry: distribution of receipts by ownership
categories and sectors, 1977

(\$'000)

Ownership category	Accommodation sector (1)	Travel and tour sector (2)	Handicraft sector (3)	Tourist shopping sector A ^a (4)	sector B ^b (5)	All sectors no. (6)	A ^a % (7)	All sectors no. (7)	B ^b % (7)	Number of enterprises (8)	Percentage of enterprises (9)
Foreign ^c	20,808	8,350	—	2,343	18,128	31,502	43.7	47,287	65.6	38	4.6
European	5,012	4,851	154	450	450	10,467	14.5	10,467	14.5	42	5.1
Indian	3,521	382	585	22,150	6,506	26,637	37.0	10,993	15.3	324	39.3
Fijian	13	67	627	60	12	767	1.1	719	1.0	395	47.9
Other	2,347	140	53	118	24	2,658	3.7	2,564	3.6	25	3.0
Total ^d	31,720	13,789	1,419	25,120 ^e	25,120 ^e	72,048 ^e	100.0	72,048 ^e	100.0	824	100.0

^aData represent gross retail turnover of enterprises.

^bCalculated as follows: (i) that income generated by foreign firms includes the landed value of all 'Tourist shopping sector' imported tourist goods and net retail turnover of those firms; (ii) that income shown to accrue to all locally owned tourist shopping sector enterprises represents gross retail turnover less the landed value of tourist goods stock; and (iii) the distribution of importers' mark-ups as appropriate.

^cIncludes 'expatriate' owned enterprises.

^dTotals do not correspond exactly to subtotals due to rounding of the latter.

^eExcludes income going to government from duty and taxes imposed on tourist 'duty-free' goods.

Source: Field survey, 1977, estimates.

commercial importance. That is, as unequal participants within the international tourism system:

1. They have unequal productive capabilities to take advantage of potentially positive gains or opportunities, or to prevent or overcome negative outcomes; or they have unequal ability to develop such action capabilities ...
2. As participants in the exchange system they have unequal ability to structure the external conditions of exchange ... (Baumgartner *et al.* 1976:54).

For island states which are considerably smaller than Fiji, the implications of this form of tourism development become very serious. For those micro states not strategically located within the key trans-Pacific air routes, three factors will dictate the viability of their tourist industries. First, they will be even less able than Fiji to meet the intensive capital and specific management requirements of tourism. By implication they will probably be less able to develop a successful group of local entrepreneurs capable of competing with overseas concerns.

Second, with the development of new micro state Pacific destinations, there will be an exacerbation of the problem of many destinations selling an almost identical product. In this context, these destinations can expect to become vulnerable on two accounts. There will be a diversion and dilution of tourist flows to other destinations. Conversely, the potential social and political problems consequent on tourist flows in such small states are more likely to be beyond the capacity of local tourist plant and social systems to adequately cope.

Third, even though Fiji is able to attract tourists because of its role as a key stop-over point for foreign airlines, it is still vulnerable to the commercial practices of these airlines. In the last few years, for example, Fiji has been deliberately by-passed by Australian and US air-carriers. Micro states on the periphery of these transport routes can expect to encounter considerable difficulties simply to establish suitable international tourist transport connections in the first place. The obvious alternative to reliance on foreign aircarriers, the establishment of a national airline, is fraught with intractable problems, not the least of which will be opposition by metropolitan

governments and airlines to allowing direct access to the key tourist markets of Sydney, Melbourne and Auckland.

Table 4

The Fiji tourist industry: distribution of tourist receipts between metropolitan and Fiji national industry sectors, 1977

Sector	Gross turnover (\$'000)	Percentage of turnover
Metropolitan airline companies ^a	35,335	26.4
Metropolitan cruise ship companies ^b	18,679	14.0
Fiji based:		
Accommodation sector	31,720	23.7
Travel and tour sector	13,789	10.3
Tourist shopping sector	26,460	19.8
Handicraft tourist	1,419	1.1
Miscellaneous tourist expenditure	6,459	4.8
Total	133,861	100.0

^aCalculated as follows: Total airline income from the Fiji sector was estimated to be \$64,139,000 (Britton, 1979:513-16); 50.1 per cent of this was estimated to have been generated by tourists visiting Fiji as their sole destination. The remaining \$32,005,000 represents air travel expenditure from tourists using Fiji as a stop-over across the Pacific or as part of a multi-destination holiday. Of this sum, an arbitrary 10 per cent (\$3,200,500) is assumed to be attributed to Fiji destination expenditure.

^bCalculated by assuming Fiji was responsible for generating 32 per cent of cruise ship company incomes (Britton, 1979: 513-16).

Source: Field Survey, 1977, estimates.

Table 5

The Fiji tourist industry: international and national
distribution of receipts by foreign and local
enterprises, 1977

Ownership category	Gross turnover (\$'000)	Percentage of turnover
Foreign airline corporations	35,335	26.4
Foreign cruise ship companies	18,679	14.0
Foreign duty-free importers and suppliers	15,200	11.4
Foreign Fiji ground plant companies	32,108	24.0
European Fiji companies	10,467	7.8
Indian Fiji companies	10,993	8.2
Fijian Fiji companies	719	0.5
Other Fiji companies	2,564	1.9
Miscellaneous tourist expenditure ^a	7,796	5.8
Total	133,861	100.0

^aIncludes government fiscal taxes on duty-free imports.

Source: Field surveys, 1977, estimates.

Since Pacific tourism is so dominated by the metropolitan countries, micro states should ensure that if they wish to participate in the benefits that tourism can undoubtedly bring, every effort should be made to enforce national control over their ground plant and international transport links. Alternatively foreign participation in local tourism should only be accepted on terms consistent with national development goals. In either case, given the inherent nature and organization of international tourism, it would be prudent for any one micro state not to become too dependent on generating development capital and new employment opportunities from tourism.

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Section V
**Finance and
Economic Stability**

Chapter 12

The anatomy of credit for Pacific island nations

R.V. Cole

For those people who, over recent years, have been involved in the affairs of the South Pacific, and who have had time to reflect, probably one of the most dramatic and indeed far-reaching changes in the last decade (aside from the altered political status of most island groups) has been that associated with financial flows and, in particular, 'aid'. It is hard to believe that it is less than ten years since a mission from Fiji, visiting Canberra to seek to borrow funds in that sector of the loan market traditionally reserved for local government and statutory bodies, was told that under no circumstances could the then colony have access to that particular sector of the Australian loan market.

To temper the Treasury's apparent lack of concern for Fiji's genuine efforts to act responsibly in financing its development program the then Secretary (Sir Richard Randall) did agree to consider less difficult ways of assisting with Fiji's development program and shortly afterwards there was a marked (if modest) increase in the Australian South Pacific Aid Program (ASPAP), chiefly through 'gifts' of wheat which the Fiji government promptly sold to millers, crediting the proceeds to the Capital Fund.

Over the last ten years a majority of the island states of the South Pacific have changed in status from colonies to independent nations with (in all but a few special cases) sovereign power over their destiny and a seat in the United Nations. In even more recent times they have acquired a rather special status, that of 'developing island countries' (DICs), and this has led to a focus of attention on their problems of being small, isolated, often mono-crop economies, with peculiar demographic, trading and other circumstances. (See Appendix A for a summary of some

of the recent pronouncements by international agencies on DICs.)

This change has brought with it a virtual cornucopia of assistance from a wide range of bodies and the situation is now no longer one of small groups of politicians and public servants 'creeping through the corridors of power' with their mendicant's bowl. Rather it is the reverse: aid missions now criss-cross the region, reviewing, identifying, appraising, evaluating, monitoring, implementing like a series of satellites each with its own particular brand of technology or benefit. These missions are sometimes counter-productive, coming as they often do one on top of another leaving already overworked officials with little time to assess or quantify the benefits which they purport to offer. Some metropolitan countries in the region have specialist officers attached to their embassies or high commissions to handle aid questions while most United Nations agencies are represented by experts or administrators as part of their contribution to overcoming the particular problems for which they were established.

The less populous, less well economically endowed island states of the region can be excused if they feel overwhelmed by the alternatives which now face them — the choices between one offer and another and the problems of assessing the impact of aid not only on their people, ecology or economy but also on their often fragile and lean recurrent or operating budgets which usually have to bear the long-term financial implications of aid funded capital expenditure.

The concern of this paper is to examine one aspect of the various forms of financial assistance available to island nations, that is the use and implications of 'credit' or borrowed money.

The role of credit

How often does the plaintive cry go up, either by nations, corporations or individuals — if only we had the money ...! How easy it is verbally to equate money *per se* with progress or development, to regard it as the magic wand which will right all wrongs and pave the way for a brave new world. True, money (perhaps more importantly foreign exchange in the less developed countries — LDCs) is important but it is often no more than a catalyst in

producing change: a splendid servant — a very bad master. Before credit can be used to advantage in either the public, private or personal sector there are a number of important preconditions, and these will vary depending upon the area in which the credit is to be used. As an example, consider briefly some of the issues which must be taken into account before a country may seek credit for the purchase of, say, an electricity generating plant:

Initial planning: this must include consideration of —

- (i) location of plant to ensure the most efficient distribution system with the least effect on the environment and ease of access for operators;
- (ii) demographic factors — structure of population and migration habits;
- (iii) the use to which the power will be put — domestic, commercial and industrial.

Manpower: does the country have the skills to instal and maintain the plant, to provide any extra reticulation; are training programs necessary for local staff to allow them to operate the plant once installed?

Financial: what are the implications of the initial capital expenditure on the nation's operating budget — what provisions, if any, should be made for replacement? What type of charges should be adopted? Can the population afford economic rates? If not should a government subsidy be involved?

Type of plant: in this time of increasing shortage of fossil fuel what is the most economical type of plant — diesel, hydro — what options exist?

Less dramatic but equally important are the issues to be considered in promoting the use of credit by national development banks in the development of the individual. In the case of a rural producer being urged to employ credit as a means of increasing his status and financial well being, as well as reducing the national dependence on imported foodstuffs, there are an equally wide range of considerations:

- (i) are the extension services of the department of

agriculture capable of teaching the producer the necessary techniques of production so as to make credit worthwhile?

- (ii) what markets are available for enhanced output and are the means of delivery to the market adequate — roads, vehicles, etc.?
- (iii) does demand for the product exist — is it elastic or inelastic?
- (iv) are there adequate services available to cater for rising production — labour to harvest, water, herbicides, storage?

These are some, but only some, of the issues which must be examined and resolved before 'credit' — money to pay for plant, labour, fertilizer, fuel and other components of a 'development project' — is sought and obtained to complete the first stages of the development cycle.

The need for credit in both the public and private sector of the DICs in the Pacific will be considered in the next section but firstly it is appropriate to consider just what delivery agencies are available within the region and to whom they are accessible. Appendix B sets out, in summary, some of the major organizations which provide credit facilities in the region, while Appendix C gives an indication of the level of borrowings from the major multilateral lenders together with some data on Official Development Assistance.

The multi-lateral credit agencies

The World Bank (IBRD) Group. Only Western Samoa is a member country of the World Bank's International Finance Corporation (IFC) but to date the Corporation has made no investment in countries in the South Pacific covered by this paper. The IFC is concerned with investing in productive private enterprise — perhaps demand for capital from this sector of the economy will (in the future) prompt other Pacific countries to seek membership. Only Fiji and Western Samoa are members of the International Bank for Reconstruction and Development (IBRD) and its linked International Development Association (IDA), with the former country borrowing from IBRD at normal rates and Western Samoa, taking advantage of its OECD bestowed 'low income' status, receiving IDA

credits on a concessionary basis. Solomon Islands are understood to be in the process of joining IBRD.

Asian Development Bank. This can be fairly regarded as the Pacific's major international finance institution laying claim to six of the twelve island groups considered in this paper as full participating members. Fiji is the only country to have had access to both 'Ordinary Capital Resources' and the low interest rate 'Special Funds' as well as 'Technical Assistance Grants'. Other member countries (Cook Islands, Kiribati, Solomon Islands, Tonga and Western Samoa) have all received 'Technical Assistance' in one form or another while all but Cook Islands have received loans from the 'Special Fund': these loans carry a 1 per cent annual service charge, and enjoy a 40-year repayment period with a 10-year grace period in respect of principal.

European Development Fund. Pacific countries which are signatories of the Lomé Convention are entitled to participate (*inter alia*) in the activities of the EDF – an agency for financial and technical co-operation between the EEC and associated overseas states and territories. Three countries in the Pacific (Fiji, Tonga and Western Samoa) are signatories to the Lomé Convention and have been allocated specific drawing rights (units of account or UA: see Appendix B). In addition, specified (British) 'Overseas Countries and Territories' (Solomon Islands, Kiribati, Tuvalu and New Hebrides) have been allocated specific sums of account against which programs of development may be established.

In addition to support for individual countries in the region, there is a \$10 million UA program¹ for regional projects to be undertaken through the South Pacific Bureau for Economic Co-operation (SPEC). These were, in May 1978:

	<u>UA (\$'000,000)</u>
Telecommunication Network	4.3
Telecom Training Centre	1.5
Applied Agricultural Research	1.0
Marine Resources Centre	1.0
Regional Rural Development Centre	1.2
Reserve	<u>1.0</u>
	<u>10.0</u>

¹EEC programming Mission to the Pacific, 21 February to 10 March 1978.

Regional projects will be funded on a grant basis while specific country assistance is in the form of loans on special terms.

Bilateral credit

Despite Australia's initial reluctance to let Fiji enter the Australian domestic loan market, the facts are that in more recent years Fiji has become a relatively substantial borrower from metropolitan countries of the region. In addition to Australia and New Zealand, Fiji has raised loans from Nauru and a variety of other external lending institutions. It would appear that for the time being a majority of the DICs of the Southwest Pacific will not need to have recourse to borrowings from other countries in order to provide capital for development in the public sector thanks to the generosity of grant aid. In the private sector, and in the case of potentially self-supporting projects such as power and urban services, overseas borrowing may well be necessary especially for the smaller countries with a very limited domestic capital market. Fiji's efforts at overseas loan-raising will serve as a valuable example.

Domestic credit

In both the private and public sectors of island economies there is a varying need for access to credit for capital formation or the development of infrastructure. There is a varied degree of sophistication within the island nations as regards mechanisms for providing or raising credit, but owing to a regional philosophy of 'experience-sharing' there is also considerable similarity in the use of credit as a means of sponsoring development.

Domestic borrowing. Fiji is a clear leader in the use of local capital as a means of supporting the national development program and has 'tapped' a wide range of institutions to support its fund-raising activity, for example insurance companies, trading and savings banks as well as the private commercial sector of the economy. Other DICs in the region have a less developed domestic capital market and only Western Samoa, so far, has followed Fiji in the raising of local loans for public development projects.

National provident funds. Based on the Singapore/Malaysia models these funds have been established to provide retirement benefits for employees in the private and public

sectors of Fiji, Solomon Islands, Kiribati and Western Samoa. They are especially important with the breakdown in traditional systems for the care of the aged and appear to have universal acceptance in the countries where they are in operation. As far as governments are concerned they have a twin benefit. Aside from relieving governments of the need to provide some form of social security scheme for workers who, on retirement, are not catered for by the traditional social systems, they are a veritable 'money machine'. Operating on the basis of a 5 per cent contribution by the worker and 5 per cent by the employer (of an employee's pay) they have a continuous flow of income which must be invested in quality securities — usually government or semi-government. As these monies are of the 'trustee' variety it is not unreasonable that governments should have a fair degree of control over investments in both the private or public sector.

National Development Banks (NDBs). Of the twelve Pacific states considered in this paper eight have a development finance institution, of one type or another, catering for the credit needs of the private and semi-government sectors of the national economy. Cook Islands, Fiji, Solomon Islands, Tonga and Western Samoa have established what may well be the Pacific-prototype of a development bank which is geared to serve all sectors of commerce, industry and agriculture. In addition to providing credit for all project sectors of the economy with a marginal 'development flavour' they also provide guarantee and equity facilities to support cash flow in projects which might otherwise not be in a position to 'get off the ground'. Niue has a development fund which is mainly concerned with the operation of government-owned commercial projects involving the processing and sale of limes, passionfruit and honey but it does make some loans in the private sector. The New Hebrides has an Agricultural and Industrial Loans Board catering for the credit needs of the anglophone sector of the economy: it is now virtually defunct and more concerned to collect bad debts than make loans. The Caisse Centrale de Co-operation Economique based in Paris provides credit for the franco-phone sector of the economy.

Trading banks. The Pacific had traditionally been the preserve of commercial trading banks based in Australia and New Zealand. Within the last ten years, however, there has been a marked change with British, Indian and American banks entering the scene as well as a growth in national

banks other than those of the post office savings variety. (Appendix D lists commercial banks operating in the Pacific.) Generally speaking commercial banks in the region provide a trading service with foreign exchange, current account, overdraft and housing loan facilities. They also support national development loans directly or through the central bank.

In nearly all DICs of the Pacific the small size of the domestic capital market has precluded the establishment of a share market as a means of mobilizing funds for private capital formation (Fiji is about to set up a stock exchange using the facilities of the Development Bank). The alternative is to use the services of trading banks for short to medium-term loans and NDBs for longer term accommodation.

Central banks. A majority of Pacific island countries retain the currency of a metropolitan power in the region but Fiji, Western Samoa and Solomon Islands do operate within a central bank system involving note issue, foreign exchange and trading bank control. Established by Statute these institutions are in a position to assist in the provision of credit for national governments.

Personal credit. Within the islands of the Pacific there appears to be an adequate number of institutions offering credit facilities for the individual who can comply with the rules of the various bodies. These are credit unions, savings and loans societies, credit co-operatives and the like — all of which stress thrift and all of which are plagued from time to time with managerial problems. Post office savings banks offer the opportunity to save but do not provide credit. Only Fiji makes legal provision for money lenders.

Credit for what?

Despite the increasing flows of aid to the DICs of the South Pacific and the presence of some eighty-four² 'aid agencies' operating in the region, there remains a 'gap' in the capital needs of the island economies, both national and private. This 'gap' is filled largely by borrowing both internally and abroad: for example, Fiji's public debt (represented by domestic and overseas loans) rose from

²SPEC Directory of Aid Agencies.

F\$35.8 million at the end of 1969 (a year before independence) to F\$191.6 million at the end of 1978 — a rise of over 435 per cent in 9 years. This was an increase in the *per caput* figure for public debt from F\$69.5 to F\$319.3 over the period. At the same time *direct* aid fell from F\$4.48 million in 1969 (capital budget total F\$8.5 million) to F\$3.95 million in 1979 (capital budget total F\$52.6 million). Admittedly in the Pacific Fiji stands very differently from the other island nations in terms of population, national resources and general development but it does have in common with many the need for borrowed funds to ensure development of the level sought by political leaders and the population at large. The Capital Revenue estimates for 1979 envisaged local loans of F\$15 million and overseas borrowings of F\$33.46 million.

There are those countries which believe they have need of credit but for one reason or another find it difficult to come by and therefore must continue to rely on friendly metropolitan powers to provide *all* the capital for their needs. For example, the former Minister of Agriculture, Niue (The Hon. Young Vivian), in speaking to a motion for a proposed South Pacific Regional Development Fund (SP/RDF) in Pago Pago, American Samoa in 1977 said:

We like and support the idea of a SP/RDF as a means of supplementing the financial support we currently receive from New Zealand for our capital program. But even if one were established the likelihood of Niue being able to make use of it is slight because we would find it hard to earn sufficient to repay our borrowings — especially if a foreign currency was involved.

Public capital investment. In addition to the wide range of necessary public capital works that do not normally qualify for aid finance, for example administration, police and prison buildings, public works, heavy equipment and government housing, there is a government counterpart contribution required in most infrastructure or other capital projects financed from aid funds. While governments would like to fund capital budget works (for which they are responsible) by transfers from recurrent or operating budgets this is seldom possible and the basic contribution to capital programs remains provisions for loan charges and sinking fund. (Fiji's Contribution on Account of Public Debt in 1979, for example, is estimated at F\$34.6 million or 17.6

per cent of the operating budget for that year.)

Private capital formation. In the region this is still largely funded by capital inflows from associated or parent companies but increasingly private investors are looking to a government equity (especially in substantial projects) both as a form of 'protection' and to ease cash flow problems which stem from too high a borrowing load in the early years of development.

Commercial development relies heavily on local trading banks for operating capital and to an increasing extent on national development banks. As previously mentioned these institutions in the region are multi-purpose and lend for even marginally economic projects of an agricultural, commercial or industrial nature as long as there is some degree of 'development' involved. They are all wholly government-owned and as such are regarded as an integral part of the national effort in development and are required to respond to ministerial direction but only within the terms of their governing legislation. Those NBDs which are borrowers from the ADB have adopted a set of operating guidelines which, amongst other things, require them to observe a debt:equity ratio of 3:1. This has caused some problems in Fiji where the demand for credit is high and local borrowing for on-lending not too difficult, as government with higher priorities in other areas has not been in a position to increase its shareholding in the bank: aid funds from Australia and New Zealand have been used to overcome this problem by allowing government to increase their shareholding in NBDs. In this way liquidity is restored as both capital and loan funds are increased. In Western Samoa the high demand for rural credit under the Rural Development Program has left the Western Samoa Development Bank in a tight liquidity situation (in respect of local currency). The bank has access to adequate foreign currency under ADB sub-loans (from government) but must rely on further additions to equity capital through Australian and New Zealand aid to allow it to sustain its level of local currency operations.

Normally it is the national government which borrows from the multinational organizations (IBRD, ADB) for on-lending to NBDs, thus assuming responsibility for foreign exchange risks and 'head loan' repayments. Usually borrowings are to strengthen the bank's total liquidity and foreign exchange position but on occasions loans are raised for specific projects to be managed substantially by the NDB, for example

the Seaqaqa sugar cane development project in Vanua Levu, Fiji. One of the problems faced by NDBs in using credit lines provided by the multilateral agencies is the stipulation that (for the most part) the credit might only be used to finance the foreign exchange component of a particular project or program. This stipulation does not usually apply to the funds when used the 'second time round'.

Statutory bodies and government corporations. To varying degrees the islands of the Pacific have turned to government-owned corporations or statutory bodies to be responsible for specialist functions such as housing, telecommunications, domestic air services, large plantations or other industries. These all have a heavy demand for credit, more especially because they are undertakings which need credit to grow and succeed. They generally call upon domestic credit facilities to meet their needs although there are those such as the Western Samoa Trust Estates Corporation which is a borrower from the ADB in its own right.

Regional activities. Air Pacific and The Forum Shipping Line are two major activities with regional government shareholding. While they may borrow in their own right the needs of these undertakings are substantial and will continue to be so in proportion to their growth. They will need access to credit to sustain expansion.

Self-reliance. This is an exceptional motive which does not rest easily with the other suggested reasons for borrowings by DICs. Indeed it could well fit into one or more of the preceding sections but is perhaps worth keeping separate in order to highlight the issue which it focuses upon. A number of the smaller DICs in the region are not, at the present time, viable and it is difficult to see just when they might reach a stage of complete self-reliance. Under these circumstances there is a need for a strategy totally different from any of the existing models. It is not a question of aid alone but of considering development alternatives based on aid and credit. In order to overcome difficulties in self-reliance arising from size, isolation and lack of resources, such countries may well need to evolve a strategy based on a very high degree of specialization. Currently some countries are taking advantage of the imaginative Pacific Islands Industrial Development Scheme (PIIDS) sponsored by New Zealand whereby entrepreneurs of that country are encouraged to set up commercial ventures in the Pacific islands. Perhaps a development on

a larger scale than PIIDS is worthy of consideration whereby the whole of a small island, or group of islands, becomes highly specialized in one particular venture — becoming what the jargon refers to as 'a company town'. Of course, there are dangers in such a step — the vagaries of the international market and the effects of accelerated outward migration — but if trade is seen as a long-term alternative to aid then the idea seems worthy of detailed study. If a strategy can be determined then a 'mix' of aid and credit to secure the development of trading ventures would seem appropriate.

Credit categories

It is possible, on the basis of known facts, to place the twelve countries referred to in this paper in three broad categories as regards their access to credit for both the public and private sector. Like other issues in the Pacific the assessment of credit needs and availability tends to highlight the differences between nations of the region. However, in attempting to identify the need for any special measures of assistance it is important to group the countries (however crudely) as between those that require consideration and those that do not.

- (i) The Credit Advantaged States (CAS): Fiji, Solomon Islands, Tonga and Western Samoa. Despite the fact that the OECD has categorized all of these countries but Fiji as 'low income' it would seem, at least from the point of view of credit availability, that they are well served. All four are members of ADB and signatories of the Lomé Convention, while Fiji and Western Samoa are also members of the World Bank, with Solomon Islands about to join. Only Tonga does not have a central bank or monetary authority. All have national development banks and, for their size, are well served by trading banks.

Tonga does not have a National Provident Fund but the other three do and they are active in supporting both the public and private sectors with loan finance. All countries have their own currencies.

- (ii) The Less-Advantaged States (LAS): Cook Islands, Kiribati. OECD rates these countries as 'low middle income', such status probably arising from remittances from abroad (in the case of Cook Islands from

residents in New Zealand and Kiribati from seamen on foreign-going ships).

Both are members of ADB and have received technical assistance. Kiribati has borrowed from Special Funds for the development of an inter-island causeway. Cook Islands has a national development bank and both have trading bank facilities. Neither has its own currency.

While Cook Islands could, because of its special constitutional relationship with New Zealand, expect to be able to borrow from that country in the event of need Kiribati will probably need to rely on ADB or an accommodating neighbour for its credit needs — Australia or possibly Nauru.

(iii) The Credit Problem States (CPS).

- (a) Nauru — really does not belong in this category but it is a 'problem' country in that as a (diminishing) resource rich nation with a small population it is not easily categorized in relation to its Pacific neighbours. Too 'rich' to be readily accorded recipient status with the ADB it looks to the day when phosphate deposits will be exhausted and its future will depend on the wisdom of present-day investment to provide both private and public 'necessities'. Nauru owns international shipping and air line services and has very substantial off-shore investments but maintains that it requires access to credit for the present and future development of these and other services which will provide the long-term mainstay of the population.
- (b) New Hebrides — probably only temporarily in this category and more likely a LAS once independence is achieved. It has almost a surfeit of trading banks because of its status as a 'finance centre' or 'tax haven'. These banks provide few credit facilities for either the public or private sectors of the internal economy. The colonial powers still dominate the country's development program but once the current political status changes it is almost inevitable that there will be more offers of support (including financial) than the country will be able to cope with —

at least in the early post-independence days.

- (c) Niue — like Cook Islands, has a special constitutional relationship with New Zealand whereby Niueans are New Zealand citizens and New Zealand has (Clause 7: Niue Constitution Act No. 42/1974) 'a continuing responsibility ... to provide necessary economic and administrative assistance to Niue'. The extent of this assistance has never been fully quantified but currently it extends to both annual and capital expenditure programs. Niue has a number of statutory bodies (concerned with housing and development) which require capital in relatively large (for Niue) amounts but to date they have depended on grants rather than loans to fund their activities. It is expected that if approached New Zealand would provide loan funds for both the government and statutory body capital works but, as the former Minister for Agriculture (The Hon. Young Vivian) has queried, how will Niue earn funds to repay such borrowings?
- (d) Tokelau — comprises three atolls and is currently a dependency of New Zealand. The population of Tokelau is approximately 1600 with an economy based on the sea, coconuts and remittances from relatives who have migrated to New Zealand. It is unlikely that the country will need access to credit for development in the foreseeable future.
- (e) Trust Territory of the Pacific Islands — the United Nations holds the territory in trust with the USA acting as the administering authority. The question of the future political status of the three major archipelagoes comprising the TTPI is still very much in doubt and current indications are that after the Trusteeship Agreement ends in 1981 a number of separate states will emerge, each having a differing relationship with the present metropolitan power. Financial support from the USA is likely to vary from state to state and the extent to which they may look to multilateral organizations (World Bank/ADB) or UN agencies for development credit is still very much an unknown quantity. Currently TTPI is a member of the SPC but, by virtue of its political status, is not eligible to be a member of the ADB (for example).

- (f) Tuvalu — became independent in October 1978. It has a population of under 8000 who inhabit nine islands of a total area of 25.9 sq. km. The economy is based on the sea and coconuts and Tuvalu depends on grants in aid from the former colonial power (United Kingdom) to balance the recurrent budget. Tuvalu receives aid in support of its capital programs from the UK, Australia, New Zealand, UN agencies and the European Economic Community: it is signatory to the Lomé Convention and a member of the SPC and SPEC. Despite access to foreign capital and recurrent aid Tuvalu is deeply concerned to raise further development capital. *Pacific Islands Monthly* (May 1979) reported attempts by the country's Prime Minister to raise a loan of A\$5 million for development of a fishing industry by investing over A\$500,000 of the national assets with an American businessman. The outcome of this negotiation is still unclear.

Conclusions

The island nations of the South Pacific appear to be well served in the matter of grant aid donors and in the range of agencies which can facilitate their access to credit for development needs in the public and private sectors of their economies. The ADB, in its 1978 annual report, detailed the manner in which it is catering for the needs of smaller Developing Member Countries (DMCs) in the following terms:

Review of Bank Operations in the South Pacific

In December, the Bank's operational policies in relation to South Pacific DMCs were reviewed and modified, with a view to making them more responsive to the specific needs of these countries. It was decided that, in meeting the requirements of South Pacific DMCs, the bank would:

- (a) consider lending to most South Pacific DMCs on concessional terms, implementing flexibly the general criteria set out for this purpose;
- (b) basically help to develop the productive capabilities of South Pacific DMCs with priority to fisheries and forestry projects;

(c) support the main rural development thrust on the basis of less sophisticated approaches and technologies; and,

(d) pay particular regard to the respective size and potential of the various South Pacific DMCs in order to be able to assist different countries in different ways. Recognising that the smaller South Pacific DMCs (as well as the Maldives) would usually have smaller projects, the Bank is prepared to consider multi-project loans for 'packages' of public sector projects in these countries, which may be from more than one sector. A further review of these policies relating to Bank operations in South Pacific DMCs will be undertaken after three years (ADB 1978 Annual Report, p.46).

The SPC has on two occasions initiated consideration of the need for either a South Pacific Development Bank or a Regional Development Fund and on both occasions the South Pacific Conference has concluded that special arrangements for the DICs of the region are unnecessary. In addition to the ADB, the World Bank group and EEC are visible presences in the region providing credit for member countries. There are numerous multilateral and bilateral aid donors operating in the region as well as non-government organizations all bent on assisting the developing countries. There are obviously those countries which are well catered for, which play by the rules of the 'aid game' and are content to see no change in the present system of credit delivery. They have the manpower to service their credit gathering activities, they belong to the right organizations, they are able to build on their own resource base. These countries are Fiji, Solomon Islands, Tonga and Western Samoa.

There are other countries with special problems — they are too rich, too small, or too tied to a metropolitan power to be readily assisted by the big agencies. They do not necessarily need their own specialist credit institution but they need something. A preliminary answer is to quote in summary form the 'Report of a Meeting to Consider the Feasibility of a Regional Development Fund' — Nauru 21-22 March 1978 (SPC publication) and the views of island delegates.

Cook Islands — supports an SP/RDF — it is having difficulty with international lending institutions as they

are not geared to the real needs of the Pacific countries.

France — believes contact between ADB and Pacific territories could be improved by the establishment of a regional office of ADB.

Guam — supported the idea of an SP/RDF (but could not join because of relations with USA).

Nauru — recognized the need for a Fund, as it cannot yet join ADB in the category of a DMC.

New Hebrides — supported the idea of a section within an existing organization to cater for the financial problems of Pacific states which are not members of ADB.

Tonga — considered that adequate credit is available but must get its priorities right and sort out administrative capacity.

Tuvalu — needs to establish a fishing industry.

Western Samoa — costs of an SP/RDF would be high, additional funds needed for development can be found possibly by establishing a Special Fund within an existing agency.

Ultimately the meeting concluded that:

- (a) the idea of an SP/RDF should not be pursued;
- (b) an existing institution be consulted, e.g. the ADB, as to ways of providing assistance to small Pacific countries;
- (c) there should be modifications to ADB procedures to take account of conditions in the South Pacific and that the Bank should expand funds available to countries in the region;
- (d) the name of the Bank should be changed to the Asia and Pacific Development Bank.

At the 18th South Pacific Conference (7-13 October 1978, Noumea), the report of the Nauru meeting was considered and it was resolved:

that the Secretariat [of SPC] representing those members of the Conference which are not members of the Asian Development Bank should explore whatever ways and means may be necessary or appropriate to enable such members to participate in ADB Development Loans.

What has transpired since the October Conference is unknown at this stage but certainly the December 1978 review of the Bank's operational policies as reported above does nothing for the group of countries referred to in the South Pacific Conference resolution as the review related only to DMCs.

As far as the South Pacific is concerned there is no real lack of funds for development of either the grant or credit variety yet there is still, among the DICs (and especially the smaller ones), a feeling that somehow their needs are not being met, that they are not receiving the consideration of their problems that they deserve. Surely the time has come to 'grasp the nettle', at least as far as the 'less advantaged' and 'problem' (credit-wise) countries of the region are concerned: time to take up the question of improving the understanding of and access to credit in the South Pacific. The needs of the South Pacific countries are, by world standards, small but, what Edward Dommen says in regard to their finances is so correct.³ 'What does distinguish them is that as a result of their small size and very open economies they need a constant inflow of funds from overseas to keep the economy running. They are particularly sensitive to variations in foreign receipts.'

Their needs go beyond *just* grants or credit. As far as credit is concerned some of these needs include:

- (i) accessibility — an ability to talk to someone in the region about what they consider their credit needs to be, not just when a visiting mission happens along but when *they want* to discuss the issues surrounding and implications of borrowing for their development;
- (ii) flexibility in loans — not only credit to meet off-shore costs but also local costs together with interest rates and amortization schedules which

³E. Dommen, Mobilising External Finance for Small Island Economies in the Commonwealth, July 1977 (mimeo.).

- reflect their ability to pay;
- (iii) appropriate sized loans – tailored to the needs of their economies;
 - (iv) recognition that failure, in a loan funded project, will have a profound effect on their whole economy, often quite out of proportion to the size of the economy: something which would not necessarily occur in a larger country;
 - (v) implementation, drawdown and post-implementation evaluation must be handled with sympathy and understanding and in particular once the loan has been agreed it should be implemented as soon as possible.

In agreeing that the scale of credit available to South Pacific countries is adequate for their needs it might well be argued further that it is more than adequate. It is, however, the complexity of the procedural requirements of major agencies – World Bank and ADB – which militate against their ability to service their island clients effectively: the very size of the island economies must be hard for some of the international banking bureaucracy to comprehend. What can be done? Attempts by SPC to encourage the establishment of a regional credit organization have come to naught so it is necessary to build upon what is available.

There is little question but that the ADB is the specialist development credit institution in the region with obvious goodwill towards and concern for the DICs of the South Pacific. In order to take advantage of these attitudes *all* island states of the region should be encouraged to apply for membership of the ADB. This implies the need first to acquire membership of ESCAP and then to take up a shareholding in the Bank: the first requirement should not be onerous and indeed will provide other benefits while the second should not cause problems, as it should be possible for an aid donor to assist in funding the necessary share acquisition. In the case of countries not responsible for their own international relations, e.g. New Hebrides and Niue, the country so responsible may sponsor them for membership but is required to accept obligations which the island member country might incur with the Bank. This proposal does not meet the special problems of Nauru which has so far been denied membership as a developing country.

Some alternative arrangement may be necessary for Nauru so as to encourage all South Pacific states to acquire full membership of the Bank.

Article 19(ii) of the instrument establishing the ADB⁴ provides that it might accept the administration of Special Funds which are designed to service the purposes and come within the functions of the Bank. Such Special Funds may be used in any manner and on any terms and conditions not inconsistent with the purposes of the Bank.

It seems unreasonable that the existing Special Funds of the ADB should be used to meet some of the particular credit needs of the South Pacific region's smaller nations. This view applies especially to Special Funds established under Article 19(i) which caters for essentially concessionary lending, that is low or nil interest loans, deferred repayments and extended maturity dates. It is proposed that consideration might be given to establishing a South Pacific Regional Development Special Fund (SPRD/SF) by one of the regional agencies to be handed over for administration by ADB. Loans, guarantees etc. made through this Fund would be especially 'geared' to the region - not necessarily concessionary lending but 'tailored' to the needs and conditions of individual countries. The SPRD/SF might be solicited from metropolitan member countries of the two regional organizations (SPEC/SPC) as well as EEC, OPEC and DAC countries. The final size of the fund would need to be decided but, given that the Pacific countries would continue to have access to the 'Ordinary Capital Resources' and 'Special Funds' of the Bank, A\$10 million would seem a reasonable starting point.

For some time there has been a feeling among South Pacific countries that their special credit problems would be more effectively dealt with if the ADB were to open a branch office in the region. The Bank, for a variety of reasons, has not been able to agree to this proposal. Certainly the Bank is becoming more responsive to the needs of these countries but it needs to 'move' more effectively into the region, to understand why the island states of the South Pacific are different. Article 37.2 of the instrument establishing the Bank provides that it may establish 'agencies or branch offices'. The difference between branch and agency has to be determined but presumably the latter

⁴CMD 2989 Misc. No.6, 1966, H.M. Stationery Office, London.

would have more of a liaison, public relations function leaving the operational activities in the hand of the appropriate Operations Manager at the Bank's Headquarters in Manila. Perhaps one of the existing regional organizations could be invited to provide a base for an agency office which would have an information service for normal Bank operations and a special and active role in relation to the SPKD/SF.

At the 1978 meeting of the Pacific Forum Countries Australia agreed to fund a post to assist in the marketing of the produce of South Pacific DICs in the developed countries of the region: the Commonwealth Secretariat has funded a post to allow for the implementation of recommendations of the Commonwealth Heads of Government Regional Meeting concerning narcotics, trade and terrorism. These are important posts supplementing as they do the often meagre resources of the DICs. An equally important post is currently lacking in the region and that is one which would provide an adviser to the smaller island states in matters relating to credit for development in the private, public and semi-public sectors of their economies. If the ADB feels unable to establish an agency in the region at this stage an alternative could be a special post within an existing agency, funded by the metropolitan countries of the region. The incumbent could act to develop the SPRD/SF, serve the small DICs as consultant, adviser and confident on credit matters and liaise with the ADB and its loan operations. The 'special adviser' would have expertise in dealing with the unique problems of the small island countries and would be available for hard pressed administrators to share problems with, to consult in matters of credit: not a peripatetic aid mission but someone who could act on a regular basis as an intermediary between the government, statutory bodies or private borrowers and the credit agency, the sort of post that no one country needs nor can afford but should have access to as and when the situation demands.

The options for development in the case of small DICs in the South Pacific are few. If credit is to serve to widen these options then they need help to improve their access to credit and advice as to how to manage it to their best advantage.

Appendix A

Summary of pronouncements on developing island countries
by some international bodies in recent years

In 1973, in pursuance of Resolution 65 of UNCTAD III, a panel of experts met in Geneva. Their report (TC/B/443/Rev 1) raised a number of issues on the 'problem of small DICs':

- (i) in seeking monetary independence the first step is usually to establish a central bank. Apart from management of the monetary supply and balance of payments the experts suggested that the bank could play a critical role in the development of the local capital market ... filling credit gaps in ... agriculture, industry and real estate (para 34).
- (ii) in order to achieve financial independence the DICs must do away with the need to rely on the support of metropolitans for their recurrent budgets.
- (iii) in the field of domestic capital formation the bank noted that there is heavy reliance on foreign aid and private capital inflows (para 35).
- (iv) in dealing with 'Regional Policies' (para 78-84) the panel of experts proposed co-operation between groups of islands which would, *inter alia*, provide services to 'economic planning (and) monetary institutions' and mobilize external resources.

The UNCTAD IV meeting in Nairobi (May 1976) adopted a comprehensive resolutions which, among other things proposed the following action in respect of DICs.

- (a) Developed countries should cancel the official debts of the ... developing island countries and the developed market economies should provide highly concessional terms of relief for other outstanding debt burdens (para 10 Resolution 98 (iv)).
- (b) That specific action should be taken in relation to the needs of DICs in the fields of shipping, air services, telecommunications, marine resources, commodity export earnings, tourism and the 'flow of external resources' (para 39-63). In respect of the flow of resources the resolution recommended that
 - (i) multilateral and bilateral institutions should intensify their efforts in raising the flow of resources to DICs for economic development.
 - (ii) the terms governing such flows should be geared to the special needs and problems of the countries.

⁵TD/RES/98 (iv) of 26.6.76.

- (iii) special measures should be taken in respect of inter-island transport and communications because of remoteness from markets.

In a paper HGRM (78)ii to the Commonwealth Heads of Government Regional Meeting on the DICs of the South Pacific by the South Pacific Bureau for Economic Co-operation (SPEC) it is claimed (para 13) that 'Ministers and senior officers in some countries are already obliged to spend a good deal of their time seeking new sources of funds ... [they] spend a large proportion of their time and energy on external aspects of development questions and [are] left with little time to apply the benefits of this activity to domestic affairs. The limits of absorptive capacity are set ... by administrative [factors] as hard pressed officials cope with visiting missions and the overwhelming correspondence needed to get results.'

A paper (SP Conf 18/WP 4 of 12.7.1978) prepared by the South Pacific Commission Secretariat for the 18th South Pacific Conference on the topic 'Special Problems of Small Island States' poses the question (para 25): 'are small island countries economically viable?' The paper's answer is 'In the narrow sense of financing their own imports ... often no'. It goes on to suggest that regional co-operation is one of the answers to the problem of individual small countries and cites the example of the Caribbean, including the Caribbean Development Bank.

In April 1979 the Commonwealth Secretariat sponsored a meeting to Apia, Western Samoa to consider the 'Problems of External Finance for Small Islands'. It was attended by representatives of eleven Pacific, African and Caribbean countries. The meeting reached a number of conclusions⁶ which included:

- (i) It is important to approach the question of external finance from the basis of self-reliance.
- (ii) There are problems for small islands in mobilizing and utilizing external finance.
- (iii) It was essential to ensure that regional institutions took fully into account the particular problems and requirements of small developing islands.
- (iv) The use of GDP per head as a criterion for aid allocation is inappropriate.
- (v) The use of GDP to distinguish countries eligible for concessionary loan finance, e.g. IDA credits, is unfair to DICs.
- (vi) There was a shortage of officials capable of identifying, preparing and implementing developing projects.
- (vii) There was a need to attract private foreign investment to generate growth and this was best done by providing a sound institutional framework for investment.
- (viii) Over rigid and complicated aid procedures were a burden on scarce administrative manpower resources of DICs.

⁶Report of the Meeting on Problems of External Finance for Small Islands, 10-12 April 1979.

Appendix B

Organizations providing credit in the South Pacific

Country	Population ^a 1977	ODA ^b per caput \$US	Member IFAs ^c	OECD Classif.	NDFC ^d	Trading Banks (no.)	Central bank facility	Currency
Cook Islands	18,500	422	ADB	LMI	Yes	1	No	NZ
Fiji	592,000	37	WB, ADB L/C	LMI	Yes	6	Yes	Fiji
Kiribati	53,000	116	ADB	LMI	No	1	No	Aust.
Nauru	7,300	—	—	LMI	No	1	No	Aust.
New Hebrides	99,500	132	—	LMI	Yes	7	No	NH Fr. Aust.
Niue	3,800	895	—	LMI	Yes	0	No	NZ
Solomon Islands	206,000	81	ADB, L/C	LI	Yes	3	Yes	Solomon Is.
Tokelau	1,600	687	—	LMI	—	0	No	NZ
Tonga	90,000	64	ADB, L/C	LI	Yes	1	No	Tonga
TTPI	129,000	710	—	UMI	Yes	2	No	US
Tuvalu	7,500	320	L/C	LMI	—	0	No	Aust.
Western Samoa	152,000	126	WB, ADB L/C	LI	Yes	2	Yes	W/Samoa

Sources: ^aSouth Pacific Commission Population Estimates.

^bOECD Review, 1978.

^cInternational Finance Agency.

^dNational Development Finance Corporation

Abbreviations: WB World Bank (IBRD)
 ADB Asian Development Bank
 L/C Lomé Convention
 LI Low Income
 LMI Low Middle Income
 UMI Upper Middle Income
 ODA Official Development Assistance

Appendix C

Levels of assistance from multilateral and bilateral sources (US\$mill.)

Country	Bilateral		Technical assistance (\$'000)	ADB 1978 ^d		Total OCR & SF	World Bank (Annual Report 1978)			EDF ^e Units of account ('000)	ODA All sources	
	ODA ex 1970 ^a	DAC 1977 ^b		Ord. cap. resources	Special funds		IBRD	IDA	Total		1970 ^a	1977 ^b
Cook Is.	—	7.26	—	—	—	—	—	—	—	—	n.a.	7.8
Fiji	6.5	19.43	70.00	16.20	—	16.20	50.20	—	50.20	16.174	7.1	21.9
Kiribati	2.1	6.0	—	—	—	—	—	—	—	—	2.2	6.2
Nauru	—	0.0	—	—	—	—	—	—	—	—	n.a.	0.0
New Hebrides	—	12.6	—	—	—	—	—	—	—	—	3.3	13.1
Niue	—	3.3	—	—	—	—	—	—	—	—	n.a.	3.4
Solomon Is.	8.0	16.0	241.70	—	—	—	—	—	—	—	8.2	16.7
Tokelau	—	1.1	—	—	—	—	—	—	—	—	n.a.	1.1
Tonga	1.3	4.9	88.00	—	1.50	1.50	—	—	—	130	1.4	5.8
TTPI	—	91.1	—	—	—	—	—	—	—	—	48.2	91.6
Tuvalu	—	2.4	—	—	—	—	—	—	—	—	n.a.	2.4
Western Samoa	0.3	11.1	98.00	—	4.00	4.00	—	4.40	4.40	980	1.5	19.2
Maldives	0.1	1.2	—	—	—	—	—	—	—	—	0.2	2.5
Mauritius	—	12.5	—	—	—	—	74.30	20.20	94.50	—	6.7	20.2
Seychelles	—	10.2	—	—	—	—	—	—	—	—	6.2	11.1

Sources: ^aOECD 1978 Review.

^bOECD 1974 Review.

^c*The Courier*, nos. 51, 53, 54, 55.

^d*Asian Development Bank Annual Report 1979.*

Appendix D

Trading and development banks in specific
Pacific island states

Cook Islands:	National Bank of New Zealand Cook Islands Development Bank
Fiji:	Bank of New Zealand Bank of New South Wales Australia & New Zealand Banking Group Bank of Baroda First National City Bank Barclays Bank International Ltd National Bank of Fiji Fiji Development Bank
Kiribati:	Bank of New South Wales
Nauru:	Bank of Nauru
New Hebrides:	Bank of Indo-Suez Australia & New Zealand Banking Group Bank of New South Wales Barclays Bank International Ltd Commercial Bank of Australia Hong Kong & Shanghai Banking Corporation National Bank of Australasia Caisse Centrale de Co-operation Economique Agricultural & Industrial Loans Board
Niue:	Niue Development Board
Solomon Islands:	Commonwealth Banking Corporation of Australia Australia & New Zealand Banking Group Hong Kong & Shanghai Banking Corporation Solomon Islands Development Bank
Tokelau:	No banks operate
Tonga	Bank of Tonga Tonga Development Bank
TTPI:	Bank of America Bank of Hawaii Micronesia Development Bank
Tuvalu:	No banks operate
Western Samoa:	Bank of Western Samoa Pacific Commercial Bank Development Bank of Western Samoa

Chapter 13

Problems of external finance for small islands: the experience of the Caribbean Development Bank

Officers of the Caribbean Development Bank

This paper looks at the problem of external financing for micro states from the point of view and experience of a small regional development bank which mobilizes resources regionally and internationally through market and institutional loans to allocate these to support the development efforts of small states. The paper discusses both the mobilization and allocation of resource stages of the development banking process.

The focus of the paper is principally on the CARICOM LDCs¹ and some other small territories. This delineation is maintained because of the emphasis of the seminar on small states and because Caribbean Development Bank (CDB) efforts to date have been concentrated on those territories which receive the largest part of their external financing through this institution. Furthermore, the characteristics of the other borrowing members of the Bank differ only as a small matter of degree when compared with other developing countries generally.

The Caribbean Development Bank

The CDB was established in 1970 to perform the following functions:

- (a) to assist regional members in the co-ordination of their development programs with a view to

¹CARICOM LDCs are the less developed countries of the Caribbean Community and comprise Antigua, Belize, Dominica, Granada, Montserrat, St Kitts/Nevis/Anguilla, St Lucia and St Vincent.

achieving better utilisation of their resources, making their economies more complementary and promoting the orderly expansion of their international trade, in particular intra-regional trade;

- (b) to mobilise within and outside the region additional financial resources for the development of the region;
- (c) to finance projects and programmes contributing to the development of the region or any of the regional members;
- (d) to provide appropriate technical assistance to its regional members, particularly by undertaking or commissioning pre-investment surveys and by assisting in the identification and preparation of project proposals;
- (e) to promote private and public investment in development projects by, among other means, aiding financial institutions in the region and supporting the establishment of consortia;
- (f) to co-operate and assist in the regional efforts designed to promote regional and locally controlled financial institutions and a regional market for credit and savings;
- (g) to stimulate and encourage the development of capital markets within the region, and
- (h) to undertake or promote such other activities as may advance its purpose.

During the period to 31 December 1978 the CDB had mobilized the following resources:

	<u>Amount of US\$'000</u>	<u>% of total</u>
1. <u>Ordinary operations</u>		
Paid-up capital and reserves	41,946	(16.2)
Borrowings: Regional market	14,750	(5.7)
Multilateral institutions	24,131	(9.3)
Total	80,827	31.2
2. <u>Trust fund operations</u> (hard resources)	25,022	9.7

	<u>Amount US\$'000</u>	<u>% of total</u>
3. <u>Special operations</u> (soft resources)		
(a) Special Development Fund:		
Contributions	48,580	(18.7)
(b) Special Development Fund:		
Loans (at interest)	31,026	(12.0)
Agriculture Fund: Contribution	9,251	(3.6)
Loan (at interest)	16,500	(6.4)
Housing Fund: Loan (at interest)	8,400	(3.2)
Counterpart Contribution Fund:		
Loan (interest free)	4,167	(1.6)
Caribbean Development Facility	20,000	(7.7)
Borrowings from multilateral institutions	12,500	(4.8)
Grants from multilateral institutions	1,000	(0.4)
Grants, other	1,856	(0.7)
Total	153,286	59.1
Grand total resources	259,135	100.0

These resources are distributed as follows:

	<u>Amount</u>	<u>% of total</u>
Capital and reserves	41,946	16.2
Regional market borrowings	14,750	5.7
Institutional borrowings	36,631	14.1
Donor contributions	57,837	22.3
Donor interest free loans	4,167	1.6
Donor loans at interest	55,926	21.6
Trust resources	25,022	9.7
Other	22,856	8.8
Total	<u>259,135</u>	<u>100.0</u>

and come from the following countries/institutions:

	<u>Amount</u>	<u>% of total</u>
<u>Members</u>		
Canada	33,869	(13.1)
United Kingdom	20,998	(8.1)
Venezuela	41,082	(15.9)
Colombia	8,610	(3.3)
Trinidad and Tobago	18,405	(7.1)
Borrowing members (excl. T & T)	<u>21,819</u>	<u>(8.4)</u>
Total	<u>144,783</u>	<u>55.9</u>
<u>Non-member donors</u>		
Federal Republic of Germany	9,026	(3.5)
USA	66,900	(25.8)
Other	<u>795</u>	<u>(0.3)</u>
Total	<u>76,721</u>	<u>29.6</u>
<u>Institutions</u>		
World Bank	20,000	(7.7)
IDB	13,500	(5.2)
EIB	<u>4,131</u>	<u>(1.6)</u>
Total	<u>37,631</u>	<u>14.5</u>
Grand total	<u>259,135</u>	<u>100.0</u>

Financing approvals to borrowing members at 31 December 1978 were as follows:

	<u>Total amount US\$ '000</u>	<u>% of total</u>	<u>% to the LDCs</u>
Agriculture (excluding agri- culture feeder roads)	54,011	30.0	
Industry	32,984	18.3	
Tourism	4,437	2.5	
Housing	15,212	8.4	
Infrastructure (including feeder roads at \$12,200)	66,775	37.1	
Student loans	2,633	1.5	
Other	<u>4,000</u>	<u>2.2</u>	
Total	<u>180,052</u>	<u>100.0</u>	<u>58.1</u>

The lending emphasis has been to the public sector with 96 per cent of approvals being to that sector. Further details on the lending program are given in Appendices I and II. The LDCs with 13 per cent of the population of the English-speaking Commonwealth Caribbean (the borrowing members) are the beneficiaries of 58 per cent of the total financing approved by CDB. Moreover, the LDCs obtained 78.5 per cent of the soft funding approvals, even though 15 per cent of soft funds have gone to the non-LDC borrowers through the special arrangements of the Caribbean Development Facility created by the Caribbean Group for Co-operation in Economic Development. Nevertheless the CDB has been successful in mobilizing external financial resources to develop the economies of the Commonwealth Caribbean. These countries contribute approximately 13 per cent of the Bank's resources and are so far the beneficiaries of all the resources approved for financing. Within this group, the LDCs have contributed only 1.5 per cent of the Bank's resources as at 1978 while they are the beneficiaries of 58 per cent of the financing approved by the Bank.

The micro-member states

The ten islands (or groups of islands) of Antigua, British Virgin Islands, Cayman Islands, Dominica, Grenada, Montserrat, St Kitts/Nevis/Anguilla, St Lucia, St Vincent and the Turks and Caicos Islands are together with the larger mainland territory of Belize considered as the LDC members of the CDB with 13.4 per cent of the total population of the regional grouping.

The territories are at various stages of constitutional development. Grenada, Dominica and St Lucia have attained political independence while St Vincent, Antigua and St Kitts/Nevis/Anguilla are States in Association with the United Kingdom and having full responsibility for internal affairs, but with the UK government having responsibility for external affairs and defence. Belize is still a self-governing British crown colony anxious for independence but hamstrung because of territorial disputes between itself and neighbouring Guatemala and hence a dependence on the British defence umbrella. The other territories are crown colonies and have not indicated any desire to change their constitutional status.

These islands are extremely small in land area, in population and in total output. They range between 98 and 750 sq. km and they have populations between 6,000 and 112,000 and Gross National Products between US\$8 million and US\$57 million.² Even if they were combined into one, they would be very small by any standard, having a total population of less than 570,000 people, a land area of 3,600 sq. km and GNP of under US\$300 million.

As a consequence of their small size, certain characteristics emerge:

- (i) They have a very limited range of natural resources and are thus hampered in the extent to which they can develop on a domestic base. Even agriculture is restricted as implied by the high population density per unit of arable land which ranges between 200 and 750 per square kilometre (for those with such data).
- (ii) Their economies are very open and they are 'price takers' in both their import and export trade.
- (iii) They are highly specialized economies with very limited ranges of output and exports based essentially on primary products. This makes them most vulnerable to world market price fluctuations for a mere handful of commodities and disaster is frequently behind each effort to achieve more from the area of specialization; they have only marginal ability to adjust to changes in demand for their specialized exports. Add to this their susceptibility to natural disasters such as hurricanes, droughts and earthquakes and we get a rather discouraging picture.
- (iv) They have very narrow local markets (in spite of market co-operation amongst them and their larger neighbours) and thus they have little industrialization and little scope for import substitution on which to start such industrialization. Most other developing countries with their level of per capita incomes even lower, are industrially much more advanced than they are.

²GNP data not available for the British Virgin Islands and the Turks and Caicos Islands.

- (v) They have a limited range and amount of skilled manpower and, even when efforts are made to increase and improve these, they frequently experience difficulties in providing reasonably remunerative jobs for those who become skilled, with the result that they lose those skills to more developed countries.
- (vi) The diseconomies of small size result in inefficient infrastructure and administrative and social services because of their inordinately high per capita costs. Yet, communities cannot expect to function without these facilities at certain minimum levels in the competitive and widely informed world of today. Regardless of what efforts they may put into attempts to find appropriate technologies for the production of goods and the delivery of public services, minimum conditions of service cannot be economically met in many cases.

The basic characteristics outlined above are generally associated with high and growing levels of unemployment and under-employment. Private sector activity is incapable of absorbing the unemployed. Generous tax and other incentives offered in an effort to stimulate additional private investment not only fail in their employment objectives, but also result in fiscal burdens to provide infrastructure and other services without commensurate revenues to government since there is no real linkage effect to create taxable activity. In their efforts to alleviate the unemployment situation, and to maintain existing services at minimum levels, the governments find that they worsen their already precarious fiscal positions even though they have unusually high tax ratios, with the current revenues in the seven East Caribbean Common Market countries all exceeding 21 per cent of GNP at market prices. Little investment goes on apart from public investment and there are no public savings to contribute to the public investment projects. The public debt climbs, and inability to service the debt will soon arise if the debt terms are not made softer.

Many of the territories no longer depend upon current budgetary support but all are still dependent on the UK government for contributions to their capital programs, particularly in the areas of infrastructure and social services. Other donors, notably Canada, also contribute on

grant terms to the capital programs of the territories. Statistics on donor activities are too limited to permit a quantitative discussion in this paper, and original research would not be possible given the time constraint.

It was recognized that investment had to be raised in the territories, but with a weak private sector oriented mostly towards distribution activities, government was seen as the necessary prime mover in the development process even within what is traditionally regarded as the domain of the private sector. The weak fiscal positions and problems of resource mobilization (referred to in the next section of this paper) combined with the fledgeling efforts at regional co-operation, made it apparent that an institution such as the CDB should be created to supplement existing sources of development financing. The success of that move is illustrated in the CDB resource mobilization and lending programs.

However, many governments feel that the creation of the CDB has caused a reduction in the level of aid that they have been receiving. This feeling may have been generated by the recognition that the two traditional aid donors, Canada and the UK, are amongst the largest contributors to CDB's resources. The donors have emphatically denied these allegations as they continue to dispense capital assistance on a bilateral basis. The real problem may lie in the limited absorptive capacity of the territories, using local skills in identifying, preparing and implementing projects, and not in a scarcity of capital resources. Yet purchasing those skills at international prices is costly and the repercussions can put strain on the costs of running the civil service.

Problems of resource mobilization

Regardless of the view that might be taken on the interposition of an institution such as the CDB, the facts seem to favour some form of multilateral institution to carry out functions of financial intermediation for the region. This is because, *inter alia*:

- (i) The countries are too small and poor to develop quickly the knowledge and skill to tap the international capital markets. Even if they were able to tap the market, the cost would be prohibitive for the small loans they would require

from time to time. Any sizeable market loans would cause bunching in their debt service which would aggravate the well-known problem of heavy debt burdens caused by short to medium term loans at high interest available on the international markets.

- (ii) They suffer serious disadvantages even in making use of more remote non-regional multilateral sources of development finance which, in any case, find it uneconomic to deal with the necessarily small projects in such economies.
- (iii) More and more bilateral donors are moving towards international development assistance through multilateral institutions.
- (iv) Indications are that the move towards political independence is likely eventually to result in reduced bilateral funding in any case.
- (v) Pooled efforts at raising external resources can be more effective with the higher concentration of skills in a regional institution.
- (vi) The transfer of experience of regional personnel with specialized knowledge of the region to other nationals of the region is facilitated and becomes self-developing.

The existence and operation of an institution such as CDB does not, however, eliminate the problems of mobilization of external resources. In fact decades of dialogue in the international community and academia have had little influence on many of those problems. Some of them are outlined below along with some indications of their implications for the micro states.

Because of the practice of using per capita income as a criterion to determine which countries and at what terms such countries should be receiving concessional funding, the CDB, in raising funds on behalf of its members which have a relatively high per capita income as compared with some other developing countries, has not been able to mobilize resources on the softest terms possible despite the fact that these territories need such resources for reasons mentioned earlier in this paper. Thus the IDB treats the CDB LDC member

countries somewhat like a half-way house between its poorest (Group D) and next poorest (Group C), lending funds to CDB at 1 per cent per annum during a grace period of 5 years and 2 per cent per annum thereafter with a final maturity of 25 years. Its Group C countries qualify for loans at 2 per cent per annum with a final maturity of up to 35 years including a grace period of up to 8 years. For its Group D countries, the lending terms are 1 per cent per annum during a grace period of up to 10 years and 2 per cent per annum thereafter with a final maturity of up to 40 years.

Similarly, the World Bank in its existing loan to CDB did not consider the LDCs as eligible for IDA-type financing. In the loan of \$20m. to CDB only \$3m. usable by CDB in lower income LDCs was lent at a 'concessional' rate of $4\frac{1}{2}$ per cent with a grace period of 7 years within a repayment term of 25 years. The terms of IDA lending to eligible countries (countries with per capita GNP not exceeding US\$520 at 1975 values at the time the loan was negotiated) are made at a service charge of three-quarters of 1 per cent per annum with a grace period of 10 years, and amortization during the subsequent 40 years at a repayment rate of 1 per cent per year for 10 years and 3 per cent per year for the remaining 30 years. Thus the territories with an average per capita GNP of about US\$580 in 1976 or 11 per cent above the 1975 ceiling for IDA eligibility had interest costs at several multiples of the marginally worse off eligible countries and a term to maturity and a grace period at half of those available to IDA eligible countries.

Most donors and multilateral institution lenders insist on rigid project evaluation criteria. While these procedures have their usefulness the inflexibility with which these rules are applied is sometimes inimical to development. The under-staffed and under-equipped civil service have not got the capacity to prepare projects using these criteria. The alternative is to seek consultants but these governments can hardly afford these services and even where these services have been obtained this has not always insulated the project from the ravages of inflationary cost over-runs or ensured optimal designs and well-functioning projects. Apart from the financial cost of these exercises, there is the problem of time delays arising from rigid project preparation criteria and the eventual escalation in project costs. This problem has been ameliorated at the CDB by the practice of using the same officers to prepare, appraise and supervise projects all within acceptable guidelines.

Indeed the question of rigid project evaluation criteria has led one famous economic commentator to remark that if such criteria had existed and been applied in the USA two centuries ago that country might not have been the powerful nation that it is today. Further, one experienced Third World ex-Prime Minister has seen the contribution of these rigid guidelines as unnecessary obstacles developed in the postwar era and do more to hinder the hasty and successful implementation of projects than to contribute to their successful execution.

The middle-of-the-road position is that these criteria are useful in assisting countries in developing consistent, feasible and optimal programs that will promote development, are self-liquidating and will not instead place undue burdens on the economies. However, flexibility instead of rigidity should dictate judgment, particularly in the evaluation of infrastructure projects in states where governments are playing a catalytic role in development, and where benefits cannot really be accurately foreseen. Thus in the absence of data and knowledge of the future, governments' attempts to develop an infrastructural base on rational grounds that will attract private sector involvement and induce development should not be thwarted by the rigid application of these criteria.

Donors make funds available to the CDB for pre-specified purposes and on pre-specified conditions. Like the evaluation criteria, these conditions are sometimes rigidly maintained. Thus one gets instances of loans being proposed to specified groups with quantified characteristics, for example housing loans to directly benefit households earning less than US\$1,500 per annum or agriculture and industry loans to enterprises or direct beneficiaries with assets of less than US\$100,000. First, such stipulations do not recognize that the characteristics of borrowing member countries vary and any condition with universal applicability poses problems for the administration of the resources and denies the benefits to legitimate groups with potential for development which can indirectly help those people used as target beneficiaries, for example employment and nutritional levels. For instance, 2 hectares of agricultural land in one territory may be valued at \$100,000 while in another territory 2,000 hectares would be so valued. In these cases the owner with 2 hectares of land with much less net income capabilities would be denied the loan while in another territory the owner with 2,000 hectares would be

entertained. Second, such stipulations are sometimes maintained throughout the life of the loan and do not recognize the influences of inflation, particularly where loans are subject to long commitment periods or where recycling of repayments is allowed.

These conditions and pre-specified uses for loan proceeds in most cases do not emerge from an examination of the total needs of the various countries but at most times from a 'benevolent idea' of the donor. Thus in the Caribbean now it is the 'idea' that resources should be channelled into agriculture; therefore, most donors specify that their funds are to be used in that sector, frequently to the exclusion of others. This does not recognize that while that sector is in fact worthy of development the people may not be interested, at least temporarily, in promoting and contributing to its development. It is also sometimes forgotten that the development of one sector most often requires the complementary development of other sectors. Further, when donors move from one sector in vogue to another, they upset the planning in the beneficiary countries and frequently leave some sectors badly under-financed. In the territories discussed in this paper, the social services sectors of education and health are being pinched by this sector-of-preference system. CDB as a small institution is not able to cover all sectors, and the countries as stated earlier do not generate enough domestic resources to fill the gap created.

The operating procedures of the multilateral institutions in the disbursement of loan proceeds do not in some cases contribute as fully as the available funds might otherwise do to the development needs of the eventual borrower. One institution in particular only specifies the currency of the loan at the time of disbursement. This has implications for the country's planning as the effective rate of interest may be much higher than the nominal rate. Very important is the fact that these institutions have been borrowing and on-lending hard currencies that are subject to rapid appreciation against the US dollar to which all regional member currencies are pegged. Apparently this trend will continue even if it is with reduced effect, as these institutions continue to borrow in currencies that have low nominal interest rates. Given the inverse relationship between inflation and interest rates and currency parity and the expected higher rate of US inflation as compared with many European lending countries, it would mean that

these institutions will continue to mobilize hard currencies. The trade-off between the reduced rate of interest and the rate of currency appreciation, though beneficial to the institution (particularly if the interest is not fully passed on), certainly does not benefit the developing borrowing country which is the eventual user of the resources and bearer of the exchange risk.

Further, these institutions release funds on a reimbursement basis. But this practice places extra costs on borrowers to the extent that they have to obtain expensive bridging finance before reimbursement. The use of an advances system with appropriate accounting could significantly assist in solving this problem while still maintaining sound development financing principles.

Problems of allocation

The problems of allocation fall into two parts. The first part deals with the operational problems caused by the scarcity of skilled personnel in the territories and the particular configuration of the geography of the area which the CDB serves. The second part examines the borrowing members' attitudes to debt.

Because of the small size of the territories, the absence of skilled personnel and the scattered insular features of the borrowing member territories, the CDB's operating cost is high in terms of the value of loans made. Obviously, these costs have to be passed on to the borrower, but some donors recognize this difficulty, and provide the CDB with resources to augment its Technical Assistance Fund which it is expected will help defray some of these expenses on behalf of the borrowers.

The geographically scattered distribution of the CDB members results in double and even multiple intermediation on a micro-scale with attendant problems. Thus a multi-lateral institution may get resources from the international money market, use the proceeds to make a loan to the CDB, with the CDB in turn providing a line of credit to a national development finance corporation (dfc). The dfc uses the proceeds of this line to on-lend to a co-operative which eventually makes a sub-sub-sub-loan to the member of the co-operative — the eventual user of the resources. At each stage the intermediating institution has to put a margin to meet its operating cost. That percentage margin should

increase at each level of intermediation because of the smaller size of the project being dealt with, the smaller volume of funds being handled and the high cost and indivisibility of fixed overheads. Most of the intermediaries down the line do not charge the economic margins because of the fear of increasing the cost of funds and making their institutions un-competitive. This has contributed to financial problems for many of them, or sometimes their demise.

But the implicit increased financial cost is not the only negative aspect of the multi-level intermediation process. Such a process increases the extent of conditionality as each institution has to pass on the conditions received from the previous intermediary plus its own conditions dictated by its own regulations or its perception of the development needs of the country and the project or sub-project. This exercise adds increased rigidity to the use of funds, is time-consuming and wasteful of human resources to the extent that at each stage very scarce skilled personnel have to supervise and ensure that the conditions are maintained and that the necessary reports are filed and reviewed.

One condition which highlights the difficulties experienced with conditionality is procurement. Frequently donors specify, sometimes in minute detail, not only where goods and services must be procured but also the procedures for procuring. One has to advertise in international newspapers, wait for bids to come in and then evaluate within pre-specified criteria. The intention is itself not bad but the results can be. Theoretically, this procedure helps to ensure that all donors have the opportunity to bid and in so doing gives borrowers the prospect of obtaining competitive prices. In the case of the smaller Caribbean territories this does not always operate in this way. Because of close historical links, problems of small size, and the usual resistance to change, there is a built-in bias to procure goods from traditional sources, since (a) personnel are familiar with servicing and operating the equipment, and (b) it allows the utilization of existing inventory and spares. With this virtual monopoly situation, suppliers can bid up their prices. It has also been clear that the prices of equipment to these states are higher on the average, largely because of small order size.

More generally is the procurement condition that nearly forbids these mini-states from utilizing the best

deals possible, including procuring second-hand equipment which could provide the more appropriate technology. To comply with several common procurement conditions is delaying, costly and wasteful of human effort.

The average and marginal propensities to consume in most of the LDCs are quite high, leaving investments to be financed from loans, grants and to some extent migrants' remittances. This is certainly not a desirable situation nor one that can continue in perpetuity. Even with this situation many of the governments do little to encourage and mobilize domestic savings and to capture the benefits deriving from projects even to service the project's debts. One gets instances of governments borrowing 100 per cent of project cost even before making attempts to mobilize local funds. After this is done governments resist the idea of increasing tariffs to try to capture the benefits even on very profitable projects both to meet operating expenditures and to provide a reserve to minimize future loan requirements for replacement and expansion. In fact in some utility legislation the intention is to charge tariffs that will allow the utility to just break even, that is to meet cash expenses only.

But that has serious long-run economic implications for any country. First, it reduces the country's degree of self-reliance, makes it too dependent on debt and reduces its capacity for growth. Second, to the extent that investments do not require foreign exchange to cover the total costs, provision of a foreign exchange loan to cover more than the foreign exchange costs largely provides foreign exchange to finance imported consumption. Where a stream of foreign exchange costs associated with a project exceeds the stream of foreign exchange benefits, a potential balance of payments problem is being concealed. However, proper programming by developing countries could make this kind of financing, which is akin to program lending, cover certain adjustment processes and financing gaps that are essential to economic transformation.

In general it is the view that governments should look at the creation of debt as a serious activity and in so doing should take into account such factors as:

- (i) the possibility of mobilizing local funds to complement foreign borrowings;

- (ii) the debt servicing capacity of the country in relation to output, foreign exchange earnings and government revenues;
- (iii) the costs of foreign borrowing to take into account the costs arising from conditions imposed, interest costs and currency appreciation;
- (iv) the feasibility of projects to service themselves both in total earnings and foreign exchange;
- (v) cash flow budgeting and scheduling of debt to take care of absorptive capacity and to prevent bunching of debt services; and,
- (vi) the extent to which policies and measures relating to projects can be used to capture benefits and mobilize domestic savings.

Obviously the CDB monitors these areas very closely. But it would certainly help if the governments did so in addition, as it would reduce burdens on future generations.

Possible solutions

The solutions to the problems of external financing for small states suggest themselves very readily. Most worthy of highlighting include the following:

- (i) A reduction in the extent and rigidity in the conditions attached to loans. It should be understood that borrowers and intermediating financial institutions are as interested in the development of their countries and clients as the donors themselves. Therefore conditions should be imposed taking into account the peculiar circumstances within which they operate.
- (ii) It is generally recognized that the concept of national income per capita is not a fool-proof indicator of the standard and quality of life of a country's population. No other indices, unfortunately, are available. While efforts should be made to develop such indices, in the meantime the per capita income criterion should be used reservedly and if used at all should be adjusted to reflect the international comparability

of incomes and then applied to determine the softening of funds on a graduated basis. The size, openness and exposure to risk of the beneficiary country should never be ignored in applying per capita criteria. Hence the present practice of designating countries with per capita incomes of up to \$x in the category to obtain soft resources and other countries with per capita incomes above \$x in a category to receive hard resources is unduly discriminatory. Instead a graduated scale should apply, say, using such a pattern:

<u>Income</u>	<u>Interest rate</u>	
$\$(x - 200)$	$= \gamma\%$	at an appropriate term and grace period
$\$(x - 100)$	$= (1 + \Delta)\gamma\%$	at a gradually reducing term and grace period
$\$x$	$= (1 + 2\Delta)\gamma\%$	ditto
$\$(x + 100)$	$= (1 - 3\Delta)\gamma\%$	ditto
$\$(x + 200)$	$= (1 + 4\Delta)\gamma\%$	ditto

Varying degrees of size, purchasing power and other constraints on the economy could then be used to modify the slot into which a given country should be fitted.

- (iii) Multilateral lending institutions should endeavour to provide borrowers with float facilities to minimize debt service and operating costs and to specify in advance to the borrower the currency within which the loan is to be denominated so that the borrower can determine very early whether the loan is wanted on these terms.

Donors should consider more seriously the case for program loans on long term which could do much to alleviate the problems of absorptive capacity and economic transformation, including adjustment to the vagaries of demand affecting the few commodities on which the small developing countries depend for income, employment and exports as well as to cushion the effects of critical price increases of essential imports.

The borrowing governments, too, should endeavour to treat the incurrence of debt as a serious matter and to consider borrowing needs and terms very carefully.

Developing countries including the CARICOM LDCs are endeavouring to become more economically self-reliant. In pursuing that objective they have been advocating trade rather than aid and hence the easing or removal of such protectionist devices as tariffs, quotas and other restrictions. There is no doubt about it that procurement conditions attached to so-called aid from developed countries, whether in the form of loans or grants, creates trade for these developed countries. These developed countries can so reciprocate and help fulfil the aspirations of the developing countries by letting the amortization of aid create trade for developing countries. Thus where a developing country has received aid on loan terms from a developed country to procure goods from that developed country, then in the repayment of this aid the developed country should ensure that it takes more of the goods and services of the developing country, particularly where there is a trade deficit between the two countries. In this way just as the giving of aid creates trade for developed countries the repayment of this aid would create trade for the recipient developing country.

Appendix I

Distribution of loans, contingent loans and equity approved (net) by sector and by funds, 1970-78

	Ordinary capital resources \$'000	Special dev. fund \$'000	Other special funds \$'000	Total \$'000
<u>National lending institutions</u>				
Agricultural credit	8,633	3,783	13,980	26,396
Industrial credit	5,413	2,279	2,725	10,417
Small industry credit	—	4,244	157	4,401
Housing (mortgage finance)	5,916	—	—	5,916
Student loans	—	2,633	—	2,633
Total	19,962	12,939	16,862	49,763

Direct lendingAgriculture

Livestock	317	872	2,457	3,646
Estate and farm development	396	157	113	666
Banana development	4,613	2,568	—	7,181
Processing	92	898	—	990
Marketing	—	2,124	—	2,124
Sugar	—	520	—	520
Food & nutrition — program loan	—	—	11,000	11,000
Other	272	1,208	8	1,488
Total	5,690	8,347	13,578	27,615

Industry

Sugar factory	—	1,500	1,500	3,000
Footwear	—	153	258	413
Plastic manufacturing	—	—	446	446
Industrial estates	4,194	6,733	97	11,024
Special development activities — program loan	—	—	3,000	3,000
Other	—	215	68	283
Total	4,194	8,603	5,369	18,166

Tourism

Cruise ship pier	635	45	—	680
Hotels	1,586	38	631	2,255
Other	360	494	648	1,502
Total	2,581	577	1,279	4,437

Education & human resources —
program loan

—	—	2,000	2,000
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Health & population — program
loan

—	—	2,000	2,000
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Infrastructure

Ports	2,362	21,992	3,380	27,734
Electricity	—	5,153	—	5,153
Feeder roads	—	11,130	1,047	12,177
Other roads and bridges	1,096	652	129	1,877
Water supplies	301	2,220	4,261	6,782
Airports	200	225	—	425
Sea transport	5,957	145	—	6,102
Air transport	368	5,500	—	5,868
Housing (other than mortgage finance)	1,877	—	7,419	9,296
Other	—	622	35	657
Total	12,161	47,639	16,271	76,071

Total direct lending	24,626	65,166	40,497	130,289
Net grand total	44,588	78,105	57,359	180,052

Appendix II

Approvals of loans, contingent loans and equity (net) by country and by fund, 1970-78

(US\$'000)

Country	Ordinary capital resources	Venezuela Trust Fund	Special Develop- ment Fund	Agricul- tural Fund	Housing Funds	Counterpart Contribution Fund	Other special funds	Total	% of total
Antigua	802	366	3,411	630	642	121	—	5,972	3.3
Bahamas	2,300	3,248	700	—	—	—	—	6,248	3.5
Barbados	5,482	446	4,442	—	—	—	1,515	11,885	6.6
Belize	4,385	160	21,570	7,402	1,447	550	—	35,514	19.7
British Virgin Islands	360	—	1,738	300	—	—	—	2,398	1.3
Cayman Islands	804	—	3,012	500	301	—	—	4,617	2.6
Dominica	902	—	9,092	1,222	1,660	1,040	—	13,916	7.7
Grenada	107	113	3,380	516	975	403	—	5,494	3.1
Guyana	4,839	2,237	1,085	—	—	—	4,553	12,714	7.1
Jamaica	12,345	4,396	—	—	962	—	12,000	29,703	16.5
Montserrat	—	—	1,132	223	86	33	—	1,474	0.8
St Kitts/Nevis/Anguilla	1,490	259	4,866	248	285	274	2,000	9,422	5.2
St Lucia	3,068	—	8,329	1,015	—	366	900	13,678	7.6
St Vincent	488	1,605	6,803	924	943	493	—	11,256	6.3
Trinidad & Tobago	891	—	—	—	—	—	—	891	0.5
Turks & Caicos Islands	368	—	711	—	—	—	—	1,079	0.6
Regional Projects	5,957	—	7,834	—	—	—	—	13,791	7.7
Net total	44,588	12,830	78,105	12,980	7,301	3,280	20,968	180,052	
% of total	24.8	7.1	43.4	7.2	4.1	1.8	11.6		100.0

Chapter 14

Economic instability in small countries: macro-economic responses

Ross Garnaut

Small countries tend to be more closely integrated into the international economy than large countries, and they are more vulnerable to economic instability transmitted from abroad. Fortunately, several features of small countries facilitate both the technical application and political implementation of macro-economic stabilization policies. On balance, there is no reason to expect greater economic instability in the domestic economies of small countries, so long as intelligent macro-economic policies are applied.

This paper examines the main links between smallness and domestic economic instability. It is concerned with identifying relevant concepts and issues rather than with empirical analysis. The occasional casual empiricism draws mainly on the experience of Southwest Pacific developing countries.

The paper commences by introducing the economic characteristics and links with the international economy that cause smaller economies to receive stronger external impulses to instability. It explores three aspects of the resulting instability in economic conditions: general inflation; short-term cyclical fluctuations in the level of economic activity; and variations in the rate of growth over longer periods. The paper then discusses ways in which domestic economic policies can insulate the economy to some extent from external instability. It concludes with some general remarks on the links between smallness and instability.

External instability and small economies

Many considerations other than size influence vulnerability to external instability, but there are good reasons

for believing that size is important, especially at the level of the very small economies that are subjects of this book. Small countries are subject to greater pressures to instability from external sources both because they tend to be more closely integrated into international markets for goods, capital and labour, and because their transactions with the international economy tend to be subject to greater fluctuations.¹

There are two general reasons why the foreign trade share of gross domestic product tends to be very high in small countries. All other things being equal, small countries have more skewed resource endowments than large countries. Small countries which possess natural resources are likely to have strong comparative advantage in, and to specialize strongly in production and export of a small number of commodities that use these resources intensively. In addition, the overhead costs of information and skills required to establish any new industry and also technologically-based economies of scale limit severely the number of industries producing tradable goods in a small country.

The two factors introduced in the preceding paragraph also tend to cause export specialization to be relatively strong in agricultural products, minerals and tourist services rather than in manufactured goods, and to be heavily concentrated in a small number of commodities. The tendency for economies of scale to be more important in manufactured goods production than in primary industries further strengthens the tendency towards strong export specialization in natural resource-based industries. Primary commodity prices are more unstable than manufactures on world markets, and the concentration of export production in a few commodities increases instability in total export income.

There are economies of scale in transport and communications at low levels of activity. As a result, the foreign economic transactions of a small country tend to be concentrated on a limited number of overseas countries. This is most obviously true for goods trade, where economies of scale are very important for small-scale long-distance shipping, but it is also relevant to capital and labour movements. This geographic concentration of trade makes the

¹See P.J. Lloyd, *International Trade Problems of Small Countries*, Durham, Duke University Press, 1968, especially Chapter 3, for a discussion of some of these issues.

small country vulnerable to fluctuations in the particular foreign economies with which it has strong links.

These various considerations make small economies especially vulnerable to cyclical fluctuations in the external economy. In addition, small countries are vulnerable to less frequent but potentially more damaging permanent changes in a country's terms of trade. These may be associated with large changes in the structure of the world economy (such as those associated with the realization of the imminent exhaustion of world reserves of some mineral) or changes in the pattern of protection for domestic production in major economies.

When economic activity is concentrated in a few industries, as in the small economy, there are likely to be pronounced economic fluctuations independently of any special influence of external factors. Investments in some industry may be large in relation to the national economy, and so may temporarily generate high levels of economic activity while they are being installed, and commonly bring on recession upon the completion of construction. In the important case of large-scale investment in mineral exploitation, it is common for there to be boom conditions during the construction phase of a new project, high levels of activity through the period during which the resource is being depleted and then a large absolute decline in economic activity upon exhaustion of the mineral deposit.

Although small economies receive stronger external impulses to instability, a large part of any variation in domestic demand is channelled quickly into imports of goods and services, thus reducing its impact on domestic economic activity. This moderates without removing the greater instability in small economies resulting from fluctuations in external economic conditions and in private domestic investment, and probably makes small countries less vulnerable than large countries to domestic recession or inflation arising out of changes in government fiscal policy. (This reduced vulnerability to policy-induced fluctuations in activity is balanced by greater vulnerability to policy-induced fluctuations in the balance of payments.)

Types of instability in small economies: inflation

The theory of the international transmission mechanism tells us that, in a world of irrevocably fixed exchange rates,

each country, whether it is large or small, sooner or later receives in its own price level any changes in the international price level. It also tells us that in a world of freely floating exchange rates, each country experiences that rate of inflation which is associated with its own rate of domestic monetary expansion, which may be quite different from other countries.

When the exchange rate is fixed, international inflation is transmitted fully to each country through one or other of several mechanisms: direct price effects; real wage rigidity acting on direct price effects; the incomes effect of variations in the current account of the balance of payments; and the monetary impact of the balance of payments.² These four mechanisms (and some minor mechanisms), are each of some importance in all economies. They are alternatives to each other, and their respective contributions to domestic inflation sum to the international rate of inflation. The four mechanisms are highly interdependent, and in some respects represent different aspects of the same phenomena. Small economies are likely to be affected more strongly through the first and second mechanisms, which tend to operate with shorter lags. Large economies may be affected more strongly through the third and fourth mechanisms. The relative importance of the various mechanisms, and the timing of the importation of overseas inflation, is affected considerably by the stance of domestic monetary policy.

When the exchange rate is floating, an acceleration in the rate of overseas inflation generates a tendency towards surplus in external payments, which precipitates an appreciation of the domestic currency. The amount of appreciation tends towards the proportionate increase in the international price level. The appreciation will prevent transmission through each of the four mechanisms through which international inflation is transmitted to the domestic economy when exchange rates are fixed.

These are the polar extremes. In the one, each country fixes its exchange rate and then accepts the inflation

²For an interesting review of the literature, see Walter S. Salant, 'International transmission of inflation' in Lawrence B. Krause and Walter S. Salant (eds), *Worldwide Inflation, Theory and Recent Experience*, Washington, Brookings Institution, 1977, pp.167-242.

that is generated by the rate of monetary expansion in the world as a whole. In the other, each country fixes its domestic rate of monetary expansion and accepts the exchange rate changes that result from any divergence between its own rate of monetary expansion and that in the rest of the world.

These conclusions are drawn from simple theory. In reality, some qualifications must be made to the theory of the international transmission of inflation under fixed and floating exchange rates. Several influences may cause inflation rates in different countries to diverge under unalterably fixed exchange rates, and more generally to affect the relationship between changes in price levels and exchange rates across countries. Changes in protection levels, or in the degree of monopoly or behaviour of monopolists producing or trading in internationally tradable goods, drive a wedge between the rate of increase in the price of tradables at home and abroad. The rate of change of prices in various countries may also diverge as a result of different rates of productivity growth in the non-tradables sector, different rates of growth of real wages (whatever the cause), changes in the terms of trade, changes in patterns of international capital flows, the discovery and use of major natural resources, changes in the relative incidence of taxation, or variations in the supply and demand for various non-tradable commodities.

The theory of the international transmission mechanism applies equally to both large and small economies, although it does allow that international inflation is transmitted more quickly under fixed exchange rates to the small than to the large economy. The various qualifications to the theory, introduced above, are quantitatively less important in the small than in the large economy.

The small economy imports very quickly the international rate of inflation if it maintains (on average) a fixed exchange rate against other currencies. But the monetary authorities can insulate the small economy from inflation in the rest of the world simply by raising the foreign exchange value of its currency by amounts corresponding to the international inflation rate. This is possible only if *nominal* domestic expenditure is adjusted downward when the exchange rate is raised so as to maintain *real* expenditure at levels that are consistent with balance in external payments.

There is more likely to be monopoly in the foreign trading sector in small than in large economies, and where this is important, exchange rate revaluation may not be reflected fully in the domestic price level. However, it seems more likely that monopolists will use their power to maintain high (presumably profit-maximizing) and more-or-less stable mark-ups on the cost of imported goods than mark-ups which vary with the exchange rate.

Economic effects of fluctuations in domestic spending power

Under this heading we discuss two types of instability in domestic economic activity: cyclical fluctuations, and variations in rates of growth over longer periods. These two types of fluctuations have similar economic effects, although their origins are different and they require different policy responses, as discussed separately in the next following sections.

Improvements in the terms of trade and increases in domestic production with the establishment of a new industry expand the maximum level of real expenditure that is sustainable within the domestic economy. This expansion in real spending power has important effects on the balance of payments, the labour market, and the profitability and level of output in other industries.

The balance of payments is affected by such changes to the extent that increases in real expenditure differ from the increase in real spending power. To illustrate the important relationships, we focus on the changes in real spending power and real expenditure that would be associated with a large mineral investment. When a mine is being built, the increase in real spending power is made available by the capital inflow associated with investment. Once production has commenced, the increased export income, reduced to the extent that there are payments overseas to suppliers of goods and services, provides an increase in real spending power. This is made available as increased incomes for various nationals (including the government), plus increased cash balances held by foreigners within the domestic monetary system. There is an increase in domestic expenditure to build the mine itself, and from the spending of incomes of persons and firms engaged in construction. The general increase in economic activity raises government revenue, and if part or all of this is spent there is a further increase

in domestic expenditure. After the commencement of production and export, real expenditure is raised by the spending of increases in incomes flowing from the project (or indirectly by expansion of bank credit that has its origins in the increase in incomes). The behaviour of the government, usually the principal domestic recipient of income from mining in a small economy, is crucial in determining whether the increase in expenditure falls short of, equals, or exceeds the increased spending power to the economy, and so whether the balance of payments impact is positive, neutral or negative. There is a reasonable presumption that governments are better able to meet demands for public expenditure from revenue when revenues are larger, and that the balance of payments is stronger in both during construction and after commencement of production.

Increased domestic expenditure raises demand for the products of local industries outside the mining sector. The manner in which this affects the profitability and level of production in various local industries depends upon the combined effects of economies of scale in production and possible increases in domestic labour costs.

To analyse the effects of increased domestic expenditure on labour costs, it is useful to distinguish three separate types of labour market conditions. First there is the dual economy, with a village and a modern sector, within which the supply of labour to the modern sector can be expanded to meet any likely demand without causing labour to become scarce and wages to increase. This is the situation assumed in the Lewis and subsequent models of the surplus labour economy. We describe it as Case 1. Case 1 may have some relevance to Mauritius. Let us describe as Case 2 the dual economy within which more labour can always be induced to migrate from the villages to the modern sector, so long as expected incomes in the modern sector are increased. This would seem to be the relevant model in most parts of Melanesia. Case 3 is the fully monetized economy, in which the supply of wage labour is fixed independently of labour market conditions. This might possibly have been relevant to internal labour supply in New Caledonia during the nickel boom. The subsequent analysis focuses on Case 2, the most relevant to the small economies which are the subject of this discussion.

The effects of an expansion in aggregate demand on the domestic economy depend very much on whether wages are set freely in the market, and vary with changes in the supply of

and demand for labour, or whether minimum wages are set by governments. When wages are determined in the labour market, increased domestic expenditure raises the real wage level and induces migration from villages to the modern sector of the economy. Alternatively, when minimum wages are set by governments at higher levels than would otherwise apply, increased expenditure induces some additional migration to the modern sector (because of the increased probability that a migrant will find employment), but also reduces the rate of modern sector unemployment. It is possible that the increased expenditure will lead to the elimination of unemployment and that excess demand for labour at the official minimum wage will cause wages to rise.

It is often the case that the feeling of prosperity that accompanies the increase in domestic expenditure creates an environment within which wage-setting institutions are sympathetic to large wage increases, for reasons of 'equity', or in accession to pressure from wage-earners. This is an important possibility but it is not an inevitable consequence of boom conditions in the export industries. Where it results in increases in minimum wage levels, increased domestic expenditure may not reduce modern sector unemployment.

Total demand for non-traded goods produced outside the villages rises with increased domestic expenditure. Output of modern non-traded goods and services is likely to expand, and with it employment in that sector. Economies of scale are relatively unimportant in these industries, except perhaps in the smallest and most under-developed economies. When wages are set freely in the labour market, the price of non-traded goods is thus likely to rise with wages. The increase in wages within an unconstrained labour market may cause continued production to be unprofitable in some established export and import-competing industries in which economies of scale are relatively unimportant over the relevant range of output. When the labour market is constrained by effective minimum wage laws, however, there is no similar tendency towards contraction of some established industries.

The boom conditions associated with the construction of a mine (or with large improvements in the terms of trade) cause major shifts in the sectoral and industrial composition of economic activity. The increase in demand may cause investment to be profitable for the first time in some import-competing industries in which economies of scale are important. This effect will be most important where there is no

increase in the wage level (that is, when the labour market is constrained) and least important when there is a large increase in the domestic wage level. The overall impact of the increase in expenditure on economic activity and employment in various sectors is as follows. Output and employment in the modern (that is, non-village) non-tradables sector rises. Village population and production of goods and services fall. Output and employment in the modern tradables sector rises within some industries and falls within others. Total output and employment in the import-competing modern sector rises if the labour market is constrained and there is no increase in the official minimum wage, but may rise or fall if the labour market is unconstrained.

Some of these changes in the sectoral composition of economic activity will be perceived as 'problems', especially the decline in profitability and employment in some established industries within the modern tradables sector. More 'problems' will be perceived when the various mechanisms described above go into reverse upon completion of construction or upon exhaustion of the mineral deposit (or upon the reversal of an improvement in the terms of trade).

Special effects of and policy responses to cyclical fluctuations

Much of the spending power through the various phases of mineral exploitation is made available in the first instance to the government in the form of higher revenue. If the government spends the increased revenue as soon as it becomes available, some special economic problems can arise, beyond the general issues discussed in the above paragraphs. The capacity to implement government programs grows incrementally. (The same is true, although less obviously so, for private sector expenditure.) There is thus some possibility that large increases in public expenditure associated with the stepwise growth in revenue from the establishment of new major projects will be used wastefully. This can have a corrosive effect on the development effort beyond the purely economic loss involved in the wasteful use of financial resources.

Cyclical reductions in expenditure that derive from cyclical variations in the prices of exports may threaten the viability of new industries established by utilizing economies of scale that are only available at peak levels of demand. In some circumstances these reductions may

initiate a process of cumulative decline in economic activity.

Cyclical variations in expenditure also have important economic effects through the labour market. Real wage levels that seem to be justified at the height of domestic expenditure are too high for full employment to be maintained when expenditure levels are cyclically low. Wages are commonly (although not universally) rigid downwards, so that a large reduction in real expenditure can lead to intractable unemployment.

A third economic cost of large fluctuations in domestic demand is that they contribute to uncertainty in investment decisions (and so to increases in the supply price of investment) and to unemployment of a frictional and structural kind resulting from constant changes in the size of various industries.

Problems associated with the cyclical variation in demand can be managed if governments use their fiscal and monetary policy instruments to set total expenditure on a path of growth that is sustainable through the resource investment cycle and the external business cycle. This requires the accurate assessment of long-term trends in international markets, and their effects on domestic spending power, the setting of policy instruments to produce desired levels of expenditure growth, and the enforcement of these policy settings through periods in which official net foreign assets are rising strongly, against the inevitable political pressures to spend up to short term limits. There are difficulties in each of these three elements of successful stabilization strategy. And even if the government succeeds in maintaining aggregate expenditure on a path of more or less steady growth, there will inevitably be some variation in the components of total expenditure, which leads to unhappiness within groups that have not shared in general prosperity.

Policy responses to variations in rates of growth over longer periods

Large variations in rates of growth of spending power over longer periods may result from permanent changes in the terms of trade or from the timing of the establishment or closure of large industries. The best policy response to these variations is the financing of a steadier trend in

domestic expenditure, just as it is to cyclical fluctuations. But a much larger amount of financing is required and at least when changes in external conditions are the source of the fluctuations in growth rates, the financing needs are less readily foreseen.

The most important source of major variations in rates of growth over longer periods are those associated with the exploitation and exhaustion of large mineral deposits, and fortunately these are also the most readily foreseen. The achievement of steadier growth over a period that encompasses the depletion and exhaustion of a major minerals deposit in a small economy requires increased expenditure financed by overseas borrowings prior to mine construction, the accumulation of foreign financial assets during the depletion period, and the reduction in foreign financial assets after depletion.

But rarely will it be possible to remove completely the variations in rates of growth. When sudden changes in international demand conditions bring suddenly an era of high growth in the spending power of a small economy, there is no way of transferring expenditure back in time after the event. Similarly, a period of exceptional prosperity having arrived, its conclusion as a result of new changes in the international economy can rarely be foreseen. All that can be suggested to governments in small countries seeking to maintain economic stability is that they should be cautious about absorbing rapidly and fully into domestic expenditure increases in spending power made available by fortuitous changes in international markets. The most difficult situation arises when a small country's terms of trade deteriorate apparently permanently without expenditure restraint having been shown in earlier periods of greater prosperity; there is nothing it can do except adjust to a new industrial structure and lower standard of consumption.

Macro-economic management in small countries

At the most general level, the types of policies that are required to maintain economic stability in prices and in the rate of growth in economic activity are broadly similar for all countries, whatever their size. But the details of policies and problems of implementation vary greatly, depending on the characteristics of the economy within which they are to be applied. Here we discuss the implementation within small countries of policies designed to maintain low inflation and to avoid large cyclical

fluctuations in economic activity and variations in rates of growth over longer periods.

Exchange rate policy must be at the heart of any attempt in a small economy to achieve a domestic rate of inflation that is significantly different from, and in particular lower than, the rate of increase in prices in other countries. If a small country wishes to achieve a zero rate of inflation, it must raise the average foreign exchange value of its currency against other currencies at a rate equal to the average overseas rate of inflation. Gradual adjustments to the exchange rate will be more effective in achieving price stability than large discrete changes. These exchange rate increases are possible without external payments problems only so long as *nominal* expenditure levels can be reduced correspondingly.

When it is said that anti-inflationary policy can only succeed if nominal expenditure is kept down to levels that are consistent with balance in external payments at the desired high exchange rate, it means only that *real* expenditure must be as low as would have been required to maintain balance in external payments with a lower exchange rate and higher inflation, and no lower. There will be great political difficulties in achieving low inflation if the community expects growth in nominal wages or government expenditure independently of the rate of inflation. Similarly, there will be difficulties if producers in export and import-competing industries expect certain nominal levels of revenue or income independently of the purchasing power of money. It is a precondition for the success of anti-inflationary policies in small countries that there is relatively little 'money illusion' or 'exchange rate illusion', that is, that people assess the value of their incomes in terms of real purchasing power.

Fortunately it seems that smallness helps to remove 'money illusion' and 'exchange rate illusion'. Where an overwhelming proportion of cash expenditure within an economy is on imported goods and services, as in a small country, it is fairly obvious that the raising of the foreign exchange value of the home currency lowers more or less proportionately the domestic price level. The more rapid transmission of exchange rate changes into the domestic price level in a small country also helps to demonstrate the effectiveness of and helps to build support over time for an anti-inflationary policy that is built around a flexible exchange rate.

A different set of policies are required to maintain steady levels of or steady growth in total expenditure and domestic economic activity in the face of fluctuations in the terms of trade or in investment and production in the export industries. Large fluctuations in the level of activity lead to the disappointment of the expectations of rural migrants, urban workers and investors, with associated social welfare costs and waste of capital, as discussed earlier in the paper. Instability in cash crop incomes of villagers may be a source of unhappiness in itself and contributes to fluctuations in overall economic activity. Stability and especially predictability in public expenditure facilitate the planning and efficient implementation of development programs. Let us say that stability is thought to be desirable in relation to the rate of growth of government expenditure, village income and total economic activity.

Figure 1 describes a situation in which the level of real spending power, that is the level of real expenditure that is consistent with balance in external payments, varies cyclically around a steady upward tendency. We define balance in external payments as a situation in which the net overseas indebtedness of the government and monetary authorities is increasing or decreasing at some specified rate. It might, for example, be defined as zero change in the overseas indebtedness of the authorities in the country under consideration over specified periods. Figure 1 also identifies the levels of net accumulation of reserves or net borrowing that must be undertaken in various shorter periods to maintain real expenditure on a steady trend.

Figure 2 describes a situation in which the level of real expenditure that is consistent with balance in external payments is subject to large once-for-all increases and decreases.

How can a small country effect the large net changes in reserves required to maintain stable growth under the conditions described in figs. 1 and 2?

The first requirement is foresight.

For many primary commodities, very large price fluctuations on world markets occur around a general tendency for average prices in real terms to be more stable over long periods. For some commodities, estimates of future prices by various international agencies provide a reasonable

indication of the behaviour of average price in real terms over the medium and long term, although not to prices at any particular time. It is, of course, the average of future prices in real terms that determines the sustainable rate of growth in real expenditure. So long as reasonable estimates of this average are available, domestic expenditure can be maintained on a more or less steady path even though there is great uncertainty about prices over short periods.

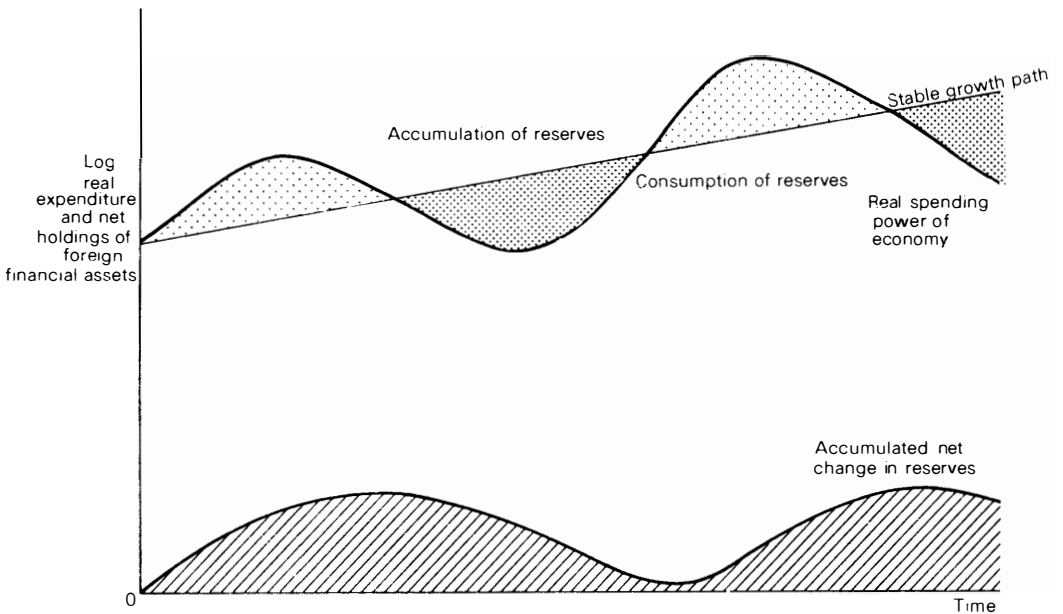


Fig. 1 Changes in reserves under countercyclical stabilization policy.

It sometimes happens that a country is subjected to large and permanent changes in its terms of trade that bear no relationship to historical experience and which are not foreseen in the usual estimates of average commodity prices. In these circumstances, the small country may have no alternative but to adjust its expectations about growth,

and perhaps accept considerable instability in levels of economic activity in the transition from one growth path to another.

The discovery of a major natural resource may change expectations about the rate of growth in real expenditure that can be sustained simultaneously with balance in external payments. But after the discovery, it takes many years for the resource to be evaluated and the feasibility of economic exploitation to be established. These long lead times allow problems resulting from fluctuations in the economy's real spending power through the construction of a mine and the depletion of a mineral deposit to be assessed some time in advance of their occurrence.

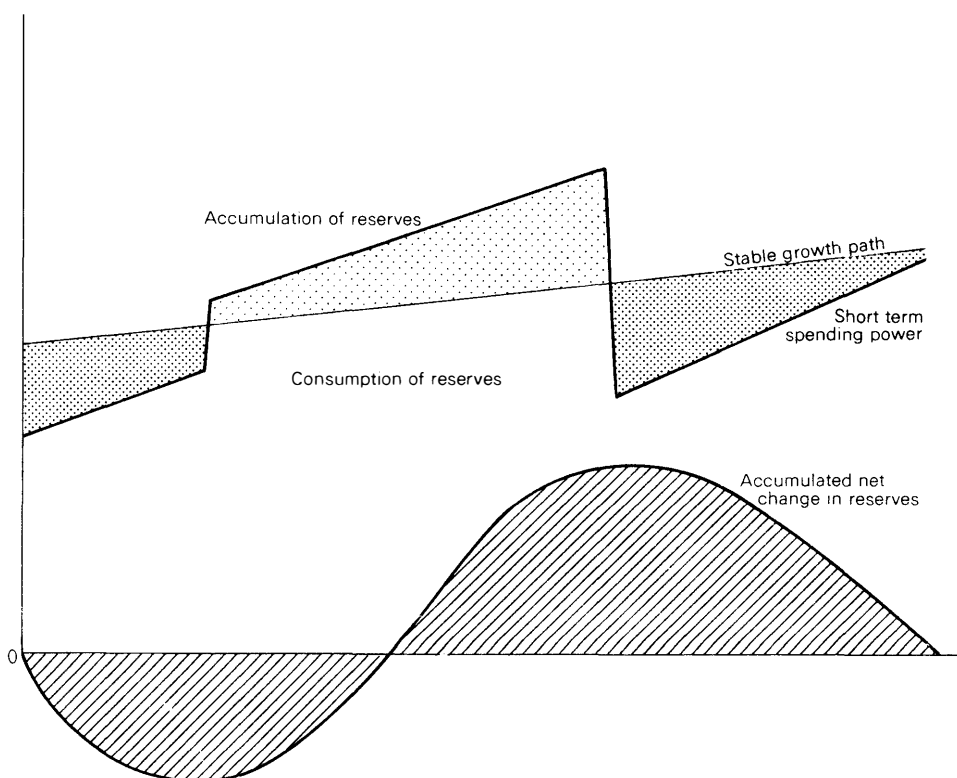


Fig. 2 Changes in reserves under policies to offset large variations in rates of growth over longer periods.

Early predictions about the rate of steady growth in real expenditure that can be sustained over long periods are improved as more information becomes available on the behaviour of commodity prices, investment and production, and this may require the modification from time to time of the steady rate of growth that is judged to be consistent with balance in external payments.

Once the desired steady rate of growth has been calculated, the stabilization policy problem becomes how to maintain expenditure on this path over time in the face of the fluctuations in the economy's spending power. There are a number of 'natural stabilizers' operating in a small open economy which moderate fluctuations in domestic expenditure in the face of large increases in capital inflow or export income, and some of these also assist in accumulating foreign financial assets (reserves) in times of exceptional prosperity. A large proportion of abnormally high profits earned by foreign corporations when export prices are high tend to be remitted overseas, and so do not increase expenditure in the local economy. Domestic firms and households, including village households, have some awareness of the cyclical nature of their incomes, and tend to save a higher proportion of those incomes in buoyant times, thus moderating the boom in domestic expenditure when export prices are high, and allowing some accumulation of reserves. Similarly, the banks tend to allow the ratio of lending to deposits to fall in buoyant times, lest they be embarrassed later when deposits are withdrawn. During a cyclical downswing, these factors operate in reverse: there is a decline in remittances by foreign corporations; domestic firms and households reduce savings; and banks' liquidity ratios decline.

Government taxation receipts in a small economy are sensitive to external economic conditions, rising in buoyant times and falling with recession. If the government resolves to maintain its expenditure on a steady course, as an alternative to raising expenditure when taxation receipts are high and being forced to make large cuts when receipts are low, countercyclical variations in the budget surplus have an important stabilizing effect. A government that does no more than maintain its own expenditure on a steady trend makes an important contribution to stability in the economy at large.

Fluctuating mineral incomes accrue almost exclusively to foreign corporations and to the government in most small

economies, so that the 'automatic' and 'government expenditure' stabilizers discussed above are effective in an economy in which fluctuations in minerals income are the main source of domestic instability. The 'automatic' and 'government expenditure' stabilizers are less effective in maintaining stability in the economy as a whole when instability derives mainly from fluctuations in village incomes and in private investment.

Although the prescriptions for maintaining stability in economic activity are easy enough to define, it is seldom a simple matter for a government to maintain expenditure on a steady growth path when there are large fluctuations in its revenues. Even when it has a clear view of the rate of growth of real expenditure that is sustainable over time, there are strong pressures to raise growth in expenditure above this level when surplus cash appears to be available. The challenge is to build political consensus about the need to stabilize expenditure and about sustainable levels of expenditure. In managing the politics of stabilization policy, Papua New Guinea has found it useful to receive taxation revenue from the minerals industry into a statutory fund, the Mineral Resources Stabilization Fund, and to transfer it into consolidated revenue only at a rate that is judged to be sustainable over the medium term. To assist in building consensus on the sustainable level of expenditure, the managers of the Fund report annually to the Parliament on expectations about mineral prices and incomes. The Mineral Resources Stabilization Fund institutionalizes the counter-cyclical variation in budget surpluses that is required alongside the steady growth in public expenditure.

The 'automatic' and 'government expenditure' stabilizers alone cannot remove instability from a small economy that is heavily reliant on village cash crop exports. The reduction in village incomes is associated with some reduction in expenditure on domestically produced goods and services. This is exacerbated if the contraction in the monetary base of the economy and in particular in bank deposits that is associated with the decline in export income leads to a reduction in bank lending and so to reductions in private investment even further below the low levels that would otherwise have obtained through a period of recession. Bank finance is likely to be a more important constraint on investment in times of recession for domestic firms, since foreign corporations are likely to have access to international capital markets.

Some of these adverse effects of fluctuations in bank lending can be reduced by sensible monetary policy. Small economies are bound to maintain real interest rates on average over time close to real interest rates on international markets, because such a high proportion of their financial transactions are conducted internationally. (Of course, nominal interest rates can remain below international levels if the local currency is appreciating against foreign currencies.) However, there are advantages in the local monetary authorities allowing real rates to rise above international levels at times when export income is low. The higher domestic interest rates encourage residents to hold funds within the country rather than offshore and cause foreign firms to borrow offshore, thus increasing the funds available from the banking system for domestic firms.

More generally, it is possible to reduce the fluctuations in villagers' incomes and in expenditure and activity in the economy as a whole through the use of levies and bounties on proceeds from cash crop exports. Prices of the main tropical tree crops reveal wide cyclical fluctuations, as well as changes in average prices over longer periods. The effects of the cyclical movements on incomes and domestic expenditure can be reduced by applying levies on the proceeds of cash crop prices when prices are above trend levels, and paying bounties when prices are below trend levels — with the 'trend' being taken as the historical average prices in real terms when more reliable projections are not available. The proceeds from export sales can be held in relatively safe international investments at interest rates which more or less compensate for the loss of purchasing power due to inflation. The main difficulties in the implementation of these arrangements are political, just as they are for attempts to maintain steady growth in public expenditure. Villagers will be rightly suspicious of the levies unless it is very clear that they will indeed be balanced by bounties in leaner times, which means that villagers must have confidence in the capacity of the government to resist the temptation to use the proceeds of the levies for general purposes. Not all governments which have introduced cash crop price or income stabilization arrangements along these lines have been able to exercise restraint in this regard — notably the Ghanaian government with respect to the assets of the Cocoa Marketing Boards in the 1950s. But there are counter-examples: in the southwest Pacific region there is Papua New Guinea's experience with copra, cocoa and coffee.

Summary of policy suggestions

Anti-inflationary policy in a small economy must be built on a combination of a strong exchange rate and restraint in nominal incomes and expenditure. Exchange rate adjustments can insulate the domestic economy from external inflation; and balance of foreign payments at the strong exchange rate is secured by holding real domestic expenditure within the limits suggested by the forward projections of the economy's spending power. The first requirement of an overall strategy to stabilize domestic economic activity in a small economy subject to external instability is an estimate of the average level of real domestic expenditure that can be sustained in future years without problems in external payments. The most important single element in the stabilization program is the maintenance of public expenditure on a path of steady growth, consistent with the average sustainable level of total domestic expenditure, in the face of wide fluctuations in taxation revenue. Further reductions in instability are achieved if fluctuations in cash crop incomes can be reduced by the use of countercyclical levies and bounties on exports. Intelligent monetary policy can reduce cyclical fluctuations in private investment activity. Together with the maintenance of steady growth in public expenditure, these measures can secure much more stable growth in the economy as a whole than would otherwise be present. Each element in the stabilization program helps to strengthen the program as a whole, since greater stability in the total economy reduces fluctuations in taxation revenue and facilitates the maintenance of steady growth in public expenditure.

The main difficulties in the implementation of the program are political. The political problems can be managed only if there is widespread understanding of and confidence in the main mechanisms of stabilization policy. This understanding and confidence is developed more easily within a small economy, where causes and effects of policy changes are clearer and where communications between politically significant groups are relatively easy. It is mainly for these reasons that small economies in practice are sometimes less unstable than large economies, despite their being subject to more powerful destabilizing influences.

**Section VI
Health and
Education**

Chapter 15

Designing appropriate health delivery systems for the islands of the Pacific and Indian Oceans

J.H. Hirshman

Countries with populations ranging from a few thousand up to a million or so face similar problems of small resources, limited health manpower and problems of access to health care facilities by the population. This is indeed the case in the small island states of the Pacific and Indian Oceans.

The biggest causes of illness and death in the islands and in most developing countries, large and small, are respiratory and diarrhoeal diseases. These are the two main killers, particularly in childhood. Other communicable diseases follow in importance. Malaria where it occurs is also of great significance; it aggravates the health situation profoundly and causes major economic problems. Malaria in the South Pacific is confined to Papua New Guinea, the Solomon Islands and the New Hebrides; it does extend into the Indian Ocean.

Significant bacterial diseases are tuberculosis, leprosy, the main venereal diseases, meningitis, leptospirosis, tetanus, other clostridial infections and whooping cough. The pneumonias and bronchopneumonias are included under respiratory diseases which are usually the leading causes of mortality and morbidity. Gastro-enteritis, typhoid, and the diarrhoeal diseases as a whole are the second largest cause of mortality and morbidity. Cholera has reached the South Pacific in Nauru and the Gilbert Islands (Kiribati).

Of the viral diseases, hepatitis, dengue, influenza and the viral components of diarrhoeal and respiratory infections are all problems. Poliomyelitis is no longer common. Rabies is not endemic in the Pacific.

necessary, no matter how efficient preventive services are, but money spent on the costlier forms of curative services must be carefully gauged.

Unfortunately, the colonial heritage has emphasized the monumental hospital, beloved also by politicians because a plaque can be affixed. It is a visible symbol of 'health' — or rather ill-health.

Hospitals will always be needed. It is only the type of hospital and the level of facilities that need to be kept in tune with resources and needs. Too many small countries spend as much as 70 per cent of their health budget on curative facilities and medicaments, particularly on hospitals built in an expensive fashion using well-meaning bilateral aid. The countries are then saddled with large running and maintenance costs for inappropriate hospital facilities and the health budget has little left for other purposes.

A primary health care approach, with community involvement, is suggested and this will be discussed later on in this paper. Traditional medicine, often deeply rooted in the culture, should not be destroyed but utilized whenever feasible, discarding the harmful, developing the good, and retraining and using traditional health workers.

Nature of preventive emphasis

Small states should concentrate on proven preventive measures; the following areas are suggested as priorities:

1. Environmental sanitation. Safe water supply, safe excreta disposal, food control and hygiene, reasonable housing standards, sanitary garbage disposal, disease vector control, pollution control where applicable.
2. Maternal and child health preventive measures: (a) The fullest possible immunization coverage for diphtheria, tetanus, whooping cough (D.P.T. vaccine), poliomyelitis (oral vaccine) and tuberculosis (B.C.G. vaccination). This involves the availability of vaccines of proven effectiveness, managerial capacity in scheduling coverage and follow up and a cold chain to keep the vaccine potent till administered. (b) Nutritional guidance and improvements; health education. (c) Family planning, child spacing, prenatal services, prevention of obstetric complications. Anaemia and parasite control.

3. Communicable disease control measures and campaigns (malaria, filariasis, tuberculosis etc.). Practical measures to minimize disease introduction, i.e. 'quarantine' services, and some epidemiological competence.
4. Accident and traffic accident prevention to the extent practicable.
5. A degree of effort in occupational health, as appropriate to country conditions. This extends to agricultural workers and is not confined to industry. Pesticide and other toxic substance control is included.

Health structure

Let us agree that health is too important to be left to the health professionals alone. There has to be inter-sectoral collaboration and support, with a total government and community involvement in health policy. Without being over-elaborate for small countries, co-ordination for health is needed from public works, education, agriculture, community development, labour and other related sectors. Whatever economic planning board or finance ministry exists should be involved and should be aware of social needs, not only economic needs. For many health problems, for example in mental ill-health, in malnutrition and in problems arising from high fertility, the possible solutions are largely outside the strict health services and social, cultural and political efforts are needed to supplement what health services can do.

A modest national health advisory council is suggested for small countries, to advise the Minister for Health, and, through him, Cabinet. Such a council should have reasonably broad government and community (consumer) representation.

Let us also agree that the technical skill and knowledge of health workers must be augmented by an adequate managerial, administrative and logistic capacity of the staff and of the health service as a whole.

The structure should be capable of responding best to peripheral, rural demands. It should not be overweighted centrally. A Minister of Health should be the political and the administrative head. He need not be medically qualified. There would be a technical head under the Minister, preferably medically qualified and with public health orientation

and training. The subsequent structure depends on the size and other circumstances of the small countries and this need not be described in detail. There need not be a strict division into curative and preventive services and in small countries health administrators should be as multivalent as possible and not over-specialized. There should be a strong environmental health section, closely co-ordinated with Public Works, clearly defined responsibility for maternal and child health including family planning, communicable diseases, community nursing and for the education and training of health staff. There has to be adequate decentralization to divisions and/or districts. Every effort should be made to balance the usual trend of good access to health care in urban areas and poor access on the periphery in rural sectors.

Primary health care, as interpreted and adapted to each country's needs, provides this approach. It is no panacea, and really it is only a slogan for an approach, but in essence it means the provision of health care of an adequate type through primary health workers who have to be appropriately trained but whose training need not be of long duration. There must be support for and supervision of such primary health workers and there must be referral possibilities. There also should be community involvement with the community having a hand in the choice of the primary health care workers and ideally sharing the support for them in collaboration with the government. This could apply to their housing, part of their salary and also to the labour component of building health centres, water supplies, etc. I do not believe that it is practical to ask communities to shoulder all the burden of finance needed for primary health care but a reasonable share is salutary.

The primary health care worker needs some means of transport: a horse, a bicycle, motor cycle, car or boat, whatever makes sense in the circumstances. He or she needs a supply of well chosen essential drugs and equipment. He or she needs adequate housing, a simple but clean health centre or subcentre that can also serve as a health education and demonstration facility, and clear instructions. A manual for primary health care workers should be developed and this must be augmented by regular supervision and re-training. He or she needs to know when to call for help and where to call. Means of communication are needed. He or she should get out into the community and should not sit in a health centre waiting for patients.

No small country, or *any* country for that matter, can rely predominantly on doctors for health care delivery. Leadership can be given by *appropriately* trained doctors with a broad outlook but doctors will always be expensive to train and maintain and will tend to avoid the periphery.

The peripheral staffing basis should be village health workers or urban primary health care workers with training of six months to a year. A degree of literacy is required. Retrained traditional health workers may be suitable. Support and supervision will come from more highly trained nurses and midwives and from medical assistants. Sanitation workers, particularly sanitarians/health inspectors, are needed to support the environmental sanitation efforts of primary health care staff.

In most cultures, women's committees concerned with health and social progress can exert a powerful influence. They can achieve more than the health professions by themselves, particularly in child health and family planning.

Drugs and medicaments

Doctors prefer a wide choice of drugs and like to prescribe widely — though not always wisely. Small countries cannot afford large drug bills and large drug inventories.

The World Health Organization has developed lists of essential drugs, with flexibility for country circumstances. These drugs should be bought by generic name if possible (i.e. by chemical substance rather than by proprietary name); they should be bought in bulk as advantageously as possible by small countries banding together in purchasing schemes to obtain better prices from reputable manufacturers. Traditional drugs and herbal medicines which are beneficial or at least harmless can be used. The local cultivation of useful medicinal plants and their processing should be encouraged.

Health centres, equipment and transport

These should all be as appropriate and simple as practicable and there must be provision for maintenance. Equipment should be standardized and well-meaning donations of all kinds of different equipment discouraged. It is realized that it is not always easy to look the gift horse in the mouth.

Shipping is important for states with scattered island populations, particularly for those with limited or non-existent air services. Whether there should be a medical ship is a question that can only be answered by weighing all factors pertinent to each country. It is expensive but for some larger island groups it may be necessary.

In general, the most practical, uncomplicated levels of buildings, transport and equipment that will do the job should be looked for, always with maintenance and cost effectiveness in mind. There need to be some adequately trained technicians who can check and maintain electro-medical and laboratory equipment including x-rays. They will not be able to do everything, but they can do preventive maintenance, minor repairs and at times even major repairs.

Health budget

While this must vary with the size of the countries and other circumstances, such as the policy towards fees for medical services and the country's transport and communication facilities, it is felt that 10 per cent of the total government budget for health would be a reasonable approximate yardstick.

Staff and training

Doctors with training appropriate to the country's circumstances and a public health orientation are needed for public health leadership and for clinical/curative tasks.

There is no need whatever to aim for the doctor/population ratios of the so-called developed countries. While some small Pacific states have achieved ratios of one doctor to approximately 2000 people, one doctor for 4000-5000 people can be quite sufficient if other categories exist to take up some of the tasks. Much will depend on the accessibility of the population. Scattered smaller islands with small populations compound the problem. Medical assistants are important in my view and this does not just apply to small island countries. These can be trained from scratch in a 2-3 year course or nurses can be given additional training. Medical assistants can have public health, clinical diagnostic and health promotional (health education) roles. They are a supervisory echelon for village health workers.

One medical assistant for about 1500 to 2000 of the population, depending on circumstances, could be aimed for.

Nurses and midwives are familiar categories of great importance and impact. They are usually the real 'work horses' of the service and are not often given sufficient credit and adequate conditions. They should have a community orientation, not only bedside skills, and should be trained locally, and not only in a hospital setting. Nursing aides or similar auxiliary categories with shorter training can be very useful.

The peripheral workers — village health workers or urban health workers — are perhaps the most important if adequately selected, trained and motivated and if they have community support. Training of six months to one year, carried out locally, with good supervision, support and retraining is proposed. The 'aid post orderly' in Papua New Guinea is a good example. Educational standards need not be high but a degree of literacy is most useful as is some basic idea of a scientific approach to health.

Well trained and practical sanitarians/health inspectors who are willing to get their hands dirty are worth their weight in gold. One to three years training is required depending on the standard sought. They should be supported by basic environmental workers with little formal training who can help them at village level even on a part-time basis. Specialized sanitary engineers are most important people but their full-time employment is usually not feasible in the small island states. A pharmacist and pharmacist assistants are needed. Assistant pharmacist training can be carried out in some of the smaller countries but the training of fully qualified pharmacists usually requires developed country facilities.

Dental services can be given by a very small cadre of qualified dentists supported by dental assistants, dental hygienists and, as required, dental technicians, but they must be prepared to be mobile most of the year in scattered island settings.

Radiographers, laboratory technicians, physiotherapists and nutritionists may all be needed but for very small states flexible multivalent workers can carry out some of these functions adequately. For example, nurses or nursing assistants can carry out some laboratory examinations, some x-ray

technical work and even some physiotherapy. Medical assistants and nurses can help with nutrition education.

All health workers can and should be health educators but one or two health professionals should have special training in health education techniques so they can pass these on to their colleagues. As for the clinical areas, most countries, unless very small, will need some 'specialists'; and some of their doctors at least should be trained in priority areas even if they cannot be termed 'qualified specialists'. These priority areas are internal medicine including cardiology and chest diseases, general surgery and orthopaedics, paediatrics, obstetrics and gynaecology and anaesthesiology. The second priority perhaps are ophthalmology, skin diseases, ear nose and throat, psychiatry and pathology. More 'rarefied' specialities like neurology, neuro-surgery, gastro-enterology, urology, endocrinology can usually only be covered by visiting specialists through collaboration with other countries. Even the second priorities and some of the first cannot always be met from indigenous resources but there could be a pool of specialist resources common to two or three states in collaboration. There will always be cases where the transfer of patients to countries with greater facilities will have to be considered. This is an expensive but at times unavoidable exercise. As stated before, the public health administrator/medical officer needs a public health qualification with a reasonable grounding in epidemiology and communicable disease control. He should also have sufficient management skills to help his staff. Very importantly for health services there have to be people with managerial and administrative skills such as hospital administrators, supply officers etc.

Health information and statistics are needed for feedback and for evaluation and planning efforts. There should be country health programming, even for small states, and some health planning skill available within the health administration. A qualified health statistician may be a luxury and is rarely found in the island states but a person with a good head for figures and a well-organized clerical mind will do nicely and can lead the needed health statistics section.

It is clearly uneconomical and virtually impossible for small states to train all their health workers within their boundaries. The only practical solution is for one of the larger developing countries in the area to provide

facilities for basic and some post-basic training, with support from the other countries in a Technical Co-operation among Developing Countries (TCDC) approach.

Fiji is a good example in the South Pacific where the Fiji School of Medicine trains doctors, dentists, laboratory technicians, health inspectors, radiographers and others for most of the area. Fiji can also provide some post-basic training. Peripheral health workers, nurses, midwives and possibly medical assistants should have their basic training locally whenever feasible. Facilities for specialized training in developed countries will have to be used provided these are appropriate and flexible.

Whether the training of doctors and dentists is at university level or at diploma level is to me immaterial but the prestige aspects are recognized and the pressures are for degrees and their recognition 'internationally'. The brain drain away from small states is unfortunately real and serious but there are no ready answers that fully respect human rights.

The aim should be to practise scientific medicine without frills and over-elaboration. This will require a level of diagnostic and laboratory services that is reasonable but not over-sophisticated. Self-reliance should be the aim as far as possible. 'Scientific medicine', however, does not exclude the helpful contribution traditional medicine can make.

Conclusion

Hard as it may seem, small states must cut their cloth according to their resources. This is not always a health disadvantage for, 'over doctoring' and 'over medication', so commonly found in the developed world, can be damaging and counterproductive.

The proposals I have outlined above are not intended as a rigid program. I believe the outline to be workable and much of it exists now or is being developed. It fits in with the guiding principle, namely access to appropriate, hopefully effective health care for all, health care without frills and prohibitive cost. There will never be 'health for all' and slogans that imply this should not be misunderstood. There can, however, be access for all to appropriate health care and help and dignity in pregnancy, childbirth, illness and in the inevitable terminal phase of life.

There can and must also be a great reduction in *preventable* illness and death. The technology for this exists and it can be made applicable to available resources.

Of course, appropriate health technology as is available today should be applied and accessible. Countries, however, can find the way that suits them best in health service design within the above technical considerations and their own constraints. Some, with already considerable health personnel resources and no great geographical problems, may not opt for village health workers of short duration training. Others may not agree, for various reasons, including professional conservatism, to a medical assistant category. Alternatives can be found. But let us not just carry on inappropriate transfers of health care patterns that do not work well, are increasingly expensive and which deny social equity and health access to those who need it most.

Chapter 16

Are there regional answers to the education problems of small island states?

Tom Kennedy

In considering education it might seem worthwhile to look at a model 'small state' and then apply a problem solving technique. But if we look at those in the Pacific Ocean we cannot really find a model that fits. All of the island states have considerable physical, ethnic, linguistic, cultural, economic and political diversity. They have different goals and aspirations and different views about the means of attaining these. When it comes to the education system there is, at first sight, a rather frightening similarity in the appearance of school buildings and even in what goes on inside them. But on looking more closely there are differences which are increasingly being planned to fit the kind of education the countries see as being suitable for their communities.

What kind of education?

Each country has looked at this carefully and the last few years have seen various reports and development plans. All of these differ but tend to emphasize a need to get back to more culturally and rurally based education and for community participation and awareness. While all countries stress that education should be relevant to the 'Pacific Way' of life there is recognition that there are differences and no master plan applies.

It is obvious that what suits Fiji, with its agricultural, manufacturing and tourist potential may not be appropriate for Tokelau. In the latter with its three small atolls, apart from fishing resources within the 200 mile zone, there is apparently little economic potential. A further consideration is the possibility that Tokelauans may want to fit into New Zealand society or they may decide to develop

tourism in a big way or grow pearl shell or become a tax haven or a ship registry location.

To take an example where there is known to be a choice: the Solomon Islands has had little in the way of secondary education; one government school and several small mission schools, with perhaps 8 per cent of the population going to school above Form 2. The policy based on the 'White Paper' of 1974 was to develop rural based schools with a curriculum designed to orient towards village agricultural life. But the government is considering allowing development of bauxite reserves and of other industries which within a very few years could change the life styles of most Solomon Islanders. To prepare for this a rural based education is not appropriate.

Niue and the Cook Islands have a special problem which has bedevilled education policy for years. As New Zealand citizens with free access to New Zealand, what kind of education prepares pupils on the one hand for life in these islands with limited vocational opportunity and on the other for life in New Zealand if this is what is chosen? There seems little point in saying to parents and pupils: 'The Cook Islands (or Niue) is going to develop in many ways over the next 10 or 20 years and training which will fit you for staying and enjoying the good life on the outer islands here is what you should do'. Rather one should start from the premise that, given the preferences of rural youth, the 'terms of trade' are weighted in favour of urban Rarotonga and Auckland. An attempt to deal with this problem must begin with efforts to shift these 'terms of trade' in favour of the rural areas and not with attempts to provide a rural curriculum. While education for rural development is concerned with many wider studies than agricultural education *per se* it has many pitfalls. Young people are leaving the rural areas, not because they do not know enough about farming and rural life but because they know too much about it, and they do not like what they see: hard work, low and fluctuating returns, inequitable profit sharing, land tenure difficulties, boredom. Education is up against a Titan in attempting to reverse a trend which has been an accelerating feature of the free world for decades.

We must remember that there are many forces besides inappropriate formal education which are operating against retention of rural youth. These, in fact, are other instruments of development — the media, particularly radio with

the wash-in of pop music, films, advertising and the lure to exciting places; better transport systems and the presence of tourists with the kind of life style they mirror. In the Eastern Pacific there are particularly strong links with families and friends in New Zealand and the desire to see what lies over 'the long sea'. A further trend is that of a weakening of traditional authoritarianism and a contingent lessening of moral obligations. Not so long ago students voiced an obligation to use their education for national benefit - this is now less apparent.

Often the master plan for development education becomes a victim of development itself. The decision several years ago to provide rurally based non-academic forms 1-4 schools in remoter areas in Fiji was welcomed by communities which had no secondary school. Not long after establishment those same communities pressed for extension to fifth forms and School Certificate classes to give their children equal opportunity with those in the more urban schools, that is equal opportunity to compete for scarce occupations. Rural schools share a difficulty common to most countries. For a variety of reasons they are unattractive to teachers and the better ones tend to move to urban schools. As a result the selective examination systems examine teachers rather than student potential and the rural children fall further behind in the academic race. This urban lure affects not only the so-called academic subjects (though it is not the subjects but the subject matter that is academic), but also the success of moves to develop rural based schools, and community schools. The very kinds of studies planned, environmental relationships, crop and animal improvement, industrial and domestic arts, health and community development require better trained, more aware and innovative teachers than do many narrow academic studies.

Historical background

It might be useful to look briefly at the development of education in the Pacific islands up until recently as a background to the present situation.

Early formal education by missionaries was designed to create literacy and this policy continued as colonial administrations developed public education. A few secondary schools were set up mainly to provide education to fit a small élite group of people who could serve the church and government in clerical, teaching and administrative positions

(e.g. in Tonga, Tupou College was established in 1866 and Tonga College in 1882). The type of education was formal in the sense that English, arithmetic, divinity and history were taught. The schools were for boarders and boys worked on the school farm to produce food. Later a few similar schools with more of an agricultural bias were set up. Ratu Kadavu-levu School in Fiji was an example.

Since World War II there has been a steady growth in education provided by both missions and the government administrations. This has been associated with improving health facilities and high population growth rates.

In the immediate pre-war years and again for some years afterwards, secondary education for selected students was thought to be more economic and of better quality if carried out in metropolitan countries. It could also prepare students better for tertiary study of various kinds which would train them for particular jobs in their islands. Because of small populations and limited numbers of key jobs, planners had the notion of training one man for one job. But training took several years, the student might discover other fields he was unaware of or might drop out or be promoted immediately on return. So the process of localization was very slow.

Both primary and secondary education tended to be formally academic (based on existing overseas texts) as there were few people and little finance to produce appropriate texts and teaching materials. New teachers from overseas developed what they were used to. Allied to this was the idea of a need to retain links with the land, so school gardens and farms were tended concurrently. There were school competitions for the best gardens. But with a few exceptions there was little development. The garden work was seldom related to other aspects of school work, such as science, and often was just hard work, which made children tired for their class work. They learned no more than they did when working in the family village gardens at the end of their father's cane knife, and it certainly gave them no more desire to look to gardening as a way of life. Partly on account of this, other forms of employment called. These were chiefly in government offices and in shops, and the kind of education which got you there was not found in school agriculture. At the same time parents began to regard education as having status and demanded more secondary schools for their children.

Apart from Niue, Tokelau and the Cook Islands where populations were small and the setting up of schools more controlled, this demand led to a considerable growth of secondary schools in the fifties and sixties. Most of these schools were started by the missions, not related to total government planning, and over which governments had little control in terms of curriculum but did not oppose because the schools were relieving the financial load. In the case of Fiji the Indian communities set up many independent schools, most of which are now grant aided. Each country had its own leaving certificate at Form 2 and Form 4 based on internally prepared syllabuses.

In order to improve standards further, to provide people for positions in government, in teaching and in the private sector, administrations sought to have pupils examined at Form 5 level by recognized overseas boards such as those of Cambridge School Certificate and New Zealand School Certificate. At first, in 1950, this was restricted to a few élite schools, the Boys and Girls Grammar Schools in Suva, Samoa College and Tonga High School. As well as a need for more qualified school leavers, the development of strong competition between schools as well as community pressure led to mission and other government schools striving to present candidates for School Certificate.

In spite of attempts by administrations to develop other forms of education the parents and pupils wanted to aim at School Certificate — that was the passport to scarce employment opportunity. Technical education languished. The Trades Training Institute started in Samoa was not popular, there were few openings and as in other countries no apprentice system. Derrick Technical Institute (Fiji Institute of Technology) in Fiji has only flourished in the last ten years (in an economy with a reasonably good industrial sector). Technical courses in secondary schools held no great appeal — students felt they were using valuable time they could devote to other studies — and led to no openings, or ones which were poorly paid and lacked status. Few secondary schools offered agriculture, and in tertiary institutions such as the Fiji College of Agriculture and Alafua (USP) in Samoa a basic education in sciences was considered a more appropriate entry qualification. Some dedicated institutions like Navuso College in Fiji and Hango in Tonga have run successful practical courses in agriculture. Avele College in Samoa has had a varied history owing to control being exercised by the Department of Agriculture and

then by Education. Its emphasis has swung to more general education. Apart from the social and economic unpopularity of agriculture courses the greatest problem has been a lack of suitably trained teachers with a knowledgeable and interesting approach. A significant advance was made with the Forms 1-4 science curriculum developed by the UNDP Secondary Curriculum unit which was in Suva from 1970 to 1975. This examines science principles in relation to the local scene which includes local plants, animals and practices. The interest and understanding are there, the drudgery has gone. But suitable teachers are in short supply.

Present problems

This brings us to the present situation. We should perhaps ask whether, in fact, small developing states do have special problems in education or whether they are not just the same problems of large developing countries but 'writ small'. The basic problems seem the same:

- (1) the provision of enough education;
- (2) the achievement of quality in that education;
- (3) the kind of education to fit the needs of the country;
- (4) the resources to cater for 1-3.

These resources include finance, school buildings, equipment, books and so on, people (teachers, advisers, inspectors, administrators), the curriculum and its evaluation, language policy implementation, research, and special forms of education including that of out of school youth.

Let us look at some of these only. Most have been discussed and documented in a wide range of general literature on development education.

Finance

We can dispose of finance fairly quickly. It is a key problem and gets the blame for all educational inadequacies whether or not they are due to that. We should remember that many very fine learning experiences can take place in a limited material environment. There is, for example, a beautiful 'free' biology laboratory right outside the classroom window. But finance does have a key role not only because it facilitates the organizational aspects of

education but because it provides the 'people' in education. Most small countries spend 80-90 per cent of their education budget on teachers' salaries alone and because there is a far higher proportion of teachers in the population than of any other category of skilled workers - especially where half the population is of school age - this represents a large slice of public expenditure. Pacific states spend up to a quarter (e.g. Fiji 25.03 per cent) of their operating budget on education whereas in New Zealand the percentage is at present about 16 per cent, with some 46 per cent of that on teachers' salaries.

In the small states many educational services cost comparatively more than in larger countries. A science curriculum officer is say the Cook Islands (population under 20,000) is thirty times more expensive than one in Fiji (600,000) in relation to the population served. The principal and specialist staff of a teachers' college or a technical institute in a small country is similarly more expensive than in a larger one. The same applies to specialist equipment. The duplication of secondary schools in scattered states, to serve small island communities, is very uneconomic both in terms of costs and in the use of teacher skills. This, specially when there is duplication of science equipment, industrial arts programs, and libraries.

None of the small states we are considering, with the exception of Nauru, is able to finance its education system in line with its development concepts. They are dependent on outside assistance to achieve their goals. While most donor countries respect the rights for self-determination of development patterns they are concerned that the alleviation of inequality and the creation of better conditions of life will eventually be achieved. Because economic development underlies these better conditions, more donor assistance goes to that rather than to education. This in principle makes sense but people find the emphasis hard to accept. A Pacific friend of mine, who carried out for his government a survey of the ideas of rural people on development, told me that while they understood the need for economic production to finance social services they wanted more schools and better medical services now.

Educational goals are not always viewed in the same way by all sectors of the community. For example surveys have shown that many teachers, students and parents regard the purpose of education as ensuring a good job and conferring

prestige – an individual rather than a national goal. However, for policy-makers the objectives are likely to be building a national identity, speeding economic development and promoting cultural and social advancement. But the policy-makers are frustrated by the very large financial requirements needed to develop and maintain the wide spectrum of educational improvement. One of the serious problems governments face is that while there are fairly readily available outside resources to establish and equip educational facilities, they are unable to provide for the *re-current costs* of adequately running the institutions. And so they are faced with priority choices for allocation of scarce resources. And whatever choice they make will be unpopular in some quarters. The chicken and egg dilemma faces education and economic development. They are interdependent yet the quantity and quality of the first depends on the strength of the second.

Quality

Let us look now at the achievement of quality in education. This is inevitably associated with teachers and the curriculum. I can do no better than refer readers to C.E. Beeby's¹ writings on this in connection with developing countries generally. He points out that teacher quality depends on the entry qualifications of students to teachers' college, on the length and nature of the training and on subsequent in-service advice and inspection.

In most of the Pacific countries the quality of teacher intake is governed by the popularity of the profession, and this is a mirror of status and salary, neither of which is high relative to other professions, administrative positions or the private sector. In the very small states there is a further factor, that of negative selection. The numbers of school students attaining School Certificate or University Entrance (with the exception now of Fiji – 900 UE passes in 1978) is so small that, when training awards for the more popular occupations have been taken up, there are few well qualified students available for teachers' college. We then come to the second problem. To upgrade personal academic standards and to provide pedagogical training takes much longer than the courses offering allow.

¹C.E. Beeby, *The Quality of Education in Developing Countries*, Harvard University Press, 1966.

Teacher training and retraining need priority attention. However, improvement of teacher quality is a long-term process, full of frustrations for bright young teachers who find their ideas and techniques stultified by conservatism. It is further complicated in small less developed countries by the fact that the most able teachers are constantly being siphoned off to fill posts in government administration or in commerce. Governments, however, must see this in relation to priorities of overall development.

What is perhaps not given due importance is the role of advisers and inspectors in influencing teacher improvement. For the existing teacher force and for young teachers coming in, constant and regular advice and support is necessary. While such services vary from country to country one can only marvel at teacher responsibility in some cases.

The small states find difficulty in providing a range of administrative and professional back-up in their Departments of Education. Often schools are visited rarely, in-service courses are few and school servicing inadequate. In those countries with scattered islands this is an almost insurmountable problem. A good example of an attempt to overcome this is in the Solomon Islands where over the last four years New Zealand has helped establish regional teachers' centres.

At the same time 'smallness' can be an advantage in non-scattered states. Where there is only one island such as Nauru or Niue quite close control can be maintained, schools can easily be visited, and in-service teacher's days can be regular.

The very small states have also the problem of planning numbers for teacher training. In Niue, for example, where the total teacher force is about one hundred or in Tokelau where it is about forty, there is little flexibility in planning and it is very easy to over- or underestimate the numbers required for training each year. The numbers are anyway so small that teachers' college staffing becomes expensive and, through lack of enough staff for specializing, the level of training suffers. At the secondary teacher level the problem is even more acute.

There can be some regional answers to this in terms of quality and cost. As an example Tokelau makes use of the Teachers' College in Samoa and of that in the Cook

Islands. There could well be extensions of this kind of co-operative training, in full or in part, by other small countries, for example, perhaps, a content program in a larger country followed by a pedagogical one at home. For secondary teachers the University of the South Pacific has provided a regional answer with its Dip. Ed. and B.Ed. courses, both internally and through its extension services and satellite centres through PEACESAT.

The curriculum

We now come to the curriculum and the syllabuses within it. This has received much attention in the Pacific over the last ten years and has been the subject of considerable debate in relation to developing strategies for more 'relevant' education and to ensuring that curriculum objectives are related to educational objectives.

There is of course no such thing as a 'relevant' education in a general sense because it is fairly specific to individuals and their possible future. There are dangers in totally discarding a so-called academic curriculum in favour of a more practical one because that could be irrelevant for future professional people.

While there is no simple answer to what is relevant the most appropriate kind of education seems to be one which will allow for change and for choice without alienating pupils from their culture and environment and which will produce a pool of talented individuals in all fields of endeavour, from political, administrative and professional levels to the various skills in the other working sectors. (The proportion will change as a country develops.) It should also foster competence and appreciation of technical and cultural fields and in social relationships. Mr O. Tammur, Papua New Guinea's Minister for Education, Science and Culture commented in February 1978:

Whether we like it or not we have become a part of the 20th century and a member of the modern world community. We have a national airline that operates jets, a sophisticated communication system, an ever increasing need for more roads and bridges; we have minerals, hydro power and natural gas resources which we intend to exploit in our own way, for our own benefit. To do this we need engineers, technologists, scientists, artisans, tradesmen, managers and executives, as well

as unskilled labour. So appropriate technology must be just that, and not a vision of a non industrial society made up of subsistence farmers. At the same time we must ensure that we preserve our identity as Papua New Guineans, our traditional customs that give value and meaning to our lives, above all, become a nation that need apologise to no-one.

To achieve this the curriculum and its application through competent teachers is crucial. There is a need for it to be broadly based, related to and meaningful in that environment. Education needs to be redefined and given new significance so it is rooted in local traditions but gives a reasoned pathway to other choices and visions. Teachers, education officers, administrators and the community need to be involved in working out the goals, the methods and the materials.

When it comes to curriculum renewal there is no general consensus on the way in which this should be done. There is a body of opinion which blames the erosion and collapse of traditional values on the past and present education system which is too westernized, too Europeanized. Such opinion advocates efforts to 'localize' education completely. Mr Kenilorea, Prime Minister of the Solomon Islands, puts this argument in perspective. He points out that, while no one would argue against doing things in the Solomon Islands way, 'to Solomonize' education to its logical conclusion might be 'pacifying to the emotional component of man but not to the whole man'. It would not prepare man and the Solomon Islands nation to face the world of today. 'Pacific man would be hampered if he was brought up in a closed, static and insulated society for man is a thinking being and thoughts are the foundation of progress and change'. Mr Kenilorea sees the need for compromise — for an education system that will permit his people to advance and live 'with their heads held high in a technological age whilst reviving and retaining the best of their Melanesian cultural heritage'.

Once an education system and curriculum is in progress it takes some time to change direction because of the need to develop new teaching materials, retrain teachers in their use and change the expectations of pupils and parents. If there is a substantial subject change such as increased technical instruction then teachers have to be trained or imported. And by the time the change is fully made conditions may make the new courses inappropriate.

This has been evident in the small Pacific states. The secondary system designed initially to provide a pool of skilled people to assume administrative and professional roles in the various Pacific countries was achieving its goal about the same time as those countries became independent or self governing. Since then, while new directions were being planned, the secondary systems grew on the old pattern. The chief defect of that pattern was curriculum materials.

There had been and still is little available research, either analytical or descriptive, which could be incorporated into teaching techniques or teaching materials. Most secondary teachers, both government and mission, came from temperate metropolitan countries, or from the formal Indian system to some Fiji schools. They took time to relate to and use the local environment as a source of examples in science, in social science and in art. A large proportion of time was necessarily spent on teaching English and the pressures to study material for the various competitive examinations allowed little time for technical and cultural studies. Hence those studies lost standing.

It is important to say that many teachers developed good relevant courses and lessons and prepared written material. But much of this was personal in concept and new teachers, not immediately realizing its value, developed their own material. There were few local teachers in secondary schools to carry the ideas on. Frequent change of teachers and educational administrators coupled with a lack of local research on teaching and learning causes a continuing erosion of expertise, and constant rediscovery of the wheel.

It was pointed out earlier that a crucial problem in small states is having enough people to work in specialist areas such as the curriculum and its evaluation and, particularly, having training in those areas. This is not only in the professional curriculum development area, but extends to illustrators, photographers and technicians for printing materials and maintaining reproductive and audio-visual equipment.

Each state understandably reserves the right to develop its own curricula according to its needs but the shortage of trained personnel can mean a great length of time in developing new materials as well as some doubt about the quality of those materials. Because of the

geographical and professional isolation of most Pacific states, curriculum workers may not be aware of materials being developed elsewhere — materials which with some modification might be eminently suitable for their purpose, fairly quickly implemented and much less costly.

This is certainly an area where regional answers seem worthwhile. There would be great value in more regional visits by curriculum developers and teachers in the various countries. While no one would suggest uniformity of curriculum materials there are some examples of successful regional efforts. One is the Tate Oral English Course, originally written for the Cook Islands while Miss Tate was working for the Islands Education Division in the New Zealand Department of Education. This course was adopted by all Pacific island countries. She later completed Books 12-15 when working for the South Pacific Commission. Another was the UNDP Secondary School Curriculum Unit set up in Suva in 1970. Because of its wide range of expertise and funding, it was able to produce new, more relevant teaching material for the Forms 1-4 level. Most countries are now using some of this material but modifying it according to their needs, which is the essence of curriculum development. While not completely successful in the difficult scattered island region the Unit at least accelerated interest and engaged local teachers in writing materials. Associated with this new curriculum was the training of indigenous secondary teachers at the University of the South Pacific. So the concepts, built into training which had a strong local flavour, are now becoming an internalized part of the permanent teaching service.

It is vitally important that continued curriculum support be given, either bilaterally or by the University of the South Pacific, to maintain impetus. The University seems well placed for this. I might mention two examples. With funds provided by New Zealand the University is assisting Tonga with secondary curriculum development and is helping several countries to develop techniques for assessment of pupils' standards.

Assessment

As pointed out earlier the Pacific countries have long had their own syllabuses regardless of how relevant they may or may not have been and they have assessed these by examination at various levels, usually Forms 2 and 4. They have had their own national certificates for national purposes,

for example Fiji Junior Certificate, Tonga Higher Leaving Certificate and so on. Above that level the numbers of students were very small and it seemed convenient to follow a recognized overseas examination (which would not only help to raise academic standards but also allow entry to overseas institutions for further training). The Western Pacific countries took Cambridge Overseas School Certificate, Tonga, Western Samoa, Niue and the Cook Islands took New Zealand School Certificates and Fiji used both until changing completely to New Zealand School Certificate. By 1960 there were eight schools in Fiji, Samoa, Tonga, Cooks and Niue taking New Zealand School Certificate. There were also quite a number in Fiji taking Cambridge. Most of these changed to New Zealand Certificate over the next few years. A sudden explosion at School Certificate level occurred as standards of teaching at all levels rose after the long postwar haul. By 1965 there were 22 schools taking School Certificate, 57 by 1970, 84 in 1975, 93 in 1976, and 130 in 1979. Two-thirds of these are in Fiji and four-fifths of the 10,000 candidates are from there.

During the 1960s there were three issues that became apparent: first the awareness that the Cambridge and New Zealand prescriptions were not designed for the Pacific and needed modification if they were to be continued; second that with the small countries becoming independent or self-governing they wished to have their own Pacific-based certificates; and third the establishment of the University of the South Pacific with its own standards and entry requirements.

The UNDP curriculum program gave countries an awareness of the possibility of developing local and regional certificates at the fifth form level based on a continuation of that program. As a result discussion on ways this could be done occupied the minds of directors of education over a number of years at their regional meetings. Here seemed a regional answer to their assessment problems. At first it seemed easy and the University of the South Pacific commissioned a report by Mr J. Deakin of the Cambridge Syndicate on the setting up of a South Pacific Examination Board. By the time the report was released in 1973 the climate had changed. Some countries thought the idea a little premature -- and it was certainly costly; others were beginning to think that a regional examination was not the answer to their national objectives, and that a Board of Educational Cooperation which could not only help with assessment but

also with advice on other educational problems if requested, would be more appropriate. So the proposal lay.

Conscious of the increasing number of School Certificate candidates and of the downward control effect on teaching below Form 5 the New Zealand Department of Education offered to provide alternative prescriptions and papers at School Certificate which were more environmentally and culturally based and which could be devised with help from teachers in the countries of the region. At the SPC Sixth Regional Education Seminar in Honiara in 1974 the Directors requested that this offer be accepted as an interim measure, and that the urgent subject areas were English, Mathematics, Science and Social Science. As a result, a survey of a country's wishes by an officer of the New Zealand Department provided a framework on which alternative prescriptions and papers have since been developed. These are English, Mathematics, Science, Physical Science, Biological Science, Geography and History.

The method of developing these was broadly as follows. Suggestions were sought from the various countries and a common prescription drawn up. This was then circulated for comment, redrafted, recircularized for approval and finally implemented after approval by the School Certificate Board and the Minister. In the case of History which adopted a new approach New Zealand assisted Pacific teachers by conducting an in-service course in Fiji for key teachers from the countries concerned. Physical Science and Biological Science were developed at the request of Fiji, and New Zealand supplied two science specialists to work with the Fijian Curriculum Officers over a period.

All of the South Pacific Option papers rank *pari passu* with the New Zealand papers and are examined within the normal School Certificate machine. The papers are set in conjunction with Pacific teachers. Island personnel are involved as assistant chief examiners and moderators. Physical Science and Biological Science are moderated and marked in Fiji. In this connection we again come to the 'small state' problem. Apart from Fiji there are surprisingly few indigenous graduate teachers in the secondary systems and it has often been difficult to locate suitably qualified teachers as moderators in the various subjects. This, at present anyway, is an indication of the problem small countries have of setting up their own assessment system at the upper secondary level. So again there seems need of a

regional answer and that brings us back to the South Pacific Board notion.

In 1975 Pacific directors agreed on a proposal to set up a South Pacific Board for Educational Co-operation and to have it associated with the Psychological Assessment Unit of the University of the South Pacific. However, the University was beginning to change direction and to establish institutes. It also began to feel that it would be unwise to be seen as an examining body as this could determine the nature of teaching in the schools of the island region. At the same time there was a growing awareness that, apart from assessment, the University through its Institute would be able to carry out many of the functions seen as part of the 'Boards' role. In this light it was finally decided by Directors of Education in 1978 to recommend the establishment of a Board of Educational Assessment which is at present in the process of being set up to begin operation in 1980.

The Board itself, which will have a director and executive secretariat located in Suva, will consist of Directors of Education from those Pacific countries wishing to join. In addition the directors have recommended that there be a representative from the University of the South Pacific, South Pacific Commission, Australia, New Zealand and the United Kingdom, these five having consultant-observer status. Initial funding and accommodation is being provided by the South Pacific Commission and New Zealand has provided an interim executive officer to assist the Board during the establishment period. Subsequent operating costs are planned to be met by the member countries (25 per cent) and by Australia, New Zealand and the United Kingdom (25 per cent each).

The functions of the Board are to train personnel in assessment procedures; assist in the development of assessment instruments; assist in the moderation of assessment instruments and procedures developed in the countries of the region; and to approve prescriptions for and provide examinations for such subjects as are determined for regional assessment towards national certificates.

We would hope that eventually the Pacific Option papers for New Zealand School Certificate would be incorporated in the Board's functions. The Solomon Islands has recently established its own School Certificate with assistance from the University of New England and the University of the South Pacific. The Cook Islands has also, at the first year

Form 5 level. These developments could eventually fit into the Board's moderating role. I have discussed this matter of assessment at some length because it is a very good example of a regional answer to a very difficult educational problem faced by the small island states. The idea has had a long and painful gestation and it may not even work. But, at least it is an attempt to provide national certification with international portability. And it gives a flexibility which there would not have been if countries had locked themselves in to the originally proposed Examinations Board.

Language policy

The small states face great difficulty in the language area. They realize that to take part in the modern world a facility in a metropolitan language is desirable. Not only is this so for commerce, trade and tourism but for the technology of development and for regional interchange and co-operation. But language is a very emotive subject and there is the fear that the vernacular will be eroded. Language policy thus needs to be pragmatically based on the premise that the metropolitan language is simply a tool, like mathematics, and it should not be regarded as a threat to indigenous language and culture. This is easy to say, but not to achieve.

There is considerable linguistic variety in the small island states. Tonga, Niue and Western Samoa have strong homogeneous languages. So too do the Cook Islands, Tokelau, Tuvalu and Kiribati although there are minor variations in some of their islands. Fiji has basically two major languages, Fijian and Hindi, but there are a number of minor languages. The New Hebrides and Solomons have considerable linguistic variety with the added complication of 'pidgin' and in the New Hebrides French as well as English. There is a grave shortage of reading material of all kinds in the vernacular. The smaller the country or the smaller the linguistic group the greater this shortage is likely to be, and the less literate the population. There are few able writers who are not busy with other work and printing costs are high per unit. Smallness affects total book production either educational or recreational. Few commercial publishers would consider risking publication for such small markets. Regional co-operation in book production may well be worth considering. There are some successful examples; the South Pacific Commission Literature Bureau has produced many useful materials and the recently established South Pacific Creative

Arts Society and the South Pacific Social Sciences Association are producing an increasing flow of literature by Pacific writers.

Training

I have mentioned the problem of teacher training. But the whole question of post-school training is a matter of great concern to Pacific countries. Earlier in this paper I referred to the inadequacy of former policy on training one person for one job and indicated that most training took place in metropolitan countries. It is only within the last few years that suitable training facilities in tertiary and technical fields have been available in the region. Even now certain forms of training, particularly trade training which requires practical apprentice type work, present difficulties as it is not easy nor politically acceptable for, say, Tongans to be working for an employer in Fiji or Honiara when there is local unemployment. Some measures are overcoming this where block practical training can be done in the home country. The expenses of travel for this must be taken into consideration. The cost of travel and freight in the scattered island region is a serious obstacle to development generally.

In-country or in-region training has the advantage of being more relevant, less alienative to the trainee during training and on return, and it strengthens a regional consciousness. Further, as the qualifications may not be acceptable overseas, there is a greater chance of the trainee remaining in his own country. The long record of success in the region of the Fiji School of Medicine has been due to this. There are some disadvantages. One is the need for excellence, in its appropriate context, for continued improvement of island development. The other is the need to ensure that the training is not wasted if the trainee eventually migrates. It seems desirable to consider acceptance of the regional qualification at some comparable metropolitan level so that a little topping up could reach the required metropolitan standard and enable a more useful contribution to the host society, as well as ensuring personal dignity. This principle has been recognized by New Zealand for Pacific trained teachers who are now residents in New Zealand. A year at teachers' college and subsequent guidance in schools leads to a New Zealand Certificate.

Every country has shortages in skills. In short supply at present are secretarial (including shorthand and typing), office and business administration, technical skills in building and engineering trades (including foreman-type skills), and those to do with improving agriculture and animal husbandry. But apart from secretarial and office work which is popular, there is insufficient incentive to train for the other fields. Wage levels, job security and status mitigate against them though island people work at them in the New Zealand scene, but for different reasons. Shortages in the trades and engineering fields may also be due to the cultural and technological base. Unlike New Zealand and Australia where from an early age boys absorb a feeling from playing with construction toys and helping father fix the car or the outboard motor and have an ambition to be engine drivers or astronauts, Pacific boys are less mechanically experienced.

Universities and élitism

The new universities in the region, the University of the South Pacific and the two in Papua New Guinea, are making a significant contribution not only to education for development but to development itself through research and consultancy. It has taken a long time for the universities to gain acceptance compared with those of metropolitan countries and the communities have felt uneasy with a university presence, the essence of free thinking, in the midst of their traditional societies. The University of the South Pacific with its two campuses, one in Fiji and one in Samoa, and its country based extension centres, is committed to serving the needs of the island nations of its region. Increasing demands upon it are taxing its resources. Its maintenance and further development are quite outside the funding capacity of its small client countries at present growth rates.

In the view of the community, university education has a very élitist image. Most education above Form 4 and frequently above Form 2 had a similar image. It seems important that attempts should be made to break down this notion not only in the mind of the community but in the consciousness of students themselves. Some examples show promise in this direction. There are plans in both Tonga and the Cook Islands for training teachers, agricultural technicians and extension workers, technicians, tradesmen and commercial workers in the same institution using some

common facilities. One result of this could be a mutual respect and understanding between teachers and other workers when later working in the community. Fiji has pioneered schemes whereby school students carry out voluntary work in villages. The University of the South Pacific is looking closely at a proposal for students to 'study and serve'. In essence this means that students can contribute their special skills at times during the course of their training. Such a scheme cannot only more closely identify the university and its students with the community but can provide useful skills as well as improving academic performance and application. A number of institutions throughout the region are considering 'sandwich type' courses, the components of the 'sandwich' being variable. Some involve practical work before theoretical study both as a means of gaining experience in the work place and as a screen for suitability, before embarking on further stages of an expensive course.

In general the South Pacific island countries have a strong and well established school system on which to build their elements of development education. Other educational institutions at both national and regional levels are beginning to provide the specially skilled development personnel. These institutions often face opposition from the cautious. When the University of the South Pacific was established there were many who argued against its need apart from that of a secondary teacher training college. In fact it could well have been established earlier. A survey shortly after its establishment suggested that the region could do with several hundred graduates and diplomates in agriculture alone, to serve industry, farming, and, not least, if school programs were to flourish, in teaching. It is only now that degree agriculture is available. The problem in small developing countries is a need for a substantial number of skilled people in a hurry. But because of their youth they will likely jam the job market for many years and cause dissatisfaction among later crops of graduates from schools and training institutions. To overcome this, in addition to careful planning by governments, the teaching institutions need to have the adaptability and the will to discontinue or modify particular courses as the needs change. One would hope that these institutions would have the conscious flexibility and self disinterest not to continue teaching fish spearing long after the lagoons have become clouded by pollution.

What of the future?

It is difficult to foresee how the increasing populations, already young in structure, and in several small countries estimated to double by the year 2000, will adjust to the resource base they are developing. The rapid population growth must feature largely in educational planning by governments because education will be demanding more and more of the available financial resources. It may very well be that the traditional kind of educational organization may need to come under review. The organization of education in the small states and the idea of education for all as a right rather than a privilege, which it has been, is very Western in concept and has individualistic goals. Yet most Pacific societies are structured on a communal co-operative basis. Perhaps the communities themselves should be more deeply involved in the organization and support of their educational institutions.

There are many new and interesting experiments going on around the world as a result of rethinking national educational objectives and of ways to achieve them, for example the concept of education for self-reliance in Tanzania. And in Southeast Asia innovative experiments are being tried in non-formal education, increased pupil-teacher ratios, various forms of distance education, the more economical use of educational buildings by double shifts, and their use for adults and out of school youth. The situations in Asia and the Pacific are by no means comparable but these and other experiments are well worth watching. That is not to say that there is not innovation in the Pacific. There are, for example, teacher resource centres in the Solomon Islands, reading programs in Niue, community schools in Kiribati and the modern technology of PEACESAT to name a few.

One way of making greater use of these ideas lies in greater interchange of education personnel within the island region as well as outside. This is likely to be more permanently profitable than the sporadic visits of outside experts, though these can be complementary. Recent rapidly growing interest by the outside world in the Pacific islands has brought with it new problems, not least in the impact of people with all kinds of different solutions to educational and other matters leading to some lack of ordination and conflict of effort. A greater range of ideas and technology, while confusing in their variety, have among them the seeds of solutions. The strategy must lie in finding a way

by education and by information dissemination to build up the capacity for technological choice, adaptation and innovation and the realization that not all imported technology is superior to traditional methods. Commerce tends to create wants rather than satisfy needs and while no one is immune to novelty a capacity for reasoned choice might counsel against replacing traditional planting methods by small tractors in an increasingly costly and scarce energy situation.

In education the lessons may be similar. Its history in the small states has tended to produce very Western models, but by choosing from a wide range of ideas and incorporating them into the cultural matrix there could emerge endogenous education systems built on the unique character of each island society.

Chapter 17

Training for the South Pacific: problems of smallness

Neil Hope

One of the chief lessons of recent years is that the process of economic and social development is a great deal more complicated than most people thought. There has been a failure to distinguish between 'growth' and 'development' or 'progress' and an assumption that increased capital resources, almost by themselves, would be enough to initiate the great take-off and send developing countries on the road to 'self-sustained growth' and eventual affluence.

Despite billions of dollars spent on international aid and billions of words spoken and written on the subject, the results have been disappointing: successful development remains elusive. According to the 1978 Review of the OECD's Development Assistance Committee (DAC):¹

National incomes have grown considerably in most of the developing world and countries have forged ahead. But much of the advance has been neutralised by population growth and the remainder only partially passed on to the poor. Poverty remains an acute and pressing problem for many countries ...

Conditions are unlikely to become much easier in the next decade. As well as the energy crisis and continuing economic difficulties in the industrialized countries, there is the 'Demographic Tidal Wave'. In most developing countries, the proportion of the population comprising young people under 15 years of age exceeds 40 per cent, compared with 23 per cent in the United States and 26 per cent

¹Maurice J. Williams, Chairman, Development Assistance Committee, *Development Co-operation - 1978 Review*, OECD, 1978, p.9.

in Europe. 'These young people are not an abstract statistical projection of population growth; they are already alive and during the 1980s they will be entering the labour markets and placing further pressures on jobs, schools, housing and other already inadequate facilities of the Third World.'²

World opinion now emphasizes the 'basic needs' approach to development, designed to achieve a better synthesis of social and economic objectives. In the words of the International Development Strategy of 1970:

The ultimate objective of development must be to bring about a sustained improvement in the well-being of the individual and bestow benefits on all. If undue privileges, extremes of wealth and social injustices persist, then development fails in the essential purpose ...³

Education and training

There has never been much doubt about the importance of education and training.⁴ The Pearson Commission of 1969 referred to the 'pivotal role of education in development policy', but criticized previous international aid because it had 'served mainly to buttress classical methods, applied by unquestioning teachers, both local and foreign, trained in a mould cast over a hundred years ago'.⁵

For the government of a developing country, the need for education and training raises agonizing problems of priorities. Resources are scarce, but the need is almost limitless. Should education get the highest priority in the expenditure budget? Is education a prerequisite of all other progress? To what extent is it investment, a contribution to increased output, and to what extent mere consumption? Is it better to have a few well-trained people or a

²ibid.

³UN General Assembly Resolution 2626 (XXV), 24 October 1970.

⁴See W.A. Lewis, *The Theory of Economic Growth*, London, Allen and Unwin, 1955, ch.4, for a study of the accumulation and application of knowledge in economic growth.

⁵Report of the Commission on International Development (Pearson Commission), *Partners in Development*, New York, Praeger, 1969, pp.199ff.

much larger number of partly-trained people? What priorities should there be between technical and secondary education, between adult and primary, between formal and informal, when scarce funds are being allocated? Economic development makes demands on educational facilities at every level.

In practice, developing countries have answered the basic questions in a variety of ways. Some have devoted such large resources to education (often 20 per cent of the annual budget) as to neglect other pressing needs. Some have held back expenditures, in hopes of achieving the economic growth necessary to provide the funds for them. Some have been too poor to have much room for choice at all. Nearly everywhere there has been an insistent demand from the people for more education for their children, as a passport to better jobs and higher incomes.⁶

Naturally, there have been pitfalls. When the former colonies became independent, most of them wanted to have universities, colleges and similar tertiary educational institutions, because of the need for trained people to take over new responsibilities. During the 1960s, therefore, aid donors devoted much effort and money to the task of 'institution-building', with varying degrees of success.⁷

This seemed an obviously helpful thing to do, and so it was — up to a point. With the advantage of hindsight, however, the limitations of such a policy have become evident. The tendency now is to provide assistance in a more discriminating way, with much less emphasis on tertiary education for an élite and much more on general basic education directed at the whole population. In practice, most educational systems are 'regressive': it is easier to get more education if you have had a lot already than it is to get a basic education if you have had none at all.

⁶See, for example, J.K. Galbraith, *Economic Development*, Harvard University Press, 1956, ch.7, including comment on responsibilities of the privileged group who have benefited from educational investment.

⁷See also the 'Faber Report' by the Overseas Development Group, University of East Anglia, *A Report on Development Strategies for Papua New Guinea*, 1973, for the need to control higher education institutions, etc. (p.51).

A USAID report published in 1973 examined the Agency's past 'Education Program Strategy' and concluded that:

The Problem of this decade is twofold. One part is to build *non-traditional learning systems* that can reach very large proportions of their people, with useful knowledge, at acceptable costs. This will require new educational concepts, the design of new systems, testing of those systems before they are fully designed and application before they are fully tested. The other parallel need is to make significant incremental *improvements in the traditional systems*, which will continue to bear much of the educational load.⁸

The World Bank carried out a similar survey of aid to education. Its Sector Working Paper on Education (1974) condemned the undue emphasis which had been given to the modern sector, because of 'overall development strategies which were themselves irrelevant to the societies and conditions of developing countries'. The growing realization that equitable income distribution was not 'an automatic corollary of growth' had turned attention to a development strategy which was 'directed to sharing the benefits of growth as well as to growth itself'. Such a strategy would require a fuller use of available human resources: therefore, it had important implications for education — especially mass education.⁹

The Bank's Annual Report for 1975 summed up its conclusions about this 'basic needs' approach to educational aid and the policies it proposed to follow in future:

In attempting to promote balanced educational development, the Bank believes that minimum, basic education should be offered to all, as fully and as soon as resources permit, and that further education and training beyond the basic level should be provided selectively to improve the knowledge and skills needed

⁸US Agency for International Development, *The A.I.D. Education Program Strategy*, September 1973, p.13.

⁹World Bank, Sector Working Paper, *Education*, December 1974, pp.3-6.

to carry out economic, social and other developmental roles.¹⁰

The Bank's Report noted, however, that these new educational strategies would have to take account of the political background and admitted that 'there are risks involved for developing nations in embarking on highly innovative policies in such an emotion-laden field as education'.

Problems of smallness

The developing countries of the South Pacific suffer from disabilities common to all developing countries. These may be summarized, very briefly, as: low levels of real income and accumulated capital per head and a relative absence of scientific techniques in agriculture and industry. They suffer also from the disadvantages of being small in area and population and, since no two developing countries are completely alike, each of them has an additional set of problems peculiar to itself.

The characteristics of their smallness and its implications have been documented by Shand elsewhere in this volume. It is hardly surprising that the three main types of economic disadvantage to which he referred — the diseconomies of small scale, the reduced scope for specialization and the limited capacity for shifting resources — should have affected the past evolution of their educational systems and now affect the modification of those systems.

Smallness, of course, is relative and so a 'small' state like Fiji must seem quite large to a 'very small' state like Tonga and even larger to a 'micro state' like Tuvalu. Fiji's relatively large resource-base has made possible the evolution of a formal education system comprising nearly 800 schools of various kinds, plus the Fiji Technical Institute and such specialized institutions as a School of Maritime Studies, a School of Hotel and Catering Services and the Fiji School of Medicine. Tuvalu, by contrast, has no more than eight primary schools and one secondary school. Tonga, an intermediate example, has about 180 schools, plus several specialist schools for farm training, police training, nursing training, etc. As a general

¹⁰ World Bank, *Annual Report 1975*, p.18. Similar conclusions were stated in *Overseas Development — the Changing Emphasis in British Aid Policies — More Help for the Poorest*, HMSO, 1975.

rule, the smaller the economy, the less able it is to provide secondary and specialist school facilities.

Moreover, the labour market in a very small economy seldom provides an economic justification for *permanent* training facilities where only a few trained people are required. The Government of Tuvalu would hardly provide an advanced technical institute in a community where the total active workforce is about 3000 persons, including only 500 or so in the cash economy. But since some 200 Tuvaluan seamen are serving on overseas ships and their earnings contribute to the island's GNP, a case has been made for establishing a Marine Training School.

As Shand points out, smallness of population imposes special pressures on governments to provide services, including education. Although the South Pacific countries have schools conducted by church missions, there are few industrial or business enterprises large enough to be able to maintain their own training schemes. Private enterprises conducted solely to provide training (e.g. schools of typewriting, book-keeping, etc.) must be even fewer.

Economic smallness and the added disability of fragmentation raise the per capita costs of education and can cause under-use of staff, buildings and equipment. A school must have at least one teacher and some forms of teaching aids whether the pupils number four or forty. In a poor community, there is little prospect of using local contributions, in place of government expenditure, to provide a needed building. (Voluntary labour can sometimes be a substitute, however.)

The island micro state, exceptionally small in population, land area and economic size, tends to suffer from its disabilities even more than its larger neighbours. Since revenues are very difficult to raise the range of choice open to the government is seriously reduced. Any major change in educational methods or curricula becomes almost too difficult to contemplate; experimental 'pilot schemes' or educational research, an unimaginable extravagance. And if changes can somehow be made, they usually have to be accepted and 'lived with', no matter how badly they may turn out. Mistakes, in effect, are more damaging in a very small country and harder to guard against.

Even if the total population of the South Pacific countries (about 1.8 million, excluding Papua New Guinea) inhabited *one* single, geographically compact and ethnically homogeneous country, it would still be a relatively small country in terms of population, with many of the problems characteristic of small countries. As things are in fact, diversity, geographical remoteness and fragmentation add to the problems of smallness, making 'regional' solutions especially difficult to achieve, hampering inter-island consultations and contacts with more advanced countries, and adding inexorably to the costs of innovations.

There are further disadvantages. Because its total population is comparatively small, and because it is remote from the main centres of international concern, the area of the South Pacific has tended to receive little attention internationally, or has had its problems dismissed as insignificant. The major aid donors, for example, are generally better equipped to deal with very large projects, rather than a host of small ones. The credit-worthiness of large countries is usually higher than that of small ones, however industrious and well-governed they may be. Large countries have more political and strategic 'pull'; they attend more international conferences and their opinions reverberate more loudly.

There are signs of improvement, however. The memorandum prepared by SPEC for the Commonwealth Heads of Government Regional Meeting in Sydney during February 1978¹¹ drew attention to the 'unique characteristics' of the island countries: it was a plea for these to be recognized, rather than for specially favourable treatment. At the recent meeting of UNCTAD V in Manila, resolutions acknowledged that different levels of development exist within developing countries and that island developing countries have special problems requiring special consideration internationally.

Australia's aid program

The composition of Australia's program of official bilateral aid to the South Pacific in 1977-78 is summarized in Table 1. Aid given to education accounted for \$A2.56 million, or 14.1 per cent, of the total of \$A18.1 million.

¹¹Memorandum by the South Pacific Bureau for Economic Co-operation, *The Special Problems of Small States - the Developing Island Countries of the South Pacific*, CHOGRM, February 1978.

Table 1

Australian bilateral aid to South Pacific countries, 1977-78 (\$A'000)

Country	Econ. planning, public admin.	Public utilities	Agric., forestry, fishing	Industry, mining, construc- tion	Trade, banking, tourism	Education	Health	Social infra- structure, welfare	Other	Total
Cook Is.	20	208	—	—	—	52	—	19	—	299
Fiji	559	1645	1421	54	46	489	—	1128	857	6199
Gilbert Is	—	526	65	—	—	137	9	523	219	1479
Nauru	—	—	—	—	—	1	—	—	—	1
New Hebrides	7	469	121	—	—	81	18	95	23	814
Niue	—	—	—	—	—	—	—	1	—	1
Pacific Is (US)	—	—	—	—	—	23	—	—	—	23
Solomon Is	193	769	352	14	74	193	67	37	11	1710
Tonga	52	574	104	31	300	350	271	267	154	2103
Tuvalu	3	292	—	—	—	54	7	1	2	359
W. Samoa	97	535	231	1864	404	264	—	286	120	3801
Unallocated	—	25	107	16	34	920	3	100	137	1342
Total	931	5043	2401	1979	858	2564	375	2457	1523	18,131
%	5.1	27.8	13.2	10.9	4.7	14.1	2.1	13.6	8.4	100

Source: Statistics Section, Australian Development Assistance Bureau, October 1978.

In the sectoral analysis, only public utilities, with \$A5.0 million, received a higher percentage (27.8 per cent). The figure for educational aid is to some extent understated, because training activities conducted under aid projects do not always show up in the statistics. The Australian program also includes aid to the University of the South Pacific, a regional institution.

There are several forms of current and programmed aid for training and education.

1. Buildings and equipment

- The School of Social and Economic Development, USP.
- An 'accountable cash grant' for Community High Schools, Gilbert Is.
- The Marine Training School, Tuvalu.
- Equipment for the Printing School, Fiji Technical Institute.

2. Training in Australia

- Awards to enable students/trainees to attend courses at academic institutions in Australia or special group courses on specific subjects, e.g. Tuvalu teachers attached to Canberra schools for practical training.

3. In-country training

- Training courses conducted by Australian staff, with local educationists, for specific purposes, in South Pacific countries, e.g. the Post-Graduate Certificate in Teaching courses conducted for the Government of Fiji at the USP.

4. Third-country training

- Awards to enable students from a South Pacific country to attend courses at institutions in another developing country, e.g. third country training awards at the USP, UPNG, etc.

5. Assistance from Australian educational experts

- The secondment of staff members to schools, institutions or Education Departments.

- Assistance with the introduction of new subjects into school curricula, educational administration, etc.

6. Project-related training

- On-the-job training provided in-country as an adjunct to Australian aid projects.
- Training provided in Australia for local staff concerned with Australian aid projects.

Conclusion

There are good reasons for treating the South Pacific as a 'special area' so far as external aid is concerned. The disability of smallness — plus fragmentation and remoteness — adds to and exacerbates the ordinary problems of under-development. Normal criteria do not apply and experience in other countries is not a reliable guide. But the problems are not simple of solution just because the countries are small.

Aid to education and training should be related to local circumstances in each country, rather than be doctrinaire. It should take account of national aspirations and consider social costs as well as benefits. There is an obvious need to strengthen existing education systems and to help in adapting them. The pressures of population and the real requirements of the labour market must be taken into account. Inexperienced governments should be helped to make educational decisions and to seek innovative solutions, especially in non-formal education. Inter-country consultation and collaboration should be encouraged.

Australian aid can be particularly helpful by providing 'temporary training capacity', in cases where the establishment of permanent facilities is economically unjustifiable. In-country training courses are less expensive than courses conducted in Australia, can provide relatively low-level skills in an effective way, and avoid the dangers of cultural alienation. The University of the South Pacific has an important role to play in such activities and there is scope for other institutions to participate as well. 'Third country training' offers similar advantages: in addition, it helps to broaden experience and encourage the growth of a regional consciousness.

The current Australian program of aid to education and training, useful though it is, has developed in an unco-ordinated way, largely in response to piecemeal requests from aid-receiving governments. There is a need to integrate it more closely with other forms of aid and to ensure, so far as may be possible, that it is planned in such a way as to maximize the benefits and get the most out of every dollar expended. More attention might be given to innovative aid practices and to the 'basic needs' approach, though it will be necessary to bear in mind the limited absorptive capacity of the island countries and the relative fragility of their social and economic structures. Basic education, or education for citizenship has a particular importance in circumstances where there is a sensitive relationship between governments and their electorates and where vital decisions affecting the future have to be made.

The underlying complexity of providing educational aid and the need for care in planning and administering it may be summed up in a final quotation:

One measure of the difficulty of judging what should or can be done about education in the future is that we cannot perceive very clearly what has happened in education in the recent past. Even in a much longer perspective, it is hard to link causes and effects, costs and benefits, inputs and outputs in a clear-cut and definite way. Few human endeavours are as beset by variables, inconstants and unknowns as education. Even those who could approximately agree on the proper aims of education have often found themselves in strenuous argument with regard to how these objectives were to be achieved ...¹²

¹²USAID, op. cit., p.1.

Section VI
Administration,
Law and Politics

Chapter 18

Bureaucratic organization for development in small island states

Colin H. Allan

I propose in this paper to interpret the word 'development' in a wide but selective sense. I shall therefore refer not only to economic considerations but also political and constitutional aspects: but I will begin with geographical and historical considerations. I will speak mainly of the island states with which I am largely familiar; inevitably, I shall speak with regard to the British approach to decolonization and the creation of island states; and I see my role as that of a gadfly. I begin with one or two geographical considerations.

The late 1960s and the early 1970s saw islands generally, and many island states, become very fashionable — especially those in the tropics. Islands conjured up visions of white beaches, blue seas and skies, getting away from it all, night clubs, lovely girls, and sometimes casino operations; there were some quite extraordinary professional and unprofessional international deals in respect of Pacific territories including fraud on a vast scale. Police forces were stretched beyond limits. Recent cases such as the Federal Bank of Dominica in the Caribbean will be familiar to you. Not quite so familiar perhaps is the case of the Commercial Bank of China in the Seychelles in the Indian Ocean. Above all there were massive dealings in real estate in all oceans. The tourist industry discovered dozens of new islands and so, I fear, did some diplomats, to the fury of their political masters because of subsequent aid demands. Some islands became popular tax havens: it was very popular in Sydney, during the most recent mining boom, to establish a tax avoidance operation in the New Hebrides, where, facing the inevitable, great trouble was taken to introduce controls which would provide for a modern

but clean operation. But islands and island states, by virtue of their very geography, suffer acute problems from being encircled by blue seas. The provision of air, sea and telecommunications infrastructure is very expensive indeed, but so necessary. And frequently they attract curious entrepreneurs.

Islands sometimes are well suited as bases for fishing development, and, with the concept of the 200-mile fishing and economic zones, the infrastructure necessary, such as an air/sea capability, to police these resources is inevitably complex and certainly expensive; very sophisticated and technically competent fisheries staff is needed. Off-shore oil drilling presents even more unusual problems, as has been found in island states such as Mauritius. And since most islands are blessed with wildlife — whether the turtles or dolphins of the sea, or the tortoises, birds, butterflies and insects of the land, island states have inevitably been subjected to the eagle eyes of the conservationists — what, they ask, will the island government do to protect such and such a species of turtle or dolphin from the demands of traditional custom and the ravages of other more modern predators?

In a continental environment, or even a largish island environment such as New Zealand, the conservationists fight a losing battle against the private sector, the unions, official insensitivity and what is simply described as a way of life. It is different in a country like the Seychelles where the private sector, the government and people are committed to preserve what they have got. While surveillance is comparatively simple, geographical circumstances still make the cost of conservation and administration and the infrastructure, necessary to viability, very expensive indeed. In fact, the reality is that government of almost any island is expensive — especially in the Indian Ocean where you have so few neighbours and nothing much between you and the South Pole.

I turn now to some of the historical considerations which have affected the bureaucratic organization for development of emerged and emerging island states. I pass over the fact that the Seychelles islands were originally uninhabited, except by tortoises; those islands were developed by a few eighteenth century French planters and their slaves. And I would not attempt to describe the state of internecine warfare which existed in Melanesia in pre-annexation times.

It was in 1949, at a Colonial Administrative Seminar at Oxford, that the late Lord Milverton, when questioned about the relevance of the development of self-government for island communities such as the Solomon Islands, said that there would be little need to think about such problems until nearer the end of this century. (Lord Milverton as Sir Arthur Richards had been Governor of Fiji and High Commissioner for the Western Pacific in the thirties.) At that time the Solomons budget was balanced at just under £50,000 per annum. It was not really until the early fifties and the approaching independence of Ghana that administrative officers in the field started thinking about and discussing possible needs of independent Pacific island groups. And although some perfunctory thought was being given in the Colonial Office, ministers and officials were more concerned with Africa, Malaysia and the West Indies. Administrations such as the Solomons, the Seychelles, the Gilberts, and even Fiji, with tiny secretariats concerned with postwar development simply did not have the money, the will, the time, or the necessary staff to apply themselves to the implications of possible independence at some remote date in the future. And few of their peoples ever thought about it.

Besides, in those days, few island colonies were thought of as viable economic and political units. Instead, for this and a variety of other reasons, federation was seen as a possible solution. Eventually, the Malaysian, the Rhodesian, the West Indies federations all collapsed. The failure in 1962 of the Federation of the West Indies, established in 1958, was particularly disappointing — it was regarded as the best constitutional and political formula for the West Indies. It was hoped that it would prove to be a model for the Pacific and out of it emerged, in 1967, the Associated State concept with Britain responsible for Foreign Affairs and Defence. This in turn led to the Anguilla affair because of disillusionment with government by St Kitts-Nevis: only now are the Associated States moving hesitatingly to full independence (Dominica and St Lucia became independent in 1978, having followed Sir Eric Gairy's Grenada which achieved independence in 1974). But failure in the West Indies did not discourage kite flying in the late sixties about the possibility of a Melanesian Federation in the Pacific. In the New Hebrides, the French made clear their reluctance even to consider it. In retrospect, it would never have worked — national differences in the Melanesian chain are far too great.

The concern about lack of viability and the economic solution led to what became known as the 'Ten Year Response': throughout the sixties, administrators usually gave a territory ten years to independence. The years went on and on and this adequately covered the fact that there was no real timetable, let alone a policy. Nevertheless, Western Samoa, Nauru, the Cooks and Niue, had all moved towards various forms of self-government and independence by the late 1960s. The Cooks and Niue are still stuck with a somewhat ambiguous constitutional arrangement. Tonga re-entered the 'Comity of Nations' and assumed responsibility for its foreign affairs in June 1970. Nauru accepted responsibility for its foreign affairs from the beginning but avoided joining the United Nations or the Commonwealth. These individual developments, for the sake of viability, were carefully devised to avoid a top-heavy government machine — not always with conspicuous success.

In the mid sixties, Britain and many colonies were concerned as to how the tiny legislatures could afford to participate effectively in the government of the country, without dividing down the middle and cauterizing themselves with bitter party or traditional strife as some island states now do or have always done. The Seychelles innovated the 'committee' system of government with its modest bureaucratic organization — but found it wanting, largely because a bitter two-party system organized by two rival leaders, both ambitious for power, killed the experiment. It lasted three years and ended in 1970. The committee system together with a Governing Council was tried in the Solomon Islands and lasted five years. It was believed to be suitable to Melanesian custom — which, it was said, required that issues should be talked out until a consensus was reached: but eventually the Solomons abandoned the system too and returned to the Westminster formula which Fiji had already adopted as the framework for its independence constitution in 1971.

In summary, the Seychelles and Solomons experiment with the committee system and a governing council, the limited forms of independence achieved by Western Samoa and the Cooks and the initial approach of Nauru can be seen, in retrospect, as perhaps brought about by a reluctance to embark on expensive and complex forms of bureaucracy, in order to preserve economic viability. The passage of time, improved aid opportunities both bilateral and international, better communications and the new demands being placed on

and needs felt by small island states have all combined to encourage a growing desire by such states to equip themselves better to deal with the world about them. Furthermore, they are now much less inclined to dissolve into anonymity. There are new attractions in assuming a place on the world's political stage.

The failure of the West Indies federation and its subsequent fragmentation into Associated States, and later the separation of the Gilbert and Ellice Islands, continued to persuade decolonizing powers, governors, their expatriate advisers and administrators of small emerging island states to encourage the maintenance of a low profile, avoiding diplomacy and keeping the bureaucratic machine under control — at least to the minimum required by Western aid donors — avoiding grant aid, or certainly working one's way out of it. But some national politicians thought otherwise and credibility at home and abroad seemed almost to depend on a certain *folie de grandeur*. Few leaders and politicians of small states have not felt the attractions of being courted, not just by the West but also by the East. And the reality is that a role — however small — on the international stage is all part of the emergence of a national political consciousness. People have come to expect it. Besides, the emergence of EEC aid programs and the ACP grouping has changed the scene radically.

I turn to the vexed question of the bureaucracy of diplomatic representation, which is so expensive. Countries like Mauritius, Fiji, and Seychelles usually began with a mission in London — the Ambassador later being accredited to Brussels and the United Nations. Papua New Guinea on independence opened rather more embassies and then closed some of them. The Solomons went for a roving ambassador, but using the British Foreign Office to act on its behalf. The Seychelles has always pursued an active foreign ministry — now combined with tourism. It pursues an active role — often very successful, as we have seen recently in respect of the whaling industry. Various other formulae were tried. The Cooks and Niue (and Western Samoa initially) used, I think, the New Zealand Foreign Affairs Department. The full scale Ministry of Papua New Guinea was also responsible for foreign trade. But many have preferred to run foreign affairs as a division of the Prime Minister's Department. Advice of decolonizing powers has been discounted and all the appurtenances of diplomacy have been hoisted on board — but, I fear, largely on an *ad hoc* basis. Perhaps it would have been

better to have recognized the inevitable and plan from the beginning on a coherent and orderly basis — it might have been cheaper and one would have bought time and experience.

Constitutional considerations

Modern constitutions usually begin with a declaration of faith — power from the people or from God. Even before independence the Bishops of Mauritius were included in the Personal Emoluments section of the Estimates — an extraordinary anachronism! Then follows a statement of fundamental rights which, in the case of those countries which have them, can often keep several ombudsmen in business for years — or give employment to young lawyers.

A statement about who is to be head of state — or whether the country is to follow a monarchical or republican system — begs the question: what can a small island state afford? In the Seychelles we were always told that sentiment would never permit a republican system of government. But when the decision had been taken the monarchical concept was buried without fuss. The republican system is in fact much cheaper, especially if the president functions as an executive or working president, as is the case in the Seychelles and now Kiribati. But whether the system is monarchical or republican, it is difficult to see how, in a small island state, the governor-general or president can avoid being elected by some process of the Assembly — and all that that involves. Consensus is possible but it does not always work unless there is a well tried party system.

Speakers and deputy speakers have to be found or chosen by the Assembly — not always from within the House; and not always can they be found from the private sector. Often they are civil servants who may be retired for the purpose.

In large states, the executive — the Prime Minister, Ministers, Cabinet, Secretary to the Cabinet, Attorney-General — are taken for granted. But for very small states it is a different matter. In practice the organization to support an executive for 10,000 people is about the same as one for 60,000 or 200,000. And for very small states, without a party system, it must be a temptation for a prime minister to ensure supply in the legislature by creating sufficient ministers to buy more than half the members. Ministries can of course be created by detailed work method studies or just cobbled together to suit political exigencies.

Most island states pursue an orderly system of cabinet government but there are some states where the conventional regular meetings with carefully prepared papers and orderly minutes have been abandoned informally. Government has become verbalized and decisions are taken at receptions, parties, in the backs of cars, on aeroplanes, at the beach, by telephone or telex and even in bed. The Secretary to the Cabinet must have his ear pretty close to the ground and to those who constitute the inner Cabinet.

Most island states have a single chamber parliament. It is less expensive. This certainly makes sense as the clerk's office is barely able to service a single chamber as it is — and members need a great deal of help. On the other hand, it does limit the talent available. An upper chamber of chiefs or traditional leaders might work in the Pacific but expense and additional bureaucracy are the main objections. Where a party system of government has not been fully developed, special arrangements are usually provided for recognition of an official opposition or independent groups. Not all assemblies have their proceedings broadcast but where this does happen, members tend to address their constituents, rather than the Speaker, though much mention is made of him. But it is also a forum for open government — especially when Hansard reporting breaks down, as is common.

Island states usually find the conventional legal system with a High Court and a Court of Appeal extremely difficult to staff. Even so, they have created additional posts such as District Magistrates, or Directors of Public Prosecutions, or Public Solicitor and Ombudsman. The filling of such posts by expatriates can become embarrassing as Mr Somare in Papua New Guinea has found recently. It is also very expensive indeed and one often wonders whether or not a simpler system could be found. But lawyers will always have to be consulted. Financial provisions enshrine the powers of audit and provide for Public Accounts Committees, which in some cases can be extremely effective and feared especially if inquiries are pursued with rigour; not so in other cases.

Public service, police and judicial commissions are far from easy to staff — especially in the case of the former from the private sector. Annual salaries as opposed to payment by appearance usually attract. In Fiji I believe the Public Service Commission exercises a substantial management role in the Civil Service. But the PSC is not always

linked to training needs and sometimes the minister responsible for the public service does not always have responsibility for training. The relations between the public service and ministers are usually much influenced by whether or not civil servants can easily enter parliament. Where they can, the civil service tends to be politicized. Loyalty to ministers can be superficial and dissatisfaction is often expressed with covert ambitions being shown to replace them at the next general election.

On the other hand, I doubt that many ministers or politicians of island states have been schooled in Mr Harold MacMillan's famous instruction to newly appointed ministers: 'Ensure that you are in charge of your civil servants, not they of you.' The reality is that in the process of decolonization, expatriate civil servants have been reluctant to pass power to ministers. And indigenous civil servants emulate them. As a result, civil servants become a breed who believe they run the country, with a duty to knock new ministers into shape. This can be done by exploiting ministerial inexperience and brief periods of office, their lack of ability, and often of education, their absorption with political expediency and difficulties, and their need to survive; and of course civil servants will exploit lazy ministers who enjoy the fruits of office and fail to do their homework. In the Melanesian Pacific, the Wantok System cuts across all this and makes it even more difficult.

Notwithstanding the training effort, it will be many years before Pacific and Indian Ocean island states can dispense with the recruitment of expatriates, especially in professional fields. Recruitment from Britain necessitates manpower aid agreements which have to be negotiated and monitored. Normally, no indent for staff could be filled except, first, with the approval of the Public Service Office and then the Public Service Commission. By the same token an appointment could not be made by, say, the Overseas Development Ministry or the Crown Agents without first the approval of the PSO and PSC. Similar procedures applied in the case of other countries and, in the Seychelles, most elaborate procedures were required by France. These arrangements did not always work smoothly and when, as often happened, sending countries attempted to pre-empt the situation by making appointments before the recipient countries had gone through all the necessary steps of approval, much ill-feeling and heartburn could be caused. And frequently, donor countries competed with one another to be allowed to fill posts.

Such tactics were sometimes adopted too in respect of the provision of volunteers at different levels. Every donor country has a different approach and differing policies. While recipient countries paid lip service to the principle that normally volunteers should not be used to fill established posts, departments and ministries not only breached the principle but used the volunteer system to create new posts, by back door methods; frequently, donor countries connived in these practices. Such problems and issues are familiar to the governments concerned and a substantial effort has had to be applied to monitoring the volunteer program — so much so that one often wondered whether it was all worth it — and, I am sure, the sending countries must endure much anxious self-questioning on the point. I know British volunteer organizations have done so on many occasions.

The economic paraphernalia of development and planning

Most island states have planning and statistical units. The former is usually in the Prime Minister's office — to keep it away from Finance or else to enable the Prime Minister to exercise power and influence more effectively. Statistics can be independent or very much part of Finance, in which case ministers tend to pursue their own private units. Planning tends to be related to projects and is not always co-ordinated, even when rolling. The Seychelles, however, long ago very wisely abandoned the project approach and went for integrated sector planning. It is a system to be commended.

Public utilities in the Pacific are extensively vested in statutory boards and authorities — though not always were the latter allowed to undertake their own planning. In the Seychelles statutory authorities were unpopular; as a result the public service was about the same size as in the Solomons. But in all island states difficulty occurs in finding persons with the right private sector experience to sit on boards which too often can be stacked with civil servants. Joint venture operations involving government and the private sector are now becoming very common, but one of the problems is for governments to find the necessary expertise to discharge executive roles in joint ventures. Civil servants are seldom well versed in reading let alone understanding commercial balance sheets. Joint venture projects to provide, for example, public services such as telephones or telecommunications or airport servicing are

becoming common — even on an all up design, construction, and licensed operation basis. Such monopoly arrangements have not always been understood or popular. Here, I would mention that perhaps the time will come when multinational joint ventures should be established on a regional basis.

Mention is made elsewhere in this book of the National Provident Funds. Not only is there a continuing problem in small island states of finding the right persons to sit on such boards but what is more difficult, often, is to find acceptable gilt-edged projects in which the NPF can invest. Few have emulated the Seychelles and turned the NPF into a National Social Security Scheme.

Apart from Nauru, I think, all Pacific island states receive bilateral or multilateral aid of some kind. Many receive funds from the World Bank or the Asian Development Bank. Such institutions, as well as aid donors, exercise a certain amount of monitoring of economies and this is not always welcome, especially if it is the former administering power. It smacks of neo-colonialism. But it is in a country's own interests to operate a tight financial ship and it certainly pays off — especially in respect of the IMF. But in terms of staff, training, supervision, money, and pain, it places a very heavy burden on small island states; and perhaps it is a problem which the IMF could look at, that is to devise new but less expensive and cumbersome techniques.

All modern states in varying degrees employ consultants to advise on particular problems, projects, or policies. But probably island states have a greater need for consultants because of the entrenched limitations on their own available expertise. Besides, island states face many of the more esoteric and intractable problems, though this point can be overemphasized. In so far as states with a British connection are concerned, consultants can usually be obtained through:

- (a) the Commonwealth Secretariat;
- (b) the UN Agencies, including the IMF, ADB, SPEC, SPC, etc.
- (c) the UK, Overseas Development Authority;
- (d) bilateral aid donors;
- (e) Crown Agents;

- (f) universities with interests in the region;
- (g) EEC and its agencies;
- (h) direct negotiation, with or without informal advice.

Much will depend upon the source of funds to pay the consultants, the extent of the state's experience in the field, local advice availability, and above all political considerations. The reality is that there can be few states which have not suffered disappointment in respect of the quality of consultants or advisers — as, often, have sending governments. While each island state will pursue sources in which it has the most confidence, the availability of some process for sifting the relevant merits of competing consultants for a particular task would certainly be of advantage to all island states.

Planning

I suggest that some of the philosophy and jargon of planning may have tended to create — in remote isolated island communities and states — some of its worst own problems of planning, particularly as it relates to the two-way communication between government and people. Although development planning was extensively practised in the fifties and to a lesser extent in the forties — indeed a ten-year plan for postwar development in the wartorn Western Pacific High Commission territories makes remarkable reading today — it was not until the late sixties and early seventies that the cult of development planning was fully launched. This applied not just to under-developed countries or developing or Third World countries or island states. It applied in the corporate field, in industry and agriculture — worldwide. Not only have top management, shareholders and workers generally come to be somewhat dissatisfied with the way in which planning was carried out, but governments became disenchanted, as did their peoples. It was almost the we and they syndrome. Planning tended to become an end in itself for the planners — it encouraged a form of mystique jealously protected — much as in the case of admission to the traditional practices of the graded society of New Hebrides Melanesia. Those who satisfied ritual examination as to jargon, philosophy and cant passed to the next level of the hierarchy. Those who did not went to the wall. But in fairness to the planners, those for whom the plans were prepared — the politicians and their people — did not really always understand the

process, let alone what were to be the end results and why. Planning eventually suffered from a form of bureaucratic isolation.

Why was this the case? First I believe that the planners cultivated and developed their own mystical methods which led to over-expectation in respect of results. And the very stability of the period in the Indian Ocean and South Pacific has placed an unnecessarily dangerous halo around bureaucratic plans, which increasingly became immutable and came to be seen as predictions which soon were to be dislocated by world events, with damaging results. Second, I believe that it was in the sixties and early seventies that we began to see the emergence from the universities in the regions of young indigenous professionals, many imbued with the decolonizing idealism of their academic masters, suffering disenchantment with the past, of which of course they were now the products. Their problem was to communicate with their longer serving colleagues in government and the people in the rural areas. Third, I suggest there was over-dedication to vague doctrinaire goals such as development, growth, or production, or poverty aid, or felt wants or neo-colonialism or just progress — all to be nurtured at grass roots, though not always so happily realized — and sadly an important concept of planning, namely vulnerability to world events, for example the Yom Kippur war or the Vietnam war and its aftermath. And prices for produce were too often ignored. Sadly the planners came to be regarded frequently in a similar way as the priesthoods of the past, a race apart living at the centre — élite members of the despised headquarters or secretariat bureaucracy. From this has flowed a suspicion of those at the centre and the growth of vociferous demands for the delegation of planning to the rural areas. There has also developed a suspicion of individual planners and some of their so-called 'gut beliefs'. There has been an inherited dedication to blaming what has gone wrong on colonialism and a lack of understanding of the pace of change which the decolonization process, started during World War II, had already created. There has been a failure to recognize that good planning calls for a recognition of the fragility of planning assumptions and the need for them to be susceptible to quick alteration, without the planners themselves retreating, hurt, into their corners and adopting a do or die position of refusing to review or alter their plans. Finally, there is a need for politicians, the people and the planners to recognize just how limited plans can be and what they can and cannot do. The mystique should

perhaps be removed from development planning and a return made to reality and a more simplified approach. In particular, planners should perhaps be made more accountable and restricted from retreating into advisory roles. At the same time, aid donors ought perhaps to be more understanding and drop many of their talismanic principles such as poverty aid, growth aid, economic aid, tied aid, soft aid and hard aid, and generally to avoid pushing aid recipients around with such outworn clichés. In particular, the time has come to recognize perhaps that neither all the aid in the world leading to rapid economic development nor prosperity, as such, is necessarily going to preserve an island state from domestic Marxism or political upheaval or even the Muslim revival.

Internal local pressures

It has been the resolute call for devolution of power (especially in regard to planning) from the centre to the rural areas which, in the case of the Solomons, has caused a quite severe strain on the bureaucratic organization of this independent state and brought accusations of over-government and waste of public money. It is a problem which simply did not arise in the Seychelles: local government there was attempted many years ago in the case of La Digue and Praslin but for various reasons, mainly political, collapsed. A form of democratic organization in respect of Victoria, the capital, was tried and found wanting: the Todd Report put an end to the Victoria District Council; and the Seychelles has been governed from the centre ever since.

The Solomons has a quite different history. A form of local government was established before World War II. The very circumstances of the Solomons — its fragmented social organization, multiplicity of languages, divisive geographical circumstances and the history of its people from pre-annexation times to the present, have all combined to call for a very substantial recognition of the rights and powers of the smallest local social unit. Formal local government, which began forty years ago, progressed from village to sub-district to island units, and eventually to groups of such units now called Provincial Councils. By the mid-1970s, the demands of rural areas had resulted in the devolution of substantial powers, including financial and revenue raising powers, to the district level from the central government ministries — not **always**, I should say, with fortunate results. The demands of the rural areas

seemed almost insatiable. The Solomon Islands Independence Order 1978 spelt out at Chapter XII that the Solomon Islands shall be divided into Provinces, that Parliament shall make provision for the government of the Provinces established under the provision and consider the role of traditional chiefs. To this end the government in December 1977 established a broadly-based Special Committee on Provincial Government which was concerned to ensure the participation of all the people in the governance of their affairs and provide, within a framework of national unity, for the decentralization of power on the basis of greater participation and greater efficiency but simply and flexibly. The watchwords were to be devolution down to area and village level, participation in all decision-making and rejection of arbitrariness at the centre. And due regard was to be paid to the role of chiefs at all levels. I understand the report has now been presented to Parliament.

This is a pretty tall order, and the question will surely arise, in due course, whether the country can afford the level of devolution expected and whether in fact it is going to make for better, improved and more effective development. Is it really the road to one country and one people? In other countries, for example New Zealand, fragmentation of local government is giving way to larger regional groupings. Perhaps the reality is that this is the classical clash between town and country — the urban and rural ways of life and where is power to lie, and the kind of bureaucracy to be created. In the Solomons this battle was fought tenaciously many years ago by the late Reverend John F. Goldie, in post-annexation times and up to World War II: was it Munda, Gizo, Methodism and private enterprise in the west, or Tulagi, Honiara, Anglicanism and Levers in the east which were to control the Solomons? Perhaps continuing needling from the rural areas will persuade central government to watch the bureaucratic machine and try to be rather more efficient and effective.

Planning for disaster. I would like to mention one particular aspect of the bureaucratic problem of island states as it concerns rural areas. The geography of islands and inherent climate, their isolation and poor infrastructure makes them, in almost all latitudes, susceptible to disaster both natural and man-made. My own direct experiences of disaster on islands include volcanic eruption, land slide, cyclone, tidal wave, drought and earthquake — together with land, sea and air disasters. It is only in recent years

that island governments have been persuaded to plan coherently for disaster; before, it was usually simply part of a general internal security contingency plan prepared by the police. Similarly, it is only recently that international agencies, such as the South Pacific Commission, SPEC, the United Nations, and the aid agencies of the metropolitan countries turned their attention to effective and positive disaster planning. There is now an International Disaster Planning Institute. The Overseas Development Administration in London has set up its own unit. The International Red Cross has of course been doing it for years but somehow its representatives in remote island communities never found it easy to communicate their expertise to governments in trouble.

Now, because of devolved planning requirements — at regional, sub-regional, national, district, island, area, village and local level generally, all being serviced by a plethora of committees and plans — a danger exists because the communities concerned are threatened with engulfment in their own bureaucracy. How well I remember a young man in a remote area telling me that his 'sub-district local area comprehensive contingency plan had already started rolling but his contingent staff, at the same level as district, needed assurances about salaries and allowances when rolling'. In other parts of the world, disaster relief is operated on a voluntary basis — a message not easily understood in Melanesia.

Island communities, whether supported by plans or not, behave in similar ways in disaster situations — and so do developed countries, often. There is a drive to assess and act without adequate information, advice or thought — often motivated by fear. There is a reluctance to consult, let alone co-ordinate. Blame is freely spread on neighbours and magical forces. There is an immediate urge to make free handouts, especially of food, without regard to what are the real needs and how they should be met. The importance of coming to terms, very early, with the organization of crop rehabilitation is often ignored. Resettlement is pursued for short-term ends without adequate study and thought. Traditional processes of rehabilitation, deeply woven into the ethos, are ignored. And so frequently the bureaucracy of suffering countries is only too ready to pressurize neighbouring countries for handouts — perhaps even needling them for being slow, by pointing out what other neighbours (always 'quick off the mark' — as it is described) have already done. Often it has the characteristics of a

competitive takeover situation. But what is worse is that potential donor countries fail to recognize the dangers inherent in an aid competitive situation.

While conferences, seminars, reports and paper plans, all supported by experts of various kinds, are important in dealing with these problems, populations generally (and especially governments) need to be more exposed to the risks and realities of disaster well before it happens. Each new generation must be helped to come to terms with these possible tragedies. Disaster education might become a part of the curriculum in all island schools. Simulation exercises are needed in rural areas with any kind of disaster risk. Mouldering disaster plans locked in the safes of bureaucrats do not constitute a practical solution any longer. Put another way, in a small island state, oriented to the tourism industry, the value of any hijack counter plan is directly proportionate to the depth in which it is regularly rehearsed, rethought, rewritten and criticized: it must be made the subject of continuing overhaul and imaginative reconstruction in terms of changing realities. Total involvement is called for. In the Seychelles, even the young of the Duke of Edinburgh Award Scheme are involved.

Foreign relations

Whether or not an island state operates a full Ministry of Foreign Affairs, the very smallness of the state means that sometimes it is very difficult for a ministry to keep control of all matters concerned with Foreign Affairs. There is an inevitable tendency for ministers and indeed officials — especially the inveterate travellers — to enter into commitments or make statements often irresponsibly of one kind or another, when abroad, without the blessing of the Minister let alone the Cabinet. At the same time, there is a tendency for resident diplomatic missions — if they exist — or roving ambassadors to deal direct with a ministry on a particular matter. The limited resources and expertise of a young Ministry of Foreign Affairs, and the omission of other ministers to keep it informed, has meant that obtaining and keeping a full picture of relations with any government is not altogether easy; and papers are not always readily circulated. The same is especially true in regard to dealings with international agencies, although this is generally of less significance because direct dealings between an individual ministry and the organization are more often than not of a technical nature, though MFAs have been known to

take an initiative and deal with the latter. In many respects it is all to do with the bureaucracy of style — some call it protocol and others diplomatic procedure: but most of it in fact is simply concerned with common sense, good manners, proper behaviour, sensitivity and not being stuffy. Sadly, too much of the bureaucracy of decolonization has been all about protest.

Because of aid and support considerations bilateral relations, especially with the former administering power, present special problems for island states. Some states have preferred to write the rules and guidelines before or immediately after independence. Others choose a more pragmatic approach and make the rules as they go along. In any case the nature of the relationship in the run up to independence usually has a good deal of bearing on the style followed during the early years of nationhood. An easy informal relationship can avoid too much formalization later: I can think of prime ministers or heads of state who would regard with anathema the suggestion that their visit should be placed in a category of A to E. Although there are sound practical diplomatic reasons, it can be stultifying and frustrating: the foundations for an easy and sensible relationship not only with ministers but also officials, as well as friends outside the government, are usually laid in the run up to independence.

The bureaucracy of relationship between island states and the UN and other international agencies constitutes a vast jungle of study far beyond the scope of this paper. It seems to me, however, that here the main bureaucratic problem for island states is to obtain the information which concerns them quickly and succinctly. The vast ministerial library systems of the developed countries are beyond them — simply for reasons of cost and space. One would hope that in the not too distant future, island states can be aided with a system of computerized information on all subjects which are relevant to their needs and roles. Butterworths, the legal publishers, are preparing to do this in respect of law reports and leading cases. And at the same time perhaps the UN and its agencies might come to terms with the consequences of their own wordiness and restrict the scale and amount of paper which issues from the innumerable long-winded speeches, position papers, resolutions and declarations so confusing to many delegations.

This paper has been prepared on the assumption that certain Western values and norms predominate and will continue to do so; that is to say, that the values recognized as existing between the state and the individual are not necessarily Soviet bloc dominated, nor Eastern, nor Afro-Asian, nor non-aligned, nor even indigenous. The status of the bureaucrat and bureaucracy is of significance; in some island states from immediate post-annexation times, the paternalistic, white-dominated and perhaps effortlessly superior civil service, often anti-mission, often anti-private sector, has exercised great power and influence; but this was increasingly shared with those very few early indigenous civil servants. Many of them are now retired but still do exercise that power. Such a select group, which has grown rapidly at each stage of constitutional advance, and which has jealously preserved not only the best but many of the worst characteristics of its former colonial masters, is a unique bureaucratic club, to the membership of which many of the young still aspire. Again I am reminded of the graded society of the New Hebrides of former times.

In the early 1960s the Colonial Office organized a Conference of Governors, Commissioners, Administrators, etc., together with representatives of the great Whitehall departments to determine the policy which should be followed in respect of emerging island states. I personally have never seen the conclusions which were reached, but someone, one day might find them and take them as a text and follow events through to the present day. I am sure it would prove to be a fascinating study for a Ph.D. The Commonwealth Secretariat and the United Nations have recently turned their attentions to this problem and so now has the Australian National University.

In my time, there have been dozens, indeed hundreds, of studies and reports, good and bad, by eminent government and academic experts, consultants, advisers, etc. Trade unions and manpower issues, O and M problems, establishment issues, waste, demography, procurement, trade, fishing, development and of course training of every varied hue have all received attention. Subsequent reports advised on how to implement the final report.

Perhaps, I suggest, the time has now come for an independent island state to try a different approach — to determine, first, what will be the function and role which the government should fulfil within the country and abroad and, having decided on that (one hopes quickly), retain

cost benefit consultants, perhaps of the kind employed by B.P. or Marks and Spencer or Unilever or even Lonrho, to determine just what is necessary to achieve that role at the lowest cost in money and human terms to the people. A little more motivation and concern for customer satisfaction would do no harm in island states. That which is not necessary can then be either stripped, sold off or annihilated or simply dispensed with. In particular, the study should review the whole structure of government, remove the least relevant of its colonial heritage and create new streamlined effective institutions. I commend the suggestion to you all, remembering that persons such as Sir Derek Raymer of Marks and Spencer are being used by Mrs Margaret Thatcher to improve efficiency in Whitehall. Indeed a little authoritarianism, combined with a sense of social responsibility and achievement — in the interests of the shareholders, who after all are the people — of the kind found in the more efficient board rooms around the world would do no harm in island communities — which could well devote more time and energy to fighting bureaucracy, waste, unnecessary paper work, platitudinous excuses and cost. At the same time, I suggest, it is somewhat fallacious to believe that no change whatsoever can be made without the advice of all the interested parties — i.e. consensus or the Pacific Way. That is not necessarily a democratic system of government for it can become government by pressure groups. The task of a government is to govern.

I suggest that the kind of cost benefit study which I have mentioned might even cover the role which the island states in question might fulfil abroad in the international scene, especially in respect of all those time-consuming politico-geographical ideologies and confrontations. I refer to such dialogues as North/South, East/West, tropical and polar, developed and undeveloped, rich and poor, aligned and non-aligned and perhaps even big and small islands — or even continents and islands or just we and they. Not the least important is for independent island states to think about relations with the PLO, SWAPO or the Muslim revival.

This suggestion relates to any small state, rich or poor, large or small. Rich and small could equate to Nauru, which with the prospect of phosphates running out in a few years might well wish to review and husband its resources before long. The question arises why the decolonizing power or powers did not deal with such a problem well before independence. Cutting away dead wood in practice involves

matters for which an administering power is usually no longer responsible in the run up to independence. Once power begins to pass, that is once a ministerial system with a council of ministers has been launched, the governor or any minister representing the decolonizing power would be reluctant to initiate an innovation with local ministers, other than by way of informal suggestions — in respect of matters for which the administering power is no longer responsible. Otherwise ill-feeling might be created with accusations of interference. If local ministers were prevailed upon to interest themselves in a surgical operation, one would certainly expect that the Cabinet Office would find difficulty in slotting such a complex item into an agenda for the weekly cabinet meeting. Even if this were done, and a fair wind given, the scale of implementation would be such that almost certainly it would not be regarded as having much priority over policy matters concerned with continuing development and the immediate measures related to equipping the country for independence. The latter would take priority. And besides, the entrenched civil service could almost certainly be expected to oppose such a project.

The island states with which I have been concerned have all evolved constitutionally in differing degrees over the past few years as part of Britain's policy of decolonization. The question is often asked whether, by reason of the doctrine of precedence beloved by constitutional lawyers, these small island states have simply inherited and been burdened with a vast collection of expensive institutional bureaucratic claptrap from the decolonizing power. And the cost of all this bureaucracy — in the form of an expanding entrenched civil service — has ever continued to increase, so much so that the personal enrolments section is out of all proportion within the overall budget including aid. Inevitably, the producer is forced to pay; but that solution is limited as Third World economics is discovering. There may be a great deal in all that but it is by no means easy to dispose of the problem overnight. Even Australia and New Zealand suffer the effects of their colonial past. Besides most island states proceeding to independence have been assisted by constitutional lawyers who, themselves, burdened with precedence, are concerned to leave their own marks on 'their' constitution. The decolonizing power on the other hand is concerned that the constitution is acceptable to the colony, politicians and people, to its own parliament, to international opinion, that it sticks, and that power passes peacefully and harmoniously and continues

thereafter. In achieving all this, inevitably at the end of the day one may end up with a good deal of bureaucratic claptrap — and sadly some of it in historical terms was designed for continental colonies like Canada, India and Australia, rather than Kiribati or Tuvalu or Seychelles or even Pitcairn.

Someone once asked me about the mechanics of getting a country to independence: how do you remember everything in the time scale? The short answer is that there is a check list of about eighty points under ten main headings. They are ticked off in a bureaucratic way one by one — relevant or not — it is as simple as that. Only one or two will be so controversial as to require substantial negotiation. It has all been done, over forty times before!

Chapter 19

Law, decision-making and legal services in Pacific island states

C.G. Powles

In the course of ordering their lives over centuries, the peoples of the islands of the Pacific developed a variety of social systems suited to their needs. Techniques of social control were employed in such areas as kinship relations and leadership; in the administration of residential groups, villages and islands; in the management of land, food and other resources; and in the maintenance of order and the settlement of disputes. Some techniques arose out of isolation and scarcity, such as the Tokelau rotation of manpower and the group organization of production (from land and sea) in many parts of the Pacific. Others developed as political systems in which resources were controlled so as to produce a surplus, as in Tonga for the purposes of tribute to chiefs and the stocking of long canoe voyages, and in Fiji and elsewhere for warfare. The political administration of village and island affairs sometimes became formalized and highly complex, as in Samoa where chiefly status was the preoccupation of leadership. In other parts of the Pacific there were effective systems of local organization, with or without chiefs. Then, over the last 200 to 300 years, Western ideas of law swept the islands — in the guise, first, of missionary teaching, commerce and colonial administrations and, now, of Westminster-type governments and new approaches to social and economic planning and control.

Yet change is not necessarily resisted for its own sake. Island peoples are sometimes described as conservative and opposed to reform. Undoubtedly, this is attributable, in the case of chiefly élites, to their defensive position, but it is also true that the familiar processes of indigenous law in the areas outlined above are still widely preferred — not out of a stubborn loyalty or conservatism, but after a realistic appraisal of the alternatives.

Small size and isolation render island societies particularly vulnerable to the influences which reach them. They endeavour to assess the comparative suitability of the 'home-grown' and 'imported' products, but are often unable to control change.

This examination of law in island societies, with particular reference to the implications of small size, will focus on three areas. First, what the law *is* today – its origin, nature and status. Second, the processes of decision-making will be considered from the point of view of the role of law in the island state. Finally, law will be looked at as an instrument serving the needs of the people – is it 'delivering the goods' and what are the particular demands of smaller island states?

Law – origin, nature and status

Under the colonial administrations which the whole of the Pacific has experienced in one form or another, the law of a state or territory had three main sources:

- a. local custom and indigenous law, which were not written or recorded;
- b. ordinances and regulations of the administration (which might or might not include representatives or assemblies chosen by the people), together with the law propounded by the courts of the territory; and
- c. the law of the external power or authority, including statutes and, in the case of British 'common law' countries, the common law and equity of England.

Now that most of the island states of the Pacific are independent, these three sources of law are measured against a constitution which, itself, becomes a principal source of the law of the state. Because constitutions are 'supreme' law and all inconsistent law is void, a proviso is included that all 'existing' law shall continue meantime, thus preserving much of the pre-constitutional law from sources (a) and (b) above, but raising the question of the status of unwritten law under (a). Some constitutions ignore such unwritten law, leaving the matter of statute (such as the Fiji Constitution which leaves all questions of native land to the

existing Native Lands Ordinance 1905 and related Ordinances), but the tendency is for a minor provision, tucked away in the constitution, to recognize the law and to rank it in the hierarchy.¹

The constitutional record of the Pacific is now impressive.

<u>Constitutions</u>			
Tonga	1875	Niue	1974
Western Samoa	1962	Papua New Guinea	1975
Cook Islands	1965	Tuvalu	1976
American Samoa	1967	Solomons	1978
Nauru	1968	Kiribati	1979
Fiji	1970	Micronesia	1979
		(Federated States only)	

The message to the people on self-government and independence is that a legal document is to symbolize their new political status. While praise for a political charter has its point, it obscures the true significance of the distinction between what is in the constitution and statutes (the written law) and what is in the unwritten law of state. This distinction has nothing to do with the relative importance of the law, nor is it an accurate guide as to which law is indigenous and which imported — because both may be written, as will be shown. On the other hand, it may be of the greatest importance to the leaders of a nation that certain crucial areas of law — such as land tenure and local government for example — are not provided for in the constitution. They are usually areas in respect of which constitutional advisers consider that 'custom' should be allowed to take its course without interference. For the leaders, they are areas which must be handled with political sensitivity. As this is the situation in most of the island states, and has implications for political and economic development, some elaboration is called for.

¹In Western Samoa and the Solomons, 'customary law' takes precedence after statute law but over English common law and equity (Western Samoa Constitution 1962, Article III and Solomons Constitution 1978, Article 144 and Schedule 3).

Before the arrival of Western ideas, law in the Pacific was concerned solely with statuses, groups and relationships. A person was considered in terms of *who he was* (that is to say, his descent, group and kinship affiliations, and – if applicable – rank in chiefly terms), rather than in relation to *what he did* (his function and actions). Law was particularistic, as opposed to the impersonal approach of Western law which regards the individual as a cypher and applies 'universally-held' concepts to him. Pacific island societies were 'small-scale' in that the total sphere of social relations was small and members played dual or multiple roles (Benedict 1967:47). (Dimensions of land area or population do not determine sociological scale, but some Pacific societies are small in every sense, and, indeed, the closeness of relationships is accentuated on isolated islands – from which there is no escape.) As a means of social control, law was designed to meet the needs of these close-knit communities, and was effective – particularly in relation to local organization and land tenure.

Island communities were quickly penetrated by some, at least, of the ideas which the West had to offer. Christianity was particularly successful (for example, Samoa and Tonga were almost entirely converted by 1860), and administrators introduced new concepts of authority. Impact throughout the Pacific was uneven, however, until World War II surpassed previous phenomena in their effect, and, more recently, improved communications have brought outlying islands more closely in touch with the twentieth century. But the legal thrust of all these influences was primarily in the area of the maintenance of order and the use of courts to dispose of disputes, and it cannot be assumed that, because churches and courts are now almost traditional in the Pacific islands, Western law has been absorbed. This is far from the case.

Generally speaking, the local political climate was not – and still is not – receptive to foreign notions in the vital areas of government and land tenure. An apparent exception is Tonga where, last century, chiefly authority was so organized as to take into its service the structure of central government. (The ruler established systems of both government and land tenure which have survived, and are regarded today as almost traditional – certainly Tongan.) Nevertheless, as the Pacific was encouraged to develop institutions along Western lines (usually the only basis on which independence could be achieved), traditional political thinking has often been absorbed into the constitutional

framework of the state. 'Adaptations' of the Westminster model are found in Fiji, where the Council of Chiefs has privileged representation in the Senate and entrenched powers in relation to Fijian affairs and native land;² in Tonga, where the Cabinet Ministers are responsible to the Crown instead of to Parliament, itself controlled by chiefs;³ in Western Samoa where only chiefs may vote and be elected to Parliament, and where the Head of State, always likely to be one of the highest chiefs, may apply a temporary (four-day) veto to Cabinet decisions;⁴ and in the Cook Islands where a House of Arikis has advisory functions.⁵ Traditional authority may be effective in other ways, as in Nauru where the Head Chief is Chairman of the powerful Local Government Commission, and in Fiji, where the Native Land Trust Board has considerable authority. In a number of island states, the power of chiefs is a significant factor in daily life, and has important implications for government and law. In other states, of course, there are different sources of power, and in no state does one expect to find that all such sources are defined in the Constitution.

In many parts of the Pacific, existing local organization continued as the basis for local government during the colonial period. Village and district chiefs and councils have operated with various degrees of interference from central government (for example, the Roko and Buli, chiefs, and the Tikina, districts, of Fiji; the Maneaba, island councils of Kiribati; and the Fono, village councils of Samoa). It is a feature of the isolation of islands and villages that local organization has retained much autonomy — and has devised techniques for subverting the authority of the centre, whether that centre be under colonial administration or independent government. One such technique, used successfully in Western Samoa for a century, is for the local council to choose as its Pulenu'u (mayor-cum-government representative) a person possessing sufficient prestige to represent the village but lacking the traditional rank necessary to impose his will on the council. The constitutions and laws of the state usually make no — or little —

²Fiji Constitution 1970, ss. 45, 67 and 68.

³Tonga Constitution 1875 (1967 revision), ss. 51 and 59-61.

⁴Western Samoa Constitution 1962, Articles 44, 45 and 37-40, and Electoral Act 1963, ss. 5 and 16.

⁵Cook Islands Constitution 1965, ss 8 and 9.

provision for local government, and it will be interesting to see what the Solomons does with the constitutional direction to Parliament to make provision for government of the provinces and to 'consider the role of traditional chiefs therein'.⁶ The conferral of statutory powers on traditional authorities has serious pitfalls, the implications of which cannot be canvassed here (see, e.g., Galanter 1972 and Kidder 1978).

Traditional land tenure persists in most parts of the Pacific under differing types of restraint and subject to a variety of imposed dispute-settlement procedures, usually in the form of a land court, commission or committee (for example, Nauru, Fiji, American and Western Samoa, and the Cook Islands, to name some). Here constitutions or statutes have generally protected the traditional status of land, and, again, the land tenure law itself is usually not defined in writing.

Thus, it may be said that the principal concerns of national government, both traditional and Western, have been incorporated in the written law of island states, but that the politically sensitive areas of local government and land tenure have been left to one side and are often ill-defined and not well understood by politicians and lawyers. Now the responsibility of the independent legislatures, legislative intervention in these areas will only be possible under the most determined leadership.

Decision-making

It is a truism that the legal framework of a state does not embrace all the bases and processes of political power. Wealth and chiefly status operate outside the framework and tend to interfere with it. The smaller the state the less opportunity there is for the constitutional office-holders and institutions to perform in the manner intended by the law, and reasonably free from those outside pressures. Shortage of qualified personnel requires dual or multiple office-holding. Politicians, officials and professional and other businessmen are bound by ties of kinship and loyalty. The law relating to these office-holders and institutions is, of course, introduced law, and it may be ineffectual unless it coincides with traditional thinking (as in relation to the Tongan monarchy, which is intended to combine both

⁶Solomons Constitution 1978, Article 114.

traditional and Western modes of behaviour), or unless the very existence of political order depends upon the observance of Western-style impartiality (as in ethnically divided Fiji). The law may also be activated where the breaches become so blatant that they provide grounds for political challenges in court (as in the latest elections in both the Cook Islands and Western Samoa). On the other hand, the traditional rules governing decision-making processes in the context of kinship, and (where appropriate) chiefly rank, have usually remained influential. At times, the conflict must be hard to bear. For example, parliamentary election by secret ballot is incompatible with decision-making by consensus founded on a political system of the Samoan type (Ala'ilima 1966).

It is sometimes suggested that a small homogeneous society has advantages in terms of social cohesion. Certainly, a unified people begins with one clearly understood set of values with which to face the onslaught of Western culture. Pride in nation and race are thus positive attributes. But a rosy view of tropical peace amid plenty is unjustified — and unfair to the leaders and people. Close-knit island communities experience great stress for the very reason that their members are 'face-to-face' and that the kinship and other rules cannot be avoided. Large-scale or multi-cultured societies provide alternatives for those seeking release from pressure, or alternative ways of adapting to Western concepts and change. Also, as has been shown, there is no simple dichotomy of old and new, or island way and Western way. In the late 1970s, the old and the island ways have long since become an amalgam of values and institutions, and people are unhappily aware that they are not sure what they have lost. Here, one returns to a realization that much depends on the political structure. The strength and stability of that structure in many island states lie in the diffusion of power between central government and island or village councils. Contrasts between region and centre absorb tensions which, in the absence of genuine political parties, cannot be channelled in the Westminster manner. There may be other avenues of relief. The Tongan who has not inherited the necessary qualifications for political advancement may nevertheless enjoy a greater degree of personal freedom on the land allocated to him than does the Samoan villager under the watchful eye of his chief.

This book is concerned with development, which means change. The choices facing citizens of island states are difficult ones. To decide to take advantage of new offices and new procedures, or just to play a new role or establish a new relationship, involves altering one's position in relation to the old. It may mean the neglect of existing obligations or the positive breach of long-standing rules the value of which is still apparent. Furthermore, it is becoming increasingly obvious to all concerned that in choosing to adopt the new, one does not thereby avoid the old. The public servant subjected to kinship rules in an island community is not to be envied. However, those citizens who perceive that their advantage lies in the maintenance of existing obligations and who hesitate to take the risks involved in accepting new ones are branded as hopelessly conservative and resistant to change. Perhaps their assessment as to where their best interests lie is realistic. Also, Western law does not have an enviable record, for example, in relation to the control of violence and 'socially undesirable' behaviour, and in such areas as employer-employee relations and the regulation of the economy. In short, further development in the Pacific, whether political, economic or social, needs to be made considerably more attractive.

Two aspects of decision-making seem to cause particular difficulties in the smaller island states. The first is that stage which precedes the decision — the consultative process. Let us take the example of a country which wishes to examine its law in relation to land tenure with the intention of introducing legislation which would make it possible to register group interests to blocks of land, for the purpose of facilitating the use of the land for agriculture or forestry. (This discussion can also apply to Tonga, where only individual interests are at present registerable.) In a metropolitan country, a proposal involving major law reform is accompanied by widespread publicity — using TV, radio, the press and public meetings. On a moral issue such as abortion law reform, churches and pressure groups are active. The government usually sets up a parliamentary committee to hear evidence and report, or if the bill has been introduced, to hear submissions from the public on it. Again, if the issue has local importance, there will be councils before which opinions can be aired. Specialized issues, such as town-planning, liquor or transport, have permanent tribunals which can hear public views. So, if these ideal procedures are followed, no citizen can complain that he has had no opportunity to understand the issue and express an opinion upon

it. (I say 'ideal', because, of course, governments often rush their legislation through but the facilities are there to be used.) Then, when the proposal is put to the vote in parliament, the decision can be said to have been made after consultation with the people.

Such facilities and procedures for consultation are not available in island states. It is not that the people would not be interested, or would not understand — because they are vitally concerned with many issues which come before government, and land is a major one. They would want to know the implications of reform. In the case given, the difficulties of determining group membership, among others, would be weighed against the benefits of registration. But the necessary infrastructure, and the means of involving widespread populations in consultation, are not there. The history of law reform in the Pacific, particularly in relation to the growth of new or adapted institutions, is full of examples of the failure of laws because the people rejected them. Most of the failures were colonial, but now examples come to mind of similar problems under independent governments. It is not surprising, in the circumstances, that the Kiribati Maneaba and the Samoan village Fono wish to understand precisely what central government is doing, and why, before they will co-operate.

The second aspect is related, and has to do with the legitimacy of decisions, and responsibility for them. The actual process of reaching a decision in parliament has been omitted from this discussion, because Pacific states have already adopted Western parliamentary rules of one sort or another and there is no point in suggesting re-consideration in that respect. However, whether or not the state has political parties, it is difficult for the elected government to take the political risks involved in major law reform in sensitive areas. This is because it feels that the electorate will hold it responsible. In states with short experience of parliamentary government, the election by a constituency of a representative to parliament is not seen as conferring on him decision-making power in matters of concern to the constituency. Before effective law reform can take place, particularly in such areas, the means must be found of establishing the legitimacy of the decisions made in parliament, and of spreading responsibility to the electorate.

Consultative techniques are only part of the answer.

Also needed are study groups and a policy-recommending body which acquires expertise in the subject, and presents a report to Cabinet as the basis for legislation.

Small states lack the funds and personnel for such exercises. The infrastructure and facilities for pre-legislative consultation with the public are expensive. Nevertheless, they are part of the 'Westminster package' which helps parliamentary government operate effectively and acceptably – and only a cynic would say that it is good enough for island states to make do without that part of the package.

Legal services

A recent survey (Powles 1977) demonstrated the lack of legal expertise in Pacific states in the administration of justice. It was pointed out that courts, as part of the social system, bring the whole system into disrepute if they are ineffective. A seminar of Pacific court judicial officers and administrators in Nuku'alofa in 1976 concluded that staff and training were the major areas requiring attention, and that fiscal and economic planners paid insufficient attention to the importance of the administration of justice. It is apparent that personnel with legal training are in woefully short supply.⁷ Qualified lawyers returned from overseas universities often serve their governments briefly then move into private practice.

The present discussion of legal needs in relation to law reform and the decision-making processes raises the same question of priorities. The smaller states lack the means to provide those additional personnel required to undertake a law reform project, and a program of systematic reform is often out of the question. The pressing daily demands of government absorb the time and energies of public service lawyers, and local practitioners are seldom available for more than minor *ad hoc* exercises. To the legal needs in relation to the preparation and guiding of the consultative/decision-making process must be added the law drafting itself – time consuming, and requiring expertise.

⁷In 1976, for example, when Australia and New Zealand had 8 and 9 lawyers per 10,000 population respectively, Fiji and Western Samoa had 1.3, Gilberts 0.4 and the Solomons 0.1.

A related handicap in this area is the shortage of copies of the laws of Pacific countries. Constitutions, statutes and regulations are seldom available to the public in a manner conducive to the understanding of the law. There is not only the physical shortage, which is often embarrassing for lawyers, magistrates, court officials, politicians and public servants alike, but such publications can seldom be purchased except from the obscure office of a government department which is not equipped to deal with the public. Of course, the whole question of public education in political and legal matters is another — and vital — topic.

If one adds to the above the need for trained personnel in the remaining areas of legal administration (such as the regulation of companies, patents, and business and land records), prosecutions and legal advice on specialized subjects, it is apparent that many Pacific states are understaffed. Suggestions were made at a meeting in 1978 of small Caribbean states for regional co-operation in the setting up of a pool of legal resources. Perhaps a proposal should be put forward for a regional 'legal services unit' in the Pacific. This would be able to take much pressure off government lawyers in many areas. On the other hand, politically sensitive subjects cannot feasibly be handled by an agency, or even personnel, from outside the state, and governments naturally wish to retain close supervision of law reform in relation to them.

In this paper, law has been seen as embodying indigenous concepts and preserving traditional rules, as an instrument of policy and of change, and as providing services on which society depends. At the same time, it epitomizes the conflict facing the societies to which it belongs.

Accordingly, legal education and training in the law require urgent attention. Law students from the islands who attend metropolitan universities are given a grounding in Western legal philosophy and are taught the usefulness of law. They should have this, but they should *also* be educated in the cultural history and the political and constitutional realities of their own states — so that they may carry out the functions required of lawyers in modern government. All too often, the law graduate returns home wearing professional blinkers. In Australia, New Zealand or the UK he has not been encouraged to see that, in addition to the professionalism which is absolutely essential

for a good lawyer, he has a vital role to play, not only in the effective working of government, but also in ensuring that the laws of his country are the *right* laws for its needs. He thinks mainly in terms of private practice and politics, where sometimes vested interests can destroy his usefulness as a lawyer to his country as a whole.

Pressure is needed on metropolitan universities to provide law courses more suited to island needs (Monash University in Melbourne is working towards a course in the law of Pacific island states). Conversely, training facilities are required whereby people already in the public service, and those taking other courses, can study the essentials of the law relating to their own government and constitution, their legal system (traditional and imported), and the techniques and machinery which are or should be available for decision-making, law reform and governmental processes, generally. In these key areas, the present reliance on overseas legal experts (who usually have little knowledge of local cultural and political history) might be reduced, or avoided — provided that one could be sure that legal education and training for nationals are made appropriate and adequate. Perhaps, in addition to offering technical legal expertise, the regional 'legal services unit' could work with regional institutions such as the University of the South Pacific to provide the additional training referred to.

There is no antidote for change-induced conflict — which man has always endured. The present rate of change in the Pacific, however, is of a new order, combining the **acquisition of political rights with a fresh economic awareness**. Having regard to their earlier isolation, island people today have opportunities, and therefore decisions to **make, on a bewildering scale**. As Mair put it (1969:134):

What is peculiar about the changes of the present day in the non-Western World is simply the breathless speed with which historical circumstances have extended the room for manoeuvre.

Should not this situation oblige governments, with the help of lawyers, to contribute to a better understanding of the choices open to citizens?

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Chapter 20

The politics of small island states

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It is difficult enough to generalize about the geographic, demographic or economic characteristics of the Pacific and Indian Ocean island states and territories. It is virtually impossible to generalize about their politics. For one thing, it is hard to find common features in a group of countries with histories and colonial experiences as diverse as, say, Mauritius, the Comoros Islands, the Federated States of Micronesia, Tonga, the Cook Islands, New Hebrides and French Polynesia. For another — *formal* institutional arrangements excepted — it is difficult to identify (let alone quantify) political parameters or to avoid subjectivity in the analysis of them.¹ This is particularly the case in systems whose political institutions have been transplanted from a foreign culture and which frequently operate in a manner very different from that in which they operated in their native environment.

Difficulties notwithstanding, in the following pages we attempt to identify and assess some general characteristics of politics in the small island states. In doing so, however, we will be principally concerned with the independent or freely self-governing territories, rather than those which are still dominated by colonial powers, and we will draw more heavily on the experiences of the Pacific Ocean states than on those of Indian Ocean states. It

¹Consider, for example, the statement of the Bow Group (1962:18):

In Fiji today, the Fijians are handicapped by a Fijian tribal system in which each village is run on a communal basis under the control of a hereditary chief. Until the social structure is changed, the Fijians will be unable to express themselves through representative government ...

might also be emphasized that we are concerned with *characteristics* of size rather than *problems*. Often, in politics as in other areas, smallness acts as a constraint, limiting the options available to island communities; but at other times smallness confers advantages. Further, what one person sees as a problem another may see as a benefit; in legislative-executive relations, for example, one man's flexibility is another man's nepotism.

With these reservations, we offer some comments on the relationship between smallness and island state politics under four headings: viability and dependency; the politics of small-scale societies; indivisibilities and diseconomies; and external relations.

Viability and dependency

In the late 1950s and early 1960s, at the height of European decolonization, there was frequent reference by administrators, politicians and scholars to 'the problem of the Smaller Territories'.² The problem, for imperial powers divesting themselves of empires, was that some territories appeared to be too small to be able to maintain themselves as *viable* independent states.

'Viability', in this context, was a nebulous concept which encompassed both economic self-sufficiency and political viability. The latter was seen, ideally, to require four preconditions:

- (i) the territory should have sufficient 'qualified' people to provide a parliamentary government and opposition (and preferably have an established, non-ethnically-based, party system);
- (ii) it should have sufficient resources (financial and manpower) to maintain a competent, impartial bureaucracy;
- (iii) it should be of sufficient size to ensure a voice in world affairs; and,
- (iv) it should have sufficient resources to maintain adequate diplomatic representation overseas and to provide for its own defence.

²See, for example, Labour Party (UK) (1957), Blood (1958), Bow Group (1962) and the references cited by Carnell (1961: 106-12).

Needless to say, many territories did not meet these conditions (among British colonies the list included Singapore, Hong Kong and all the West Indian islands). In a number of instances federalism was seen, usually mistakenly, as a means of overcoming the disabilities of size.³

By the end of the 1960s, however, the winds of change had effectively blown away distinctions between viable and non-viable. Attitudes towards the necessary qualifications of legislators had been modified to achieve some accommodation with political realities; aid was widely accepted as an alternative to locally generated revenue, and there had been a reassessment of 'the rules, terms, and ethos of diplomatic practice' (Boyce 1977:2) and of the role of small states in international politics (see below). Between 1960 and 1977 sixty-six 'new' states came into being, many of them small and poor.⁴ And during the past ten years there has been no particularly convincing evidence that, politically, small new states are less stable or less 'well behaved' than larger new states, or indeed than some long-established states, not excluding the US, UK and Australia.

Nevertheless, for most island communities contact with the 'modern' world has brought substantial changes in patterns of economic activity, as well as in social and political organization, and with limited resources and rising expectations (partly the result of recent high levels of provision by colonial governments), many island communities which before European contact were self-sufficient have come to rely heavily on foreign aid and investment. It is arguable how far such dependence impinges on the domestic politics and external relations of recipient states —

³The fundamental assumption behind the popularity of 'the federal solution' was that the aggregation of several 'non-viable' small states would produce a viable large state. Of course this ignored such factors as conflicting nationalisms, non-complementary economies, and inequalities of size among constituent members. For an analysis of the failure of federalism see Springer (1962), Hazelwood (1967), Franck (1968) and May (1970).

⁴See Boyce (1977: Ch. 14 and Appendix A). Boyce notes that at the end of 1976 over half the current membership of the UN was assessed at the minimum rate and that two-thirds of the membership together contributed only 4.5 per cent of the budget.

obviously a great deal depends on the terms upon which aid and investment are accepted — and whether it has more or less impact in a small state (where it is more visible but generally has less significance to the donor) than in a large. However, since the literature of dependency is extensive and well known⁵ and since the strategy of dependent development is discussed in other papers in this volume, we will not discuss it further here.

The politics of small-scale societies

The size of a community affects the quality of the relationships between its members, and in turn its political institutions.

The effects of smallness on social relations have been well described by Benedict (1967:47-8):

Not only are there fewer roles in a small-scale society but because of the smallness of the total social field many roles are played by relatively few individuals The same individuals are brought into contact over and over again in various activities ... decisions and choices of individuals are influenced by their relations in many contexts with other individuals Impersonal standards of efficiency, performance, and integrity are modified by the myriad relationships connecting the individuals concerned.⁶

⁵The most extensive discussion of dependency in the Pacific is Brookfield (1972). See also the discussion of dependency in small countries in Selwyn (1975), especially the papers by Selwyn, Schaffer, Ward and Demas.

⁶He goes on to contrast the *particularism* typical of small-scale societies ('"particularism" refers to the relationship of persons to each other in all their particularity or uniqueness') with the *universalism* characteristic of large-scale societies ('in which the relationship of individuals is based on more or less fixed standards and criteria') and to suggest that relationships in small-scale societies are likely to be particularist, functionally diffuse, affectively charged (strong positive or negative attitudes between persons), extending over a considerable time span, and usually ascriptive (Benedict 1967:48-9). Compare Riggs's distinction between *prismatic* and *diffracted* political systems (Riggs 1966) and Pye's comments on the transitional or non-Western political process (Pye 1962, esp. Ch. 2).

The relationships between individuals in a small-scale society thus tend to be more intense and social transactions to be dominated by personal relationships reflecting, amongst other things, kinship, village ties and ascriptive status. At the same time, the members of a small-scale society tend to be more dependent upon one another's actions than do those of a larger society. Typically, political and economic relations are dominated by series of reciprocal obligations (between equals and between patrons and clients)⁷ but it is common, also, for small-scale societies to employ social pressures to ensure individual conformity to the values and objectives of the group. It is often suggested that smallness of scale promotes social cohesion.⁸ However, there is little evidence for this; indeed as Benedict (1967:49) rightly points out, 'intense factionalism' is a common feature of small communities.

Although very small communities offer unique opportunity for direct democracy, and notwithstanding the ideological emphasis on *consensus* as part of the 'Pacific Way', in fact most of the traditional social structures of the small Pacific communities, and of the Maldives, appear to have been characterized by a fairly high degree of social stratification.⁹ Assisted by long periods of isolation, élites were frequently well entrenched and, especially in Polynesia, upward mobility was severely limited.

The intensity of relationships in the small island communities, and perhaps their stratification, facilitated penetration by European merchants, missionaries and colonial administrators. For the most part, however, traditional structures more or less survived the process of colonization and traditional élites became incorporated into the power

⁷Cf. Boissevain (1974) and Blok (1974) on European small communities, and Schmidt *et al.* (1977).

⁸For example, see Knox and Ward in Benedict (1967:44, 92).

⁹For a recent review of traditional leadership in the Pacific islands see Douglas (1979). The complex relationship between size and democracy (in the particular context of European small states) is analysed in a penetrating study by Dahl and Tufte (1973). Among a number of interesting conclusions, note their comment (p.65), that 'Political participation and sense of effectiveness among citizens do not depend to any significant degree on the size of a country.'

structures imposed by colonial rule, emerging at independence to play a dominant role in the institution left behind by the colonial powers. In several instances, in fact, colonial administrations probably stabilized traditional political structures, reinforcing the power of those seen to be in control at the time of contact. In the cases of Western Samoa and Fiji, to cite two examples, traditional political structures were specifically accommodated within the constitutions handed down by the metropolitan powers.

Thus one can discern in the political structures and styles of the Pacific and Indian Ocean micro states certain of the characteristics typical of small-scale societies and, more particularly, features of the social and political structures which had evolved in those island societies before European contact. Among these two stand out.

The importance of personal relationships. Even from a superficial survey, it is clear that personal relationships, particularly those of kinship and ascriptive status, have an importance in the politics of the island micro states that is unusual even in comparison with the new larger states. One effect of this has been to reinforce a tendency (where constitutions do not in fact ensure it) for traditional élites to exercise a dominant influence in electoral politics. Another has been the non-emergence of formal political party systems in the majority of the Pacific island states and the Maldives. A third effect has been a tendency to develop particularly close relations between legislature and executive — a situation which may make for flexibility but also raise possibilities of nepotism.¹⁰

There is, of course, nothing inherently *bad* in this 'personalization' of politics; however, the importance of ascriptive status, the lack of formal political party systems and the closeness of relations between legislature and executive make for a style of politics very different from

¹⁰Little has been written about legislative-executive relations in Pacific and Indian Ocean island states. However, compare Singham in Benedict (1967) on the Commonwealth Caribbean, and Ballard (1976) on Papua New Guinea, and see Crocombe in Davis *et al.* (1979) on nepotism in the Cook Islands.

that envisaged by essentially Westminster constitutions.¹¹

Functional diffusion. The tendency in small-scale societies for the same individuals to interact in a number of different roles has been noted above. This tendency is particularly in evidence in the small island states where individuals commonly assume multiple roles within government as well as within traditional social structures, churches and other non-indigenous social organizations and, often, in private business. It is reinforced by the frequent shortage of appropriately qualified people.

One can think of numerous qualifications and exceptions to so abstract a model. Four qualifications, however, are particularly important. First, in those political entities created by the aggregation, under colonial rule, of communities between whom contact was minimal, or hostile,¹² the extent of contact between regional components may still be small and social cohesion at a minimum. In such circumstances there is likely to be greater open competition for national resources, including political power, along regional lines; island micro states, indeed, appear to have been especially prone to breakaway movements.¹³ Second, where significant ethnic groups were introduced during the colonial period ethnicity has created divisions within the society and in some important respects has created a political situation closer to that of larger, more complex states. For example, among those states which do have political party

¹¹Compare the comment by Heeger (1974:70) on underdeveloped states generally: 'What appear to be institutions are, at their cores, often little more than coalitions of élites and, at their outer reaches, complex sets of highly personal face-to-face relationships, all momentarily integrated by access to government and its patronage.' Also, see the comments of Western Samoa's head of state, Malietoa Tanumafili II, as reported in *Pacific Islands Monthly*, August 1979, p.31.

¹²The Cook Islands, the former Gilbert and Ellice Islands and Micronesia provide perhaps the best examples, but in varying degrees this describes the situation also in the Solomon Islands, Fiji, New Hebrides and French Polynesia.

¹³Consider, for example, Tuvalu-Kiribati-Banaba, the Maldives-Suvadiva, and the Western Islands (and other movements) in the Solomons. Among non-independent territories, consider the US Trust Territory, New Hebrides and French Polynesia. Consider, also, the history of Caribbean territories.

systems, at least two (Fiji and Mauritius) suffer major ethnic divisions and the party systems reflect those divisions. Third, it should be borne in mind that most of the island micro states are new (mostly very new) states and their political systems are still evolving. The political implications, for example, of a growing number of educated young people from outside the traditional élite and often alienated from village life, remain to be seen, but there is already some evidence (for example in the recent Cook Island elections) that they represent a new style of politics and pose a challenge to existing authority structures. Finally, it must be admitted that the task of generalizing about the politics of the island states will become much more difficult when some of the present territories achieve independence. Most of the now independent or self-governing states achieved independence easily within the framework of British, Australian or New Zealand colonial policy. Those which are eventually freed from French and American colonialism (not to mention the unfortunate case of the New Hebrides condominium) will substantially increase the diversity of political institutions and values — partly because of the institutions they will inherit, partly because they will have had longer to conform to the behavioural norms of their metropolises, and partly because they are likely to develop anti-colonial movements to an extent not experienced in the now independent states.

Indivisibilities and diseconomies

Several papers in this series identify indivisibilities and diseconomies of small scale as sources of problems for small states. In this section we will briefly consider their relevance to certain aspects of public administration¹⁴ and to private employment opportunities.

The manpower constraint. A common argument of the early 1960s was that, while all new states have difficulties in providing sufficient qualified manpower to man the legislature and take over the bureaucracy, those with small populations have particular problems because of the absolutely small number of qualified people available. Their problem is exacerbated by at least three factors. First, owing largely to the absence of economies of scale (and partly,

¹⁴The administrative effects of smallness are considered in greater detail in this volume in the paper by Allan.

perhaps, to the sociology of small-scale societies), government in small states tends to undertake activities which in larger states would normally be undertaken by the private sector.¹⁵ Second, the high minimum cost of training certain types of personnel (for example, doctors) renders it impracticable to produce them locally. Third, there are problems of indivisibility, or 'lumpiness', as discussed below.

Faced with this problem small states may respond in broadly three ways. They may simply opt for a lower standard of provisions. Probably most small states do this to some extent, but there are limits to the extent to which this is feasible or economical. For example, most communities demand a basic minimum of health and education services and most recognize the potential dangers of attempting, say, to negotiate a fishing agreement or a tourism development proposal without expert advice, especially since small states do not have the same capacity as large states to absorb their mistakes. This leaves the small island governments with two principal alternatives: they may retain non-nationals (typically former employees of the metropolitan power) in selected positions until suitable local manpower is available and/or they may employ short-term consultants as necessary. Both these approaches have been extensively discussed in the literature of development administration; we will confine ourselves here to a brief note on consultation as an element of decision-making strategy in small states. The disadvantages of using short-term consultants — lack of local knowledge and empathy, importation of foreign values, expense, absorption (perhaps cannibalization) of local expertise,¹⁶ and so on — are well known, though perhaps frequently exaggerated. But the fact remains that for a state too small, or too 'underdeveloped', to be able to maintain a

¹⁵In Niue, for example, 80 per cent of the workforce is employed by government, with 10 per cent in private sector employment and 10 per cent in agricultural or domestic activity (Niue n.d.).

¹⁶On the last point consider the plaintive comment (Niue n.d.), 'an examination of forestry development may lead to the provision of experts in soil management, forest development, reforestation techniques, sawmilling and marketing. With one sawmilling and logging manager and a gang of 15 men, Niue would clearly have difficulties in coping with a team like this.'

high level of expertise in all areas required of it, carefully selected and wisely managed short-term consultants can provide a valuable and often relatively inexpensive input to decision-making for which there is frequently no satisfactory alternative. The real problem is not so much one of eliminating consultants altogether but of developing techniques for selecting and managing them. Unfortunately what often seems to happen in small states is that individuals or organizations of dubious character or credentials get the ears of local leaders and exercise considerable influence without any sort of accountability.¹⁷

A third means of meeting the problem of shortages of skilled manpower is to have a few people wearing many hats. There may be advantages in such a system, in terms of co-ordination and efficiency; as against these, however, are the possible dangers of producing conflicts of interest and of overloading a few talented people in such a way as to *lower* their overall contribution to the society.

The problem of 'lumpiness' in government spending. The familiar budgetary problem of indivisibility or 'lumpiness' (that certain items of expenditure, especially capital items, occur in large discrete amounts) poses particular problems for small states. For one thing, to a small budget many items are lumpy, so that the community must often choose between excess capacity and going without.¹⁸ More significantly, lumpiness makes it especially difficult to achieve what is seen to be a fair regional allocation of expenditures, especially in a scattered island group.

Problems of economic management. For a fortunate few small island territories resource endowments ensure a comfortable living standard. (The obvious cases are Nauru with its

¹⁷Among recent names to come to mind are Blue Chip Realty Investments in Tuvalu and the Phoenix Foundation in Santo (New Hebrides). The ease with which individuals (especially foreigners) gain access to ministers may itself be a function of smallness.

¹⁸Consider again a Niuean example: 'A minimum level of health services requires at least 3 doctors and preferably 5, although this number could adequately serve a population of 20,000' (Niue n.d.). Niue's population in 1978 was about 3800. More common examples are the areas of foreign affairs and defence.

phosphate and New Caledonia with its nickel.) But for most, a consequence of small size is dependence upon one or two exports, one or two markets, on aid, and on foreign investment. The general issue of dependency has been raised above but it should also be noted that such dependence makes small states particularly vulnerable to natural disasters, commodity price fluctuations and the whims of aid donors and foreign investors. This, in turn, introduces a degree of potential economic instability which renders domestic economic management and foreign economic relations critical to the state's wellbeing and ultimately poses a constant threat to political stability.

The problem of limited opportunities. Reference has been made above to the problems which smallness poses for manpower availability. But equally there are situations in which small islands do not have the capacity to meet the employment aspirations of their people. It is a common feature of small island states that as education levels rise young people leave the village and seek jobs in towns; often their education is urban-oriented and they become alienated from the village. Where employment prospects are limited, young people, and others who drift to towns in search of cash income, form pools of unemployed with the familiar concomitants of crime, drunkenness and rejection of authority.

In some instances emigration is seen as a solution to the frustrated ambitions of individuals. Both the Cook Islands and Niue, whose people are New Zealand citizens, now have more of their nationals in New Zealand than on their islands. (Wallis and Futuna are in a similar position in relation to New Caledonia.)

The political implications of urbanization and emigration have received little attention to date¹⁹ though their potential impacts on domestic politics are considerable — especially for places like Niue, with 61 per cent of its population under 15 (Fisk 1978) and the Maldives with over 60 per cent under 21 (FEER *Asia 1979 Yearbook*).

¹⁹There are, however, some interesting comments on the role of 'emigrés' in the recent politics of the Cook Islands in Davis *et al.* (1979).

External relations

Some immediate questions. Smallness of size (and hence of financial and manpower resources) places some obvious restrictions on the external relations of states. For example, the maintenance of an effective defence force and of extensive overseas diplomatic representation is impracticable,²⁰ the prospects of influencing international events are low (unless a small state controls the supply of a strategic resource, and perhaps even then); even maintaining adequate information about external events may be difficult.

Also, for most of the island states, isolation and strong bilateral relations with former metropolitan powers have, at least initially, inhibited participation in world affairs (though recent dealings with the USSR, China, Libya, Israel and the OPEC group suggest that more broadly based non-aligned policies are emerging). Indeed most of the characteristics which East (1973:557) has listed as being commonly attributed to small states' foreign policy behaviour patterns apply to the Pacific and Indian Ocean micro states, specifically:

- low levels of overall participation in world affairs;
- high levels of activity in intergovernmental organizations;
- a narrow functional and geographic range of concern in foreign policy activities;
- frequent utilization of moral and normative positions on international issues.

One might add another characteristic posited by East (1973: 576) — the importance of economic factors in small state foreign policy.

²⁰Only two Pacific small states — Fiji and Tonga — have defence forces; among the Indian Ocean states only Seychelles has an 'army' — a force of about 150 (D. Scarr pers. comm.), which is presumably intended more for internal than external security. With regard to diplomatic representation no state has more than four or five overseas missions and the Cook Islands and Niue entrust their foreign affairs to New Zealand (and American Samoa to the US).

In the relatively short run there are two factors which seem likely to increase the importance of external relations for the small island states. First, agreement on a 200-mile exclusive economic zone gives some island micro states a valuable, and sought after, asset (over which, however, probably none has the capacity to maintain surveillance). Second, several island states and territories have inherited, or will inherit, strategic bases. At least for those states which have gained independence,²¹ such bases may be an asset.²² But with increasing great power presence in the two oceans, they are an asset which will require skilful management and which may compel participation in international affairs to an extent beyond that compatible with a quiet life. For the Pacific island states, the development of a regional voice, through the South Pacific Forum, is also likely to increase involvement in international affairs, as evidenced by the Forum's recent resolution (directed at France) on decolonization. (Perhaps equally important are questions of relations between states within the region; for example, will the independent Federated States of Micronesia be admitted to the Forum? What if Fiji's relations with Israel prejudice the Forum's approach to OPEC? What will be the shape of future relations between the Forum and the SPC?)

More broadly, it is clear that smallness is not as great a constraint on participation in international relations as it was generally thought to be as recently as the 1960s. Small states are becoming aware of this, and their number is growing. What is now needed is a more systematic theory of micro state diplomacy.

Small island states and the interdependent world. The foreign policy decisions of state leaders are never made in isolation. Every inter-state political decision that country leaders make today affects and is affected by others in increasingly complicated and significant ways. The nature

²¹For dependent territories their value is ambiguous: they are frequently a source of material benefit (not, however, always well distributed); on the other hand they have often been a reason for delaying the grant of independence.

²²An interesting example of the way in which this asset may be exploited is the recent proposal of the Palauans, that they charge a 'rent' for denial of the use of Micronesian territory to third (i.e. non-US) countries; see Herr (1978).

of such relationships is never clear but obviously the way in which inter-state political decisions affect one another is a matter of degree and the extent of this depends on a number of factors. The nature of the diplomatic relationships between Tonga and Fiji is by and large a very cordial one, for historical, cultural and geographical reasons; furthermore, neither country has to account for her foreign or domestic affairs. On the other hand, the impact of the United States' foreign policy decisions on Australia produces a far more significant state of affairs and, at worst, a very serious one for Australia.

How can we account for the differing responses of states to each other over time? Recently the concept of size has received an increasing amount of attention as a factor affecting foreign policy. One manifestation of this is the renewed interest in foreign policy behaviour of small states.²³ Rosenau (1966) in his pre-theory of foreign policy includes size as one of the three 'genotypic' variables assumed to exert a major influence on foreign policy. In addition, many studies have shown that size is an important underlying factor in the international behaviour of nation-states. But before examining the specific factor of size we need to consider the question of the interdependent world as such and the concept of a 'state' in international politics and why countries, *regardless* of size or any other factor, have come to impinge more and more on each other to increasingly more significant effect.

The nature of a 'state' in world politics is fairly straightforward to establish. The territoriality of a state is an international reality that cannot be denied, even if it is recently derived or appears to be tenuous. Physical boundaries are an internationally recognized index of a state's territoriality. And the formal recognition (or lack of it) by the leaders of other states of one governing group — of a single locus of authority within a country — is sufficient evidence for the analyst and for the practitioner of inter-state politics that there is a discrete and describable political entity. Whether the government of that state is an agent of another regime or has serious domestic political problems, or whether the

²³Recent books focusing on small size and foreign policy include Vital (1967, 1971), Schon and Brundland (1971), Rapaport *et al.* (1971), Sveics (1970), Pettman (1976), Boyce (1977: Chs. 1, 14), and articles include East (1973) and Boyce and Herr (1974).

extent of its authority is only recognized by certain areas of the country, or whether it is dependent or directed, advised and even managed by another state is not relevant. The idea of statehood is a pervasive one in the contemporary world and states will be seen where they do not exist except in a superficial descriptive way.²⁴

The nature of the arena in which inter-state politics exists is not so easy to define, though this is largely the result of problems of definition and of the particular approach that analysts choose to adopt. Thus, according to Vital (1967), the nature of international relationships can be broadly described in terms of the 'big' and 'small' states. He attributes the differences among states to their physical geography, their levels of economic and social development, their material and human resources and their geographical relation with other states. Other things being equal, he argues that states which are well endowed with human and material resources have more status, more means to resist any outside intervention, more choices regarding the foreign policies they choose and less of a need to gear such policies to their domestic political ends. On the other hand small states are more vulnerable to external pressures and therefore less prone to resisting incursion. The range of choices within which they can realistically pursue their foreign policy is very limited. This also has an important psychological effect on their ability to deal with the international community. Furthermore, they are always dependent economically on foreign markets and external sources of essential supply and ill-equipped with present-day weapons technology. Choices and options for a small state, according to Vital, are therefore very limited.

There seems to be a problem of definition here. Vital sees the measure of state power as an ability to influence others on the one hand and as the ability to withstand such pressures on the other. Thus a big power will possess both

²⁴ 'in one sense the continued use of the word "state" in the context of developing countries represents a form of conceptual underdevelopment within the social sciences; far from specifically exempting such countries from the tendency conceptually to dissolve the "state" into more functionally specific or limited structures such as civil or military bureaucracies or political parties, the literature that uses the concept does so in the "old-fashioned" sense because it has not yet got around to applying the new terminology' (Nettl 1968:561).

abilities while a small one will not only wield a little influence but largely fail in any attempt to withstand that of the great. Such comparative measure does not, however, coincide in a straightforward way with assessments of size. Vital's unwillingness to attempt any detailed discussion of what 'big' or 'small' might mean misses the central point. Indeed most of the characteristics outlined above would seem to be shared equally by many states both large and small. Nevertheless Vital believes that fundamentally a small state will lead a defensive life in terms of its international behaviour. Like most writers on the effects of size on foreign policy behaviour Vital makes this assertion because of its direct appeal to common sense. But again there is no analytical discussion of why 'common sense' is a reliable guide to such analysis. To take an extreme example, how did North Vietnam manage to resist the might of the big American nation for so long? Was it because the situation was non-customary? Or is there more to it than this? Should we look at other modes of analysis such as the constraints that big states are faced with in the conduct of their foreign policy towards small states?

One area in which we can look for an answer is the context in which international diplomacy takes place and, in particular, how state leaders perceive their role and define their position in the international community.

This question of how countries perceive their role and define their position has become increasingly important in recent years mostly as a result of the growing complexity of world affairs. In the first place, the growing number of new states and transnational entities has helped to increase the manoeuvrability of weaker states. As Hoffman (1968:59) puts it: 'when the skills of persuasion have to be spread over so many years, the uncertainty of the game escalates any one power's ability to shape the milieu by moulding the perceptions consequently decreases'. Second, the growing division of the global system into a number of different spheres of influence has widened the areas of choice for those states that might want to remain committed to neither. 'When force loses some of its prominence, power ... becomes the art of making you see the world the way I see it, of making you behave in accordance with that vision. International politics in the past was often an arena of coercion without persuasion; it is tending to become an arena of persuasion, more or less coercive' (Hoffman 1968:58-9). The criteria for successful inter-state politics must be measured by something more than the question of size.

Can we overlook definitional problems and argue that small countries do indeed take a common defensive posture as Vital suggests? It is obvious we cannot. Indeed one of the more dynamic factors in world politics today is the distinct confidence of state leaders of small countries in their ability to participate as equal members of the international community in any area of global politics. The pronounced increase in the number of new states, many of which are small in size, has obviously played an important role in this. This has called for reassessment of the rules, terms and ethos of diplomatic practice and of the role of small states in the international community (Boyce 1977:2).

In discussing some of the characteristics of interstate politics of the South Pacific countries we need not only to describe their foreign policy behaviour but also to identify some of the characteristics of the global arena and the context within which state leaders in the South Pacific perceive their role, define their position and identify their choices in making their foreign policy decisions.

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Section VIII
Development
Strategies and Aid

Chapter 21

The island of Niue: development or dependence for a very small nation*

E.K. Fisk

The island of Niue faces a very interesting and a very real dilemma, in which the quantity and type of external aid plays a critical part. It is not, however, simply an economic dilemma and it cannot be understood in terms of economic analysis alone. If adequate consideration is not given to certain powerful political and social influences on the situation, there is a danger that policy conclusions about aid could be reached that will be intrinsically destabilizing and possibly even destructive to the society which the aid is intended to help. On the other hand, some United Nations activities have been directed to push the decolonization and independence of Niue, but in doing this those concerned have been concentrating too much on the political aspects of the situation, and giving inadequate or too simplistic attention to the economic and social realities of Niue's position.

In what follows some important features of the unusual Niuean economy are outlined. To this is added a very brief view of some of the political and social factors that have an important influence on the dilemma of Niuean survival as a national entity. Finally an attempt is made to outline the main dimensions of this dilemma in the context of the total social situation, and to show the critical effect of the quantity and type of external aid on the balance of population size and structure in Niue itself.

General background

Niue is a small, isolated island nation situated about 500 km east of Tongatapu and 600 km SSE of Samoa. The island is a raised coral atoll of about 400 sq. km, with the centre of the island, which was originally the lagoon,

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substantially lower than the outer rim which rises steeply from the sea to a height of just over 60 m. Soil is sparse, though fertile, and the island is well covered with vegetation; while most of the surface has been used for subsistence agriculture on the long fallow system and ranges from degraded fern-covered areas to well-grown secondary forest, there remains a substantial area (roughly 5,000 hectares) of evergreen rain forest. The population in 1977 was just under 4,000, almost all Polynesians.

Politically Niue is a self-governing country under the protection of New Zealand, and its people are New Zealand citizens. It is governed by an elected House of Assembly comprising 14 members, who in turn elect from among themselves a Cabinet of four including a Premier. There has been considerable migration to New Zealand in recent years and it is understood that approximately 6,000 Niueans are now established residents of New Zealand. Migration from Niue reached particularly high levels in the years 1970 to 1974.

From the economic point of view it is a very small economy with an ample subsistence base for its indigenous population, but with very little in the way of surplus resources for trade and exchange with the outside world. Considering this, its people in 1977 had an extraordinarily high standard of income and living, in which the high self-subsistent base was supplemented by very generous aid allocations, which on a per caput basis must be nearly the highest in the world. There is, in addition to the aid flow, a further inward flow of remittances from wage-earners in New Zealand, but as Niue uses New Zealand currency this is difficult to quantify or trace.

The economy

Broadly speaking Niue has an affluent subsistence economy with a small sector of commercial export agriculture and a large public sector. The public sector comprises (a) a capital and development segment, involving public works plus a substantial input into agricultural and commercial development, and (b) a services and maintenance segment involving annually recurrent expenditures. Both segments are heavily subsidized by New Zealand aid in the form of grants. Grant aid in 1976-77 was authorized up to \$3,107,000 or \$780 per head of population. With the exception of a little regional aid, amounting to less than 1 per cent of the total in 1976, virtually all this assistance

came from the New Zealand government. Additional aid from other sources, including Australia, was expected to commence in 1977 and 1978; of this the only large item appears to be a five-year 'Indicative Planning Figure' of \$1,000,000 (US) from the UNDP. Only \$150,000 was made available for 1977, of which the larger part was to be used in support of agricultural training and development.

During the period 1969 to 1974 migration to New Zealand was heavy, and despite an excess of 729 births over deaths in the six-year period, the total population fell from 5290 at the end of 1968 to 4,009 at the end of 1974, a total loss of 2010 during the period. During the last few years the loss through migration has declined sharply and since 1974 the resident population has been almost stabilized at close to 4,000. Another striking demographic feature has been the remarkable decline in the number of births, from 209 in 1969 to 98 in 1975, and the very skewed age structure of the population, with 61 per cent under the age of 15 years (30 Sept. 1976 estimate).

The standard of social infrastructure in Niue is remarkably high. Roads circle the whole island, supplemented by several trans-island roads and many motorable tracks. Most roads are formed from crushed coral: both construction and maintenance appear to have been greatly facilitated by the porosity of the soil and coral base. On an island where there are no streams or swamps and no surface water of any kind, drainage problems are greatly reduced.

Every village, and virtually every house, is now accessible by all-weather road. Government buildings, schools, churches, airport facilities and the hospital appear of a remarkably high standard for a community of this size. Housing, by Pacific island standards, is very good, all original indigenous-style housing having been replaced with the help of New Zealand aid assistance since the 1959 and 1960 hurricanes. There are several standard designs, the majority built with concrete walls and asbestos roofs, with three, four or five rooms. A feature that immediately strikes a visitor is the number of excellent house structures now empty as a result of emigration. One large New Zealand aid project has been the reticulation of electric light and power. This is now almost complete and will soon cover the whole island including all fourteen villages. Electrification has led to a rapid increase in electric appliances such as stoves, refrigerators and washing

machines. Villages have water supplies for domestic use comprising very large rainfed tanks or deep bores.

Another indicator of the strangely affluent economic pattern is the number of cars, motor cycles and motor scooters in evidence. Only a few pedal bicycles were seen in this almost hill-less island, but 1976 registration of motor vehicles included 205 cars, 497 motor cycles, 37 trucks, 1 bus and 49 tractors — a total of 789. By coincidence the 1971 census recorded the number of private dwellings as 789 also, and by 1976 a noticeable number of these buildings were empty.

On the other hand practically every Niuean family is self-sufficient in the basic staple foods, including taro, vegetables and fresh fish. This applies almost as much to Cabinet ministers and senior government officials as it does to casual labourers and full-time farmers. There can be few countries in the world today where virtually the whole indigenous population, using family labour on their own subsistence gardens, produces so large a part of their total family food requirements. Change, with more widely spread and better paid wage employment, has commenced to affect this subsistence system, but as yet only to a modest extent. The Burns Philp manager told me that demand for bread from his bakery (the only one on the island) had increased to 3,000 loaves a week. Meat from the government slaughter house was finding a ready market, though quantities available are small. Apart from that, some tinned and frozen foods, sweets, biscuits and a few luxury items are the only food-stuffs widely purchased for money. To enable this level of self-subsistent agriculture to be sustained, government offices and other regular works cease at 2.30 p.m. daily in the summer and at 3 p.m. in winter, so that all afternoons and the whole of Saturdays are free for gardening. As nearly all wage employment in Niue originates with government, this determines the work pattern for the Niuean workforce as a whole.

There is no official market place for local garden produce in Niue, and I understand that the Niue government has decided against constructing one at present on the grounds that there is no serious need for it as yet. Some vegetables are sold by the roadside near the main government offices early on Friday mornings, but this activity had ceased by the time I arrived on Friday afternoon and I left before the next one. Consequently I was unable to observe

it myself and had to rely on secondhand accounts. It seems that the quantities exchanged in this manner are quite modest and that few, if any, Niuean families rely upon it as a significant source of staple foods. On the contrary, many Niueans expressed to me the idea that production of their own food, and particularly their own taro and fish, was a source of considerable satisfaction to them. Perhaps this is one of the components of Niuean culture that has not yet been eroded by the influx of exotic values from the outside world. On the other hand some Niuean public servants, with whom I had a group discussion of the motivation behind emigration to New Zealand, expressed the view that the rewards for work were attractive in New Zealand because in one job the worker got enough to feed his family as well as to meet all the other expenses, whilst in Niue they had to go out and work on their food gardens after finishing their wage employment.

Apart from subsistence gardening and government wage employment, there is a small but important private commercial sector of the economy. This is clearly divided into two distinct segments. First there is that described in Niue statistics as 'Private Firm'. This is a small segment comprising mainly retail and wholesale traders, together with those employees of foreign firms and contractors who may be in Niue on business. The segment appears to be quite small, engaging only 110 out of an actively engaged workforce of 1,422 in 1971. No more recent figures appear to be available. Burns Philp and the other main importers and traders, together with their agency trade stores in the villages, would account for most of these. Many other enterprises, such as honey production, the passionfruit and lime processing factory, the meat slaughter house and even the quite excellent Niue Hotel, are government enterprises of one form or another.

The other segment of the private sector is commercial agriculture, in which I include the basketware industry. This segment is for all practical purposes wholly export-oriented. Production export figures provided to me by the Secretary to Government suggest that exports for 1976 in \$NZ were approximately:

Copra 114 tonnes	\$23,457
Passionfruit	66,885
Lime juice 90 tonnes	21,910
Lime oil 0.2 tonnes	3,607
Honey 30 tonnes	9,303
Plaited ware (by air)	25,000
Fresh limes (by air)	<u>1,372</u>
	<u>\$151,534</u>

Note: The first five items were based on Treasurer's figures for items exported by sea. The final two were exported by air and taken from Secretary to Government estimates.

The Treasurer presented some projections for exports by sea (i.e. excluding fresh limes and basketware) forward to 1983. His figures at 1976 prices envisage a dramatic increase to the following:

<u>Projected exports by sea, 1983 (at 1976 prices)</u>	
Copra 300 tonnes	\$66,000
Passionfruit 1691 tonnes	1,691,000
Lime juice 480 tonnes	180,555
Lime oil 0.8 tonnes	13,764
Honey 51 tonnes	15,555
Pawpaw products 120 tonnes	52,800
	<u>\$2,019,674</u>

These projections, by any standards, suggest a quite astonishing rate of development, and on the basis of the necessarily superficial observation possible in so short a visit, I find myself unable to accept them without some reservations. Even if problems of technology and marketing are solved, and land ownership does not present too great difficulties, a very much increased supply of high quality labour would appear necessary to sustain commercial agriculture at this level, and the structural adjustments necessary to provide this in so small a labour pool (604 males aged between 15 and 60 in September 1976) appear daunting.

The information available to me is insufficient to work out the details of the structural adjustment problem at this stage. However, some of the relevant dimensions can be indicated. First, the substantial increase in full-time agricultural employment necessary to sustain such production is not apparently available from a pool of unemployed persons in Niue itself. Although wage employment in government and commerce is strictly limited, it does apparently absorb nearly all the available labour force, at any rate for males. During my visit I had a number of discussions with a small group of New Zealand building contractors who were preparing to build the new House of Assembly complex (financed by New Zealand capital aid) for the Niue government. One of the problems that was worrying them was the shortage of local labour, and they had been told they would probably have to import much of the labour required.

Reduction of aid would of course eventually release labour from government employment, but this could only be done at the cost of reducing development projects or of reducing the level of government services. The former, except in agriculture and related industries, in fact appear to involve relatively small local labour inputs beyond the level necessary for their continued use and maintenance – a beneficent feature of the generally well-planned New Zealand capital aid. The electricity reticulation scheme is a good example, in which the plant and equipment were almost entirely imported as were the high-cost skills for installation, having little direct effect on the internal economy. The local salary and wage input for installation of this large addition to the infrastructure would have been to a considerable extent absorbed into the operation and maintenance of the installed facility whilst the temporary imported skilled labour has been re-exported.

Further small reductions could be made if the rate of aid-financed additions to the infrastructure is substantially reduced (which seems unlikely in the immediate future), but if large reductions in local staff are made there is a danger not only that the newly installed infrastructure would deteriorate and the benefits of the aid investment would be largely wasted, but also that the standard of services would decline and the general standard of living in Niue would fall. One effect of this would be to make any given income in Niue less attractive, and the net result would be not to increase the incentive to engage in full-time commercial agriculture, but rather to increase the incentive to emigrate to New Zealand.

Another dimension in the structural adjustment is the relative security and status attached to wage employment *vis-à-vis* full-time commercial agriculture. The number of full-time independent commercial growers in Niue is at present exceedingly small. These few are mostly doing very well at present, and although heavily dependent on the services of government – especially through the excellent Department of Agriculture and the Niue Development Board – it is possible for a diligent grower to earn a cash income comparable with that of a senior government employee, provided:

- (a) he has access to sufficient good land;
- (b) he can develop the special skills required (e.g. for successful pollination of the passionfruit flower (by hand));

- (c) he works continuously and hard;
- (d) he receives the full support of the agricultural extension services, which undertake many of the operations for him;
- (e) collection and processing of his crop by government is prompt and timely; and
- (f) prices remain high.

Failure in fulfilment of any of these requirements will seriously, and in some cases permanently, damage his income prospects. With the large expansion planned it seems inevitable either that the quality and quantity of services given to individual growers must decline, or that the staff of the extension and other services must increase, or (more probably) both. Prices also, which are at present influenced by an excess of demand over supply in New Zealand, are likely to be influenced not only by the substantial planned increase in Niue production (more than 400 per cent for lime juice and about 2500 per cent for passionfruit) but also by likely increases in supply from other countries seeking to get into the market.

An alternative strategy that has received consideration is for large-scale production of the main export crops to be undertaken directly by the government. In the Niue situation this appears to have a number of advantages, if it can be made to work effectively. However, acquisition or lease by government of the land suitable for such large-scale operations apparently presents problems that take considerable time to solve – sufficient at least to cast some doubt on the practicability of the timing on which the Treasurer's projections depend.

There are of course other problems associated with using aid to develop economic independence. It is a truism that aid is easy to start but difficult to stop. These difficulties are not simply solved by building up exports. Quite apart from questions of capital inflow and balance of payments, Niue is faced with the problem of replacement of its pure budgetary support aid by internal sources of revenue. This involves syphoning off an additional \$1,800,000, or about \$450 per head of population, to maintain government services and wage payments at present levels. Unless total earnings increase very substantially this would mean a substantial *decrease* in individual levels of personal income and consumption, even if export production were to rise

sufficiently to offset the cessation of budgetary support aid. From the distant and doctrinaire view of some international committees this may seem a small matter compared with the delights of complete independence, but very few Niuean families of six persons would have cash incomes approaching six times \$450, and such independence is clearly not readily accessible. Even if exports do rise from \$151,000 to \$2,000,000 in seven years, and even if income and consumption expectations do not increase above present levels, independence of large-scale aid support is a long way off.

But why is this so? And how has it come about? In 1970 the aid to Niue was about one-third of what it was in 1976, and a few years before that it was substantially less. What has been the effect of this greatly increased aid on the movement towards economic and political independence? This cannot be understood simply in economic terms.

Let me illustrate this with a brief review of some of the political, social and religious aspects that impinge upon the problem. It must be emphasized that this *is* only illustrative, and that the empirical base for much of the picture drawn, and for the social aspects in particular, is as yet incomplete.

Political factors

The political parameters of Niuean life are reasonably clear in outline, and have a very strong bearing on the nature of the dilemma with which Niue and its people **now** face.

The island of Niue itself has known little in the way of foreign exploitation, owing presumably to its isolation, small size and its low endowment with economic resources suitable for such exploitation. At the turn of the century it sought, and eventually obtained, British protection. From 1901 it was administered by New Zealand until 1974 when it was granted self-government 'in free association with New Zealand'. This progression to self-government was not the result of pressure from within Niue itself, but was almost entirely the result of pressure from the United Nations on New Zealand.¹

¹An excellent account of the political developments and status of Niue is available in Terry M. Chapman, *The Decolonisation of Niue*, Victoria University Press, Wellington, 1976.

The form of political organization adopted under self-government is apparently a satisfactory one. There is a House of Assembly to which each of the fourteen villages of Niue elects one member. The House elects a Premier, who administers the government with a Cabinet of four including himself. The Cabinet directs a public service, now almost completely Niuean, which employs most of the adult males, and many females, of the Niuean population, and provides a very excellent level of services to the community. However, perhaps more important even than this in Niuean political affairs, the New Zealand government has granted New Zealand citizenship to the people of Niue, which gives them right of access to the New Zealand mainland, and once there, to employment, housing, social benefits, education, health services and all other privileges accruing to New Zealand citizens. This means that any Niuean who can raise the relatively modest cost of fares to New Zealand has access, for himself and his family, to the high material level of living of one of the rich countries of the world. This is a very real option which many Niueans have exercised in recent decades, and there are now substantially more Niueans settled in New Zealand than remain in Niue itself.

Social factors

The social facts of Niuean society are mostly unknown to me. There are, however, a few characteristics described by Niuean informants, or mentioned in the available literature, that appear suggestive in the present context. First, it seems quite clear that Niuean society of the 1970s was very different from that of seventy or more years ago. These changes have been greatly influenced by the impact of New Zealand culture on the one hand, and by the Christian Church on the other. English is the language of education and is widely used. The traditional Polynesian ceremonial drink, kava, is no longer used. There is in fact little obvious indication on the surface to suggest to the visitor that he is in an almost purely Polynesian society.

Second, this changed Polynesian society, with strong church and New Zealand influences absorbed into it, nevertheless is still a cohesive unit with tight ties of kinship, village, association, and land rights binding its individual members. The production of taro, the giving of feasts, inter-family prestations and ceremonial associations all play an important part in social relationships and in the relative status of individuals within the society. This

social structure is clearly a matter of emotional as well as practical significance in the lives of Niueans and is something they will be reluctant to abandon. As such, it must have had a strong stabilizing influence when Niueans have been faced with material inducements to take advantage of opportunities available outside the compass of their own society.

However, strong though these ties to the island are, the social components in these ties have in recent decades become very much less important as disincentives to migration to New Zealand. This is, of course, a result of the great increase in the size of the Niuean population in New Zealand, and of the continuing cohesion of that population within the larger society.

Church

Finally the church is an institution in Niuean life that exerts a major influence on the structure and activities of the society. On Sunday, for example, it appears that the whole population goes to church, and the restriction on work on the sabbath appears to be observed very strictly. I have no information on the interaction of church and the Niuean community in New Zealand, but if, as one would expect, it remains strong this would be (as was the case with Torres Strait Islanders migrating to North Queensland towns) another favourable factor facilitating Niuean migration to New Zealand.

The aid-dependency dilemma

The time has now come to look back at the dilemma mentioned at the start of this paper, and to examine the relationships between aid and development towards independence on the one hand, and between aid and development of permanent dependence on the other.

If the economic development of Niue is to lead to real independence, it will be necessary for Niue to develop exports, visible and invisible, sufficient to balance the cost of the goods and services it needs to import from the outside world. This balance can be achieved by increasing exports, or decreasing imports, or by a combination of both. In the development stage, whilst this balance is being achieved, it is of course perfectly proper to envisage quite a large disparity between imports and exports, whilst the international viability of the economy is being built up, and the

shortfall of foreign exchange made up by aid payments. The basic idea underlying international aid of this kind has been to enable a transfer of capital and technology to the developing country so that its productivity may be enhanced. Where this is done, there are very often real prospects of raising such productivity to the point where it can support an acceptable standard of living in the country concerned, at least in theory.

An almost universal complication, upsetting this otherwise straightforward proposition, is that this 'acceptable standard of living' is by no means a stable concept. The idea that 'more is better' is by no means confined to the evil minds of old-fashioned economists. Mistaken or not, it is an idea that is widely shared by very many people in practically all countries. In most countries, from Bangladesh to the USA, the average man's definition of an acceptable level of income would mostly specify a level higher than that which he presently enjoys. Moreover, once the minimum basic necessities have been met, the aspirations underlying such definitions will tend to involve a larger increment in absolute terms where existing incomes are high.

This has always presented problems for aid policy. The faster the rate of development which the aid aims to produce, and the higher the level of aid in relation to the domestic product of the country concerned, the greater the problems so caused. This is because aid itself has the effect of increasing the level of economic activity. This in turn raises the level of incomes within that country, and in a very short time this further raises the aspirations of the people of that country.

One way of controlling, or at least dampening this effect, is to confine aid to the foreign exchange component in any development program. This has not been done in Niue for good reasons, but the effect has been that aid has produced a rapid increase in the level of living in Niue which, it may well be, is beyond the capacity of the internal resources of Niue to sustain without the continuation of substantial aid in the foreseeable future.

If this is so, it is not in this case simply a result of excessive or badly planned aid. Rather it is the almost inevitable result of the political act by which New Zealand gave Niueans New Zealand citizenship. This, together with the isolation, small size, and lack of natural resources,

which place Niue at such a comparative disadvantage in world trade, determines the alternatives. In the absence of aid, the option for the individual Niuean would have been either a life of primitive affluence in his own society, on his own land, but lacking many of the more sophisticated material goods and services produced by the outside world, or on the other hand emigration to New Zealand.

If the choice were a simply economic one, judged only in terms of incomes received, this choice would be fairly easy to analyse. Provided the cost of fares to New Zealand could be found, one would expect emigration to take place rapidly until either Niue became depopulated or the levels of incomes available in Niue and New Zealand became comparable. However, the problem is not solely one of incomes or economics, and when migration from Niue to New Zealand first began to be politically and administratively simple, the ties of Niueans to their village, land, language, island and kin must have been very binding in the face of a prospect of life amongst a strange race, with a strange culture, a strange language, and out of reach of all the things that made their society comfortable and secure. Under these circumstances one would not have expected migration to be very great, even when the income differentials were relatively large. However, migration did take place, and the attraction of city facilities, together with the income differentials, did overcome the social ties for a considerable number of Niueans. Moreover, although aid has very substantially improved living conditions and incomes on Niue, its effect has been insufficient to swing the balance of this choice against migration, except only in one or two years in the last decade. The reason for this has not been simply rising incomes in New Zealand, for indeed unemployment in New Zealand may have at least temporarily reversed that trend, whilst rapidly increasing aid payments have tended to keep employment and incomes rising in Niue. The social factors, however, have continued to change in a manner tending to reduce the barriers to migration. Not only are there now considerably more Niueans in New Zealand than in Niue itself, but 25 per cent of the people that lived in Niue in 1969 are now living in New Zealand. This means not only that most Niueans have close relatives and acquaintances living in New Zealand, but also that they have noticeably fewer of them at home, and many of the missing are still remembered as very recent neighbours. As one acute observer put it:

And with the departure of up to half of some of the population of the back villages a great psychological

pressure builds up on those who stay behind, as they watch the church empty, the social ceremonies become less frequent, the neighbours depart, and the garden plots fall into disrepair (Brian Pollard, University of Auckland, 1975, mimeo.).

Another observer, J.M. Bazinet,² quoted by Pollard, said that the young Niuean leaving school, if he had a government job to go to, went to it, but those who did not have such a job emigrated. Whilst this does not appear to have been entirely true over the last few years, it must have been very nearly so. The number of full-time farmers is still extremely small, and it appears there is virtually no pool of unemployed adults.

If these social trends continue, then it may be that the economic incentives necessary to induce Niueans to remain in Niue as commercial farmers may have to increase year by year, even if the income possibilities in New Zealand remain constant. Much the same thing has happened with the Torres Strait Islander population in Australia.³

In many respects Niue is far better placed to survive as a viable social unit than the home islands of Torres Strait. Niue has a high level of economic and social infrastructure that cannot possibly be provided on those small and scattered islands, and it has an agricultural potential which the latter cannot match. For the Niueans in their home land many of the simpler refinements of urban life are now accessible: they can now have electric stoves, washing machines, refrigerators in their homes, roads and motor vehicles now bring every household on Niue within half an hour of the main town centre. This, with good housing, a pleasant climate, and a means of earning cash incomes, goes a long way towards making Niue appear a paradise compared with the situation of the vast majority of mankind.

However, in terms of the purely materialistic attractions accessible in the larger cities of New Zealand, the

²*Survey on Youth in Niue*, South Pacific Commission, Noumea, 1970.

³See E.K. Fisk, *Policy Options in Torres Strait*, vol. VI of the series *The Torres Strait Islanders*, Department of Economics, Research School of Pacific Studies, Australian National University, Canberra, 1975.

supermarkets, the mass sports and entertainments, the regular public transport, the television, the numerous public houses and bars, the temptations of the hire purchase system, and New Zealand public housing provisions, Niue is still, and must always be, lacking in many respects. The facilities of a city of half a million people can never be reproduced on an island with 4,000 people, even if they become as rich as the Nauruans.

Under these circumstances, the determination of the quantity and type of aid given to Niue can be quite critical. Making the (admittedly over-simple) assumption that aid can be divided into infrastructure aid that does not affect internal cash incomes directly on the one hand, and budget aid, which does, on the other, then one could suggest two propositions that should apply at least to a considerable extent:

- (a) Infrastructure aid can be allowed without limit, provided the recurrent labour and other costs of maintenance are not thereby increased. Where such increases *are* involved, infrastructure aid can only be considered acceptable in the light of longer term projections of labour and finance needs for the Niue economy as a whole.
- (b) Budget aid provides the most direct means of determining both the level of government services to the community (including development services such as agricultural extension) and, even more important, the level of incomes and local employment. If budget aid is too low, emigration will accelerate and the depopulation of Niue will continue. If budget aid is too high, living standards and incomes on Niue will rise more than necessary to hold its people, making the possibility of eventually being able to do without aid more difficult and remote. High budget aid might also induce some re-migration from New Zealand, thereby easing the labour constraints on some development projects, though one would expect this to be costly compared with the slower process of absorbing most local school leavers.

Judgments about the types and level of aid necessary for the formation of various policies would be very much easier to make if one had available a detailed national income or a fairly comprehensive set of social accounts for

Niue. A start was made by White in 1963,⁴ and the statistics available from the Niue government are very good and provide a useful start. However, more detail is required in some areas, particularly in the field of self-subsistent agriculture and in labour and income statistics *including* the non-monetary sector. This would make a very suitable and very useful post-graduate research topic if a suitable researcher and suitable supervisor can be found.

One factor that could greatly affect the economic status of Niue has been omitted from the above discussion. That is the possibility of commercial deposits of uranium being discovered on the island. It is understood that one geologist has advised that the prospects of such deposits being proved are good, but that others disagree. It also appears that there may be some problems affecting the relatively fragile Niue environment, particularly as regards its water reserves, and that some other objections might be raised. Depending on the size and richness of such deposits, this could obviously modify the economic picture for Niue, but until the deposits are proven commercially viable, the magnitude of that effect, if any, cannot be assessed.

Finally let me emphasize that, just as the causes of Niue's dilemma are not confined to the field of economics, neither are the remedies. Political changes could obviously be introduced that could accelerate emigration. Less easy to see, but conceivable, are political changes that could reverse this trend, by making life for Niueans in New Zealand less attractive, and that in Niue more. Social change, quite clearly, can have great influence on the motivation for migration. In particular, policies that tend to emphasize and strengthen Niuean indigenous values, such as extending the teaching of Niuean language in schools, encouraging the recording and distribution of Niuean histories, myths, traditions and music, and possibly (if this is not already being done) recording and codifying Niuean custom and law.

The potential of this latter field for policy should not be underestimated, for at the base of the Niuean dilemma is the question of values. As one Niuean put it to me, 'For a long time now things Niuean have been looked down on and things foreign exalted'. The idea that 'more is better',

⁴R.C. White, *Economic Survey of Niue Island*, South Pacific Commission, Noumea, 1964.

particularly with regard to the goods, services and relationships of modern city life, has not been sufficiently questioned in relation to what Niue has to offer. If the leaders of Niue wish to discourage emigration and the depopulation of their home, let them give deep consideration to why, and call openly into question the assumptions and values that motivate those who leave. Mahatma Ghandi did this in an India that was desperately poor compared with Niue, and one of my favourite Ghandi quotes is the following:

After years and years of experience of modern civilization, I have learnt one lesson from it and that is that we must shun it at all costs.

In Niue, where so many of the less questionable benefits of modern civilization are already available, a reconsideration of the relative worth of big city life as compared with the values inherent in the Niuean way of life would not demand a heroic renunciation that Ghandi had to offer his own people. A Niuean Ghandi would have a relatively much easier task, and the advantages of an affluent self-subsistent agriculture, to which has been added so much from the outside world, should not be so difficult to sell. At least it would be worth a try, and Niuean leaders that succeeded would have gone a long way to solving the Niuean dilemma, and towards reducing, or at least limiting, their ultimate dependence on aid.

Chapter 22

A Commonwealth program of action to assist island developing and other specially disadvantaged countries

Commonwealth Secretariat

At their meeting in Lusaka early in August 1979, Commonwealth Heads of Government approved a special Commonwealth program of action designed specifically to assist the smallest member countries of the Commonwealth. A summary of the measures recommended for action by larger Commonwealth countries and by the Secretariat is given at the end of this paper. The decision at Lusaka was the culmination of a process of consultation which had taken more than two years to evolve and which sprang from a very real concern for the economic and political vulnerability of the steadily increasing number of small member countries. As the era of decolonization draws to a close, the average size of Commonwealth countries has declined quite dramatically. Today there are twenty member countries with populations of fewer than a million. The number of very small members is, furthermore, likely to increase substantially in the near future as many of the remaining dependencies become independent.

Background

In 1977 Commonwealth Finance Ministers examined the problems that small island economies face in mobilizing external financial assistance and concluded that special measures should be adopted by the international community to assist such countries. In Sydney in February 1978, Heads of Government of the Asia-Pacific region considered a more general agenda item on the special problems of small states using an excellent paper prepared by SPEC as a basis for discussion. They asked the Secretary-General to seek wider Commonwealth support for specific programs of assistance on a Commonwealth-wide basis to help offset the problems of the smallest member states. Following further elaboration

of Commonwealth thinking on this issue by Commonwealth Finance Ministers and senior officials in 1978, proposals for action drawn up by the Secretariat were considered at a special meeting of Commonwealth representatives in London early in 1979. This meeting, in which many of the smaller countries actively participated, agreed on the general shape of the program of action which was subsequently submitted to Heads of Government for approval.

The Commonwealth has recognized that, collectively, it can do much to help these countries in the post-colonial era. By drawing on the resources and experience not only of the developed countries but also accumulated by other developing member countries over a number of years of adjustment to independence, the Commonwealth has a valuable capacity to overcome the special problems of the smallest states and enable them to achieve a greater measure of self-reliance. It has of course been clearly understood throughout the preparation of a Commonwealth program of assistance that it should not stand in the way of the process of self-determination. On the contrary the program is predicated on the assumption of independence; it is designed to provide specialized support when countries most need it — following the achievement of independence. Nor will any of the measures of assistance be in any sense imposed on member countries. Each country will be free to choose whether or not it wishes to take advantage of this or that kind of assistance in accordance with its own national perceptions and priorities.

It is of course a fact that the aid programs of Commonwealth donor countries and the Secretariat programs (financed through the CFTC) already provide considerable assistance to the smaller countries. Much of New Zealand and Australian bilateral and regional assistance in the South Pacific is, for instance, specifically tailored to meet the special problems that the island countries face. Canadian assistance in the Caribbean is similarly oriented. A significant element of Secretariat assistance is in the form of specialized advice to the governments of small states and assistance in such areas as the negotiation of contracts with private sector organizations. The program of assistance approved at Lusaka is therefore designed to broaden and strengthen existing assistance, with particular emphasis on regional co-operation, bringing the fairly wide range of activities which directly or indirectly assist small states into a more co-ordinated focus and, where gaps exist, seeking to fill these in the most appropriate way. The program is

not intended as a formal institutionalized exercise. It is a flexible, open-ended arrangement which is expected to evolve over time in response to the expressed needs of the countries themselves. Provision has been made for subsequent consultation in order to improve existing assistance or introduce new measures as circumstances dictate. It is hoped that this Commonwealth initiative, which breaks new ground in a number of key areas, will help to focus the attention of the wider international community on the development problems of the smallest countries and to enable them to pursue their national or regional interests in a wider international setting.

Conceptual considerations

In the elaboration of the program careful consideration was given to such conceptual questions as the establishment of criteria for qualification for special assistance and the problem of defining 'smallness'.

For the purposes of establishing development assistance priorities, the concept of disadvantage is customarily expressed on the basis of GNP statistics. While the total GNP of a country is a broad indicator of the overall extent of economic activity and, as such, is a significant measure of a country's economic 'size', average per capita income is a much less reliable measure of the actual economic circumstances of a country. While GNP per capita remains the key indicator used to identify the low income and the least developed countries, it is of less value as an indicator of the particular disadvantages which beset the smallest countries. In fact, a relatively high per capita GNP recorded in certain smaller countries, if considered in isolation, can disguise not only the actual level of real development but also the in-built constraints on future development prospects.

The developmental problems of the smallest countries must therefore be viewed within the broader context of prospects for economic transformation, greater economic self-reliance, the evolution towards more diversified and integrated economic structures, the inculcation of a wider range of skills, the development of a broader technological base together with the necessary infrastructure and the creation of a wider range of economic opportunities. Countries with limited populations and resources experience particular difficulty in achieving progress in most if not

all these areas because of the uniformly high per capita costs involved. Most donor countries do not in fact rely exclusively on GNP statistics in the allocation of official development assistance (ODA). Increasingly, other qualitative factors are considered; the particular circumstances and development priorities of individual countries are thus of growing importance to the whole question of development assistance.

Although larger, more populous and, by definition (in terms of GNP per head), poorer developing countries also suffer from many of the disadvantages common to the smallest, they have a potential, by virtue of their size alone, to which the smallest countries, without specialized assistance, simply cannot aspire.

The United Nations had identified three categories of specially disadvantaged developing countries — the island developing countries, the land-locked and the least developed, and successive UNCTAD conferences have called for special measures of assistance for each category of country. Taking this as its starting point, and having in mind the need to avoid creating new official or semi-official categories of developing country for the purpose of establishing aid priorities, the Commonwealth reached the conclusion that the problems which beset its smallest members are those which arise from several distinct factors, often found in combination, including small population, limited available land, natural resources and skilled man-power, geographical or geopolitical isolation, and high per capita costs. Although the overwhelming majority of member countries with these characteristics are small island states, certain land-locked countries such as Lesotho, Botswana, Swaziland, and coastal states such as The Gambia and Belize share similar disadvantages. Thus, the conceptual framework includes both small island developing and other small but similarly disadvantaged countries.

The contents of the program

The program has two broad dimensions; the first is concerned with some of the key developmental problems faced by small states and the second focuses on the question of external representation.

The developmental assistance recommended includes action to improve the access of small states to sources of

international capital, both public and private, and to sustain the flow of ODA to small states, notwithstanding the incidence of relatively high GNP per capita levels in many such countries. The recommendations are based on extensive consultation within the Commonwealth as ways and means of achieving the objectives. As part of the existing program of assistance provided by the Secretariat, a meeting of finance officials from twenty Commonwealth island states was organized in Western Samoa in April 1979 to discuss the special problems of small island countries in mobilizing and utilizing external finance. The Secretariat is also arranging a series of seminars with a view to establishing more concrete means for improving the access of Commonwealth countries to international capital markets. These seminars will be of particular interest to the smallest member countries. Other areas identified for priority attention include food production and fisheries, the strengthening of public administration, transportation, trade, increased technical assistance — particularly in the preparation of larger projects for external financing, training programs and the enhancing of regional co-operation.

On the international front, countries with limited resources experience considerable difficulty in pursuing their national interests abroad both bilaterally and in the multilateral context. Scarce resources — particularly human resources — often preclude representation abroad and in an era in which discussion and negotiation at the international level is becoming the established *modus operandi*, it is increasingly important for the smallest countries to have their interests adequately represented. All too often the international community has failed to take account of the vital national interests of those whose voice is not heard.

The action recommended includes assistance from larger Commonwealth countries in the field of bilateral representation, in the provision of consular and other embassy facilities and an arrangement for multiple representation both in third country capitals and in the context of international organizations. The Secretariat too can offer valuable assistance in the form of advice and guidance to smaller countries in their relations with international organizations, the arrangement of diplomatic training courses in collaboration with other Commonwealth countries, and in reporting on the result and implications of international meetings at which the national interests of many smaller countries which cannot be represented are at stake.

Arrangements are already underway for the establishment of Commonwealth diplomatic training courses and it is expected that the other measures of assistance will also be operational shortly.

Chapter 23

A general perspective of problems of Pacific island countries: the SPEC experience*

Officers of the South Pacific Bureau for Economic Co-operation

With the exception of Australia and New Zealand, all SPEC members are developing island countries with wide divergencies in size, natural resources, income and population. The total land area of the Cook Islands, for instance, is 240 sq. km, which is one-fifth the size of Singapore. The fifteen islands of the group, however, are spaced over a sea area of about 2 million sq. km. At the other end of the scale Papua New Guinea has a land area of 462,243 sq. km. There are also differences in the current state of development as measured by conventional indicators.

*This paper builds on a paper prepared by the South Pacific Bureau for Economic Co-operation at the request of the Commonwealth Secretariat for the Commonwealth Regional Heads of Government Meeting held in Sydney, 13-16 February 1978. SPEC's experience with small states is limited to developing island countries in the South Pacific which are members of the South Pacific Forum, of which the current membership consists of Australia, Cook Islands, Fiji, Kiribati, Nauru, New Zealand, Niue, Papua New Guinea, Solomon Islands, Tonga, Tuvalu and Western Samoa. However, SPEC maintains contact with the remaining dependent territories in the South Pacific region through participation by these countries in some of the Bureau's project activities, including telecommunications, law of the sea, tourism and environmental management. The Bureau's experience is mainly in the field of economic development including trade and marketing, transport, telecommunications, tourism, finance and related issues under the general umbrella of regional co-operation.

Compared with countries outside the region, however, all SPEC island members have some characteristics in common: small populations, many in the subsistence sector; limited natural resources; vast distances from each other and major markets with consequent high external transport costs; export income dependent on a narrow range of tropical agricultural products (in some cases on a single product); serious balance of payment problems; high unemployment or under-employment; proneness to natural disasters; and a heavy dependence on aid. Nauru differs in that it has a high export income and high per capita income, but in other respects it is similar.

Smallness of size imposes constraints which can compound adjustment problems in the development process. The domestic market can be too small to ensure viable industries. There is a high requirement for imports and a corresponding dependence on export income. In several countries in the region it is typical for the annual import bill to be 400 per cent higher than export earnings.

The needs of developing island countries

Until recently the needs of developing island countries have tended to be regarded as similar in kind and different only in scale to the needs of developing countries generally. Aid donors and international organizations have sought to establish standard aid relationships with island countries. They have endeavoured to assist the development aspirations of these countries through traditional development assistance techniques such as technical assistance, project aid and finance on concessional terms.

Since UNCTAD III (Resolution 65) there has been a growing international recognition that the needs of developing island countries are different, not only in degree but also in quality. In resolutions adopted at the United Nations Conference on Trade and Development, most recently at UNCTAD V in Manila, ECOSOC and the United Nations General Assembly, the international community has exhorted those concerned to make special efforts to assist developing island countries (see Appendix I).

These efforts may yet become diluted because of a persistent tendency to group developing island countries together with the other particularly disadvantaged groups identified by the international community (the least developed countries and the landlocked countries) and to assume

that their needs are similar. In the South Pacific, Western Samoa was on the original list of twenty-five least developed countries identified by the Committee for Development Planning and approved by ECOSOC. Under the terms of the ACP/EEC Convention of Lomé, Tonga and Western Samoa are included in the list of least developed countries. The Fifth Session of UNCTAD in Manila recommended to the appropriate organs of the UN system that Tonga be included in the category of the least developed nations.

Similarly, global classifications of developing island countries and territories, as used by UNCTAD for example, inherently operate against the interest of groups of smaller island developing countries such as those in the South Pacific. This is because within the special measures being considered to assist developing island countries, the latter are grouped with countries like Singapore, Puerto Rico and Indonesia which bear little similarity in resource endowment and productive capacities to island countries of the South Pacific.

Apart from Tonga and Western Samoa which have been receiving special assistance as a result of their least developed classification, there is little evidence that the developing island countries in the South Pacific have been receiving assistance significantly different in kind from that offered to developing countries generally. It is SPEC's observation that in many cases the application of conventional approaches to development problems in island countries not only does not provide the help that is needed, but in some cases actually hinders governments in their efforts to develop in accordance with their own needs and priorities.

Some measures taken for the benefit of developing countries generally may have been detrimental to island countries' interests. Several had preferential arrangements based on historical relationships which were subsumed in the Generalised System of Preferences. In situations where a single market for a single product is of critical economic importance, competition from other developing countries can be troublesome. Moreover, some developing countries are far ahead industrially and have much greater resources to apply to development. In the eyes of small island countries they are not much different from developed countries.

In order to cope with disadvantages of this kind the developed countries and international organizations should

be prepared to adjust their assistance programs and policies to ensure that the full benefit of special measures are felt commensurately by the smaller island countries. To the extent that larger countries are better able to handle normal trade and aid relationships it is the smaller island countries that need special assistance. The more industrialized developing countries will have an important role in making special measures effective.

The resources of developing island countries

A few of SPEC's member countries, especially the larger ones, have human and natural resources which will allow them to achieve an acceptable level of economic development within a reasonable period of time. For a number of others, however, the prospects are different. Given current economic prospects and assuming traditional development philosophy and aid policies, these countries are likely to be faced with worsening balance of payments deficits and an increasing reliance on aid to finance government expenditures.

For some countries the economic activity generated by aid inputs is disappointing. With the advantage of hindsight many projects seem misconceived or have left a legacy of high recurrent costs. Some countries are finding that the hard-won fight for independence or self-government is being undermined by the loss of substantial policy and administrative control to aid donors as part of the price for receiving development assistance.

Ministers and senior officials in some countries are already obliged to spend a good deal of their time seeking new sources of funds. It is not uncommon in very small public services to find key officials and ministers having to spend a large proportion of their time and energy on external aspects of development questions and being left with little time to apply the benefits of this activity to domestic affairs. The limits of absorptive capacity in most island countries are set not only by economic factors but by administrative ones as hard-pressed officials cope with visiting missions and the overwhelming correspondence needed to get results.

Many of the developing countries of ten years ago have made dramatic economic progress. The Pacific experience is not so encouraging. The international community has now had a great deal of experience with development assistance.

There is a philosophy behind it which is generally agreed upon by both donors and recipients, and the aid policies of the donor countries and international organizations are to a greater or lesser extent compatible with these internationally accepted principles. Special measures for developing island countries would seem to require something different from 'more of the same but on better terms'. A reassessment is needed of the appropriateness of existing approaches and a willingness to modify these for island countries because of their vulnerability and other unique characteristics.

Strategy for action

The problems of island developing countries have been well documented, both on a country-by-country basis and regionally. An attempt is made here to highlight a few major areas where the unique characteristics of development thinking invite a departure from conventional development thinking. This list is not intended to be exhaustive nor to meet the requirements of all countries in the region. Each country will set its own priorities in bilateral economic and aid talks. The points given prominence, however, have caused specific difficulties in the past and unless solutions are found they can be expected to give trouble in future.

Trade relations. It would be misleading to dramatize the potential for generating export-oriented economic activity in island countries. The size of the balance of payments gap is indicative of the problem. Nevertheless there is some unused capacity. For some island countries items entering trade at present are largely unprocessed agricultural products such as copra, coffee, cocoa, bananas, oranges, pineapples, limes and taro. Food processing is in its early stages. Emphasis has been on agricultural development.

Many officials in developing island countries take the view that until good access is available in the major markets no significant improvements in trade can be expected. Officials in the major markets have tended to the view that access is not the main problem; the problems are more on the production and marketing side. Nevertheless, they have indicated a willingness to discuss specific access problems as they arise. It may be that both points of view are right. Access might not be the problem it is seen to be, but island producers are unlikely to have the confidence to make the necessary investments unless there is evidence that markets will be available.

Experience has shown that it has sometimes taken political intervention at the highest level to make progress when specific problems are brought to the attention of governments in the major markets. Many of those things that might be produced competitively in the Pacific, for example footwear and clothing, compete with sensitive domestic industries in the developed countries. There is a similar conflict over certain agricultural products, including bananas, sugar, citrus fruits and tomatoes which can be produced competitively in the Pacific.

Quarantine restrictions are an effective non-tariff barrier in many countries in the South Pacific region. A pests and diseases survey aimed at identifying and cataloguing the various agricultural pests and diseases found in each country has recently been completed. It is hoped this will make clearer which quarantine restrictions are serving the purpose for which they were introduced.

If markets were opened and transport problems were solved, a larger trade in agricultural commodities might be developed for some countries. The social cost has to be taken into account where fertile land is scarce and land use is tied to local custom. It seems, nevertheless, that island countries with under-utilized land would welcome development of agro-industries and would be prepared to bear the domestic consequences provided the market was sufficiently secure to justify their making the necessary changes and investment. However, almost all island countries have had experience of trying to develop agro-industries based on anticipated markets in New Zealand and elsewhere. Most such efforts have not lived up to expectations. Undoubtedly there are many faults on the production side, including lack of experience, but it is also clear that transport problems, quarantine and phyto-sanitary regulations and access restrictions have played their part.

Industrial and manufacturing possibilities have been studied and other studies are in the pipeline. If markets can be found and developed, a higher level of manufacturing activity might make a useful contribution through import substitution and from export receipts. Equally, constraints will become quickly apparent. The limited domestic market in island countries, high infrastructure costs and existing development philosophies of island countries make it extremely unlikely that the experience of Singapore, Taiwan or Korea can be emulated in the Pacific. Manufacturers and unions

in Australia and New Zealand have to be reassured that the scale of Pacific operations will not place serious strains on their domestic interests.

Opportunities exist for industrial development with appropriate technology on a scale suitable to the countries of the region. Some such industries may not be competitive with comparable industries in other developing countries or in high technology countries. They will be extremely vulnerable in competition. Nevertheless because of the employment they would create and the economic activity they would generate, they could make an important contribution to economic development.

The EEC has set an important precedent through the Lomé Convention which offers significant assistance to some countries in the region. For example, assistance under STABEX is particularly helpful to the least developed island countries and can be regarded as the kind of special assistance that is relevant and needed. Unfortunately the distance to the EEC market makes it difficult for Pacific countries to compete with African and Caribbean countries on most products.

Within the region Australia and New Zealand are willing to consider changes in existing arrangements. Australia has concluded a Trade Agreement with Papua New Guinea (PATCRA) which has some features of a free trade agreement, but effectively affords preferential access on a non-reciprocal basis to Papua New Guinea exports. This kind of approach seems directly relevant to the special needs of island countries.

A welcome development along similar lines saw Ministers of Trade from Forum countries at a meeting in Tonga in June 1979 agreeing to recommend to the Forum that 'member governments of the South Pacific Forum enter into negotiations to establish a comprehensive non-reciprocal trade agreement in favour of Forum Island countries ...'. Ministers furthermore resolved 'that it be noted that pending the conclusion of negotiations Australia and New Zealand would continue to give full and sympathetic consideration to a request to provide improved access for products of special export interest to the Forum Island countries'. The Forum in its Honiara meeting in July 1979 endorsed the recommendation of Ministers, which also required the Director of SPEC to convene a meeting of senior officials in September to establish appropriate

negotiating procedures and to carry out the negotiations. This meeting was a preparatory session aimed at establishing a plan of action for negotiations towards a draft agreement.

Matters which might be taken into account in future consideration of trade relations include:

(i) The long experience of the developed countries in negotiating and handling bilateral trade agreements and trade talks in multilateral bodies such as the GATT, UNCTAD and the EEC. In the process these countries have established institutional structures capable of dealing with trade relations on a highly technical and professional level. There is no equivalent capability in most island governments.

(ii) The experience of the developed countries has tended to be in situations where a trade-off is negotiated. A similar approach would not be appropriate in considering trade relations with developing island countries, which have very few bargaining counters in strict trade terms. Because of their development needs new arrangements would need to be non-reciprocal.

(iii) Island countries' initiatives into trade relations which might be more appropriate and realistic to their development needs are constrained by existing international agreements and obligations for which they had no part to play in establishing. Developments towards the new International Economic Order could be fruitful if questions such as rules of origin, which presently require unrealistic value added levels, could be re-examined in the light of the special problems of island developing countries.

(iv) The lack of trade relations experience in government is paralleled in the private sector. If the establishment of a new industry called for detailed negotiations on access in an overseas capital, most entrepreneurs would be too daunted even to try. Moreover, the scale of many potential industries, while appropriate to an island country and able to make an important contribution to the island countries economy, would not be large enough to support the visits to developed capitals that could be required to engage the attention of busy officials on matters which in correspondence may seem comparatively trivial.

(v) The questions now being posed are fundamental to development in the island countries. 'Trade not aid' is by

now a cliché, but it is no less true for that. What the island countries seek is a certain framework within which not only an investment decision could be made but also within which the lives of future generations might be decided.

In summary, if the developed countries, particularly those in the region, were able to consider new trade arrangements with their neighbours, ideally such arrangements should not require a heavy investment of time and effort by island governments. They should grant preferential access and protection on a non-reciprocal basis, should create a climate of confidence in the island countries and not leave the burden on them to negotiate special arrangements for specific products as and when the need arises, and, finally, should be simple to operate and not require a heavy administrative support system. Forum island countries are fortunate in the enlightened approach of both Australia and New Zealand towards their problems and no doubt hope that this spirit will continue in forthcoming Forum trade negotiations.

Other developing countries, particularly those in Asia, could have an important role in this exercise. They could be asked to recognize that they will be major competitors in the markets for most exports from island countries and that some self-denial might be required if the special measures for island countries are to be effective. Their support would be essential if preferential arrangements were to be explained in international bodies such as GATT. The larger developing countries would make a positive contribution to the aspirations of developing island countries by indicating a willingness themselves to enter into preferential, non-reciprocal trade agreements with their more disadvantaged friends.

More effective aid. Island countries in the South Pacific have already expressed their concern about the effectiveness of aid. This concern led to the establishment by SPEC of an Aid Review Task Force whose report is contained in the document *More Effective Aid* (SPEC(76)11). It is evident that some major donors have made an effort to modify their aid policies, but certain problems remain.

At the present time aid donors tend to favour projects aimed at rural or agricultural development or which assist the poorest of the poor. Fisheries and the resources of the sea also seem popular at present. While these may be important in individual country priorities, it means that there

is less interest by donors in infrastructural projects, especially those which require a heavy capital investment. In a country in which aid inputs make a marginal contribution to total development expenditure, this approach for favouring assistance in certain sectors may be tolerable. In the South Pacific where some countries are dependent on aid to finance virtually the whole of their development budgets and for some part of their administrative budgets as well, this attitude makes rational development extremely difficult.

The difficulties for these countries are compounded when several aid donors are involved. Very few donors entrust project identification missions with authority to agree on projects put to the mission. Many months – sometimes years – might elapse before the country learns whether the donor has agreed to the project. Donors sometimes insist on doing additional project appraisals of their own; they frequently suggest modifications from a distance without full knowledge of local conditions, and usually require a maximum use of their own consultants and their own construction firms and materials. Aid donors work to different checklists, regulations and approval procedures. Financial years are different. Because certain kinds of projects are more popular than others the less attractive ones have to be pressed upon several donors before a taker is found. Many donors, including international organizations, place heavy demands on governments in the administration of ongoing projects.

This combination of forces puts great pressure on island governments. These governments are subject to the usual political imperatives; they have to respond to the needs of their people or face the consequences. However, for the reasons in the preceding paragraphs, island governments may have very little freedom to allocate resources according to priorities as they themselves interpret them. The delays and confusion which occur as various donors evaluate projects can reflect badly on the island government in the eyes of its own people and other aid donors. Many projects interlock and when one piece fails, or a taker cannot be found, charges of inefficiency or lack of commitment are sometimes made.

The solution to these problems lies particularly with aid donors. Modifications in policy which they might consider specifically for developing island countries include:

- (i) Moving away from project aid and allowing for island countries, undesignated grant aid, program aid or undesignated sectoral assistance.

- (ii) Investing aid missions with authority to commit the donor government. If matters have to be referred back to capitals for approval this should be treated with the utmost urgency. Such decisions are usually crucial to coherent development planning in the island country.
- (iii) Delegating maximum authority to local representatives and administering aid on the spot as much as possible rather than in head office.
- (iv) Accepting that aid proposals have been carefully thought out and screened by responsible people in island governments who are intimately aware of local conditions. Island governments know when they need help and are not reticent in asking for it. Aid donors should send their own experts back to check over proposals and suggest amendments only when asked to do so.
- (v) Recognizing that their requirements for economic justification of projects may be inappropriate and that they create a heavy administrative burden on the island government.
- (vi) Adjusting priorities so that the assistance actually delivered harmonizes with the priorities set by the developing island countries.
- (vii) Considering assistance which by normal criteria is unpopular but which is precisely the sort of aid developing island countries need, e.g. transport subsidies, financing of essential imports, debt servicing help and administrative support not only to governments but also to statutory bodies and even, in appropriate cases, to the private sector. We have noticed in the Pacific that it is not hard to obtain plenty of advice, but it is not so easy to find people who can make use of expert advice and put it into practice.

Manpower assistance. Many donors are reluctant to make available to island governments qualified personnel to fill essential in-line positions. There is also some reluctance to finance such positions. For those governments for whom the colonial memory is fresh there is a natural inclination to stand back and not be exposed to charges of interfering.

International organizations are also generally not keen to fund in-line positions unless the post is substantially a training position to prepare counterpart staff to take over. The motives which underlie the reluctance to supply in-line professional and administrative personnel are reasonable enough in other situations, but the problems of manning very small government administrations call for special solutions.

In many island countries there may not exist a pool of professional or technical people interested in filling certain positions after appropriate training. Where such people are available training assistance is welcome, and it is SPEC's experience that island countries take full advantage of training opportunities.

However, there are many positions in island governments, particularly those requiring technical or professional experience, where there is no one qualified to move in or even understudy for the position. In this situation the training component is not present, but the government still needs someone to do the job. The international market for experts is such that it is unrealistic to expect that many well qualified people can be found to accept local salaries. Equally, the cost of paying internationally competitive salaries is prohibitive. The only practical solution is manpower assistance from aid donors.

Island governments fully understand the implications of placing expatriate personnel in senior in-line positions. It is something they have come to terms with and most have developed their own ways of ensuring that these people are under their control for all practical purposes. International mobility of technocrats is a fact of life in the corporate world and international organizations and it is not unknown in the governments of developed countries.

Some donor governments are now entering into manpower agreements with island governments. Frequently, developing island countries ask for assistance from friendly governments or international organizations to recommend well qualified people for specialist assignments. In these situations the island governments need to have complete authority in the selection, appointment and control of expatriate staff.

There is another aspect to manpower assistance but in the opposite direction to that outlined above. For island countries human resources are a major resource. During

periods of high employment several countries in the region have drawn on this pool of labour to supplement their domestic labour forces. With the general fall in the level of economic activity and the tightening of the labour situation certain legal anomalies relating to the status of migrant workers and their families have become painfully apparent.

Although the employment situation has worsened, some thought might be given to the longer term issues involved. The question of permanent migration is something quite separate. Migrant workers have become a permanent feature of the Pacific economy. It has been shown that migrant workers can make an important economic contribution both to their developing island countries in the region and to the economies of the developed countries. Experience has shown, however, that migrant workers are very vulnerable to exploitation. It seems appropriate that a regional code of conduct be established to facilitate the movement of workers, to protect their interests and to prevent the problem of illegal overstayers.

Transport and communication. The large capital investments involved and high running costs of modern shipping and airline services pose very difficult problems for developing island countries. Effective communications are a catalyst in development, and in the Pacific they are especially important because of the nature of the region.

If strictly commercial considerations regulated transport services in the Pacific the services provided would not be adequate to meet the expectations of governments or peoples in the region. Some transport services are already being subsidized. While every effort should be made to rationalize services in shipping and in aviation (see following section) it must nevertheless be accepted that in the geographically dispersed South Pacific region some uneconomic services will need to be supported if the overall transport requirements of the region are to be met.

Transport subsidies are not the kind of charge that aid donors normally like to meet from their aid programs. However, island countries have a unique problem because of the great distances and comparatively small loadings involved. For developing island countries a special solution is needed. They do not themselves have the resources to subsidize services on the scale required. The only solution is to ask aid donors to take on the responsibility as special assistance

to developing island countries until such time as the total level of trade in goods and services by regional carriers is sufficient to support these services.

Regional co-operation

There is sufficient evidence available to confirm that regional co-operation can be a powerful force for development. While many problems of developing island countries might be solved more easily with outside assistance, some are capable of solution by the island countries themselves.

Over six years SPEC has found that it is much easier to talk about regional co-operation than to make it happen. Most countries in the region have fairly recently become independent or fully self-governing. They are now running their own affairs and with so much to be done it is natural that protection and promotion of the national interest will dominate development decisions. Moreover, the extent of development in the region is uneven, so that some regional activities benefit some countries more than the others.

For these reasons and also because a number of hopeful regional projects have taken a long time to come to fruition, it has been suggested that regionalism is a good idea but it just does not work. SPEC feels this to be a shortsighted view. The case for a regional approach to certain problems is as valid now as it ever was. The region has learned a great deal about the techniques of regional co-operation and, despite the lack of progress of one or two projects, there now exists a regular pattern of regional consultation on a very wide range of activities.

In the field of shipping, for example, it took a long time to get the Pacific Forum Line established. Five years of studies with regular meetings of ministers and officials were necessary before eight governments came to the point of committing themselves to investing in the Line. During the process a great deal was learned about the politics and the economics of shipping services. The point was brought home clearly that the development needs of the region required a level and frequency of shipping services that is not matched by the cargo being moved, especially from the smaller islands. Several shipping services in the region were incurring losses. It is hoped that a more rational deployment of ships and the acquisition of modern vessels designed for the regional trade will minimize losses.

The experience of trying to set up a regional airline has shown more than in any other area the difficulty of reconciling the different national interests in a regional undertaking. Nevertheless, the principle remains valid that certain areas of economic activity including civil aviation are most effectively tackled on a regional basis. What has emerged from initial efforts at regional co-operation in this field is a process of consultation at ministerial and official levels through the Regional Civil Aviation Council and the Advisory Board. It is already evident that by focusing first on less dramatic objectives than a regional airline it is possible to improve the quality of and share the responsibility for good air services in the region.

Accordingly one approach that has been taken on regional civil aviation matters is to establish an Association of South Pacific Airlines (ASPA) which held its inaugural meeting at SPEG headquarters in May 1979. Full membership of ASPA is available to those airlines having their head office in the South Pacific. The objectives of the association essentially involve the promotion of co-operation among member airlines for the development of regular, safe and economic commercial aviation within, to and from the South Pacific region.

A regional approach to telecommunications in the South Pacific has resulted in substantial improvements in telecommunications systems and has led to the development of a regional network of world standard. By approaching this development regionally it is possible to reach sources of finance which would not otherwise be available.

Energy policy is another area in which regional consultation could have an important bearing on the kind of action taken by governments. On present trends the region will have a rapidly expanding requirement for energy at least for the next decade as current industrialization and rural development programs take hold. Much of this energy will have to be imported as petroleum products. It might be desirable at an early date to assess the energy needs of the region and the generating capacity within the region, and to seek a solution for the future which will meet the needs of all.

A most recent example of progress through a regional approach is that relating to the pursuit of negotiations to establish a comprehensive regional non-reciprocal trade agreement between Forum island countries on the one hand,

and Australia and New Zealand on the other. However, whilst the successful negotiation of a trade agreement might lead to more favourable trading relationships, regional co-operation will be brought to the test when closely related questions dealing with agricultural and industrial development co-operation (which are long-term in nature and fundamental to a more mutually beneficial economic relationship between all member countries of the Forum) are posed.

The above are examples of areas where regional consultation may have an important bearing on the kind of action a government takes in the execution of its own programs. There are other areas where the countries of the region speaking with a single voice can make themselves heard over the threshold of sound generated by the international community generally. The EEC has allocated to the Pacific member states of the Lomé Convention 36.6 million European units of account for the duration of the Convention. The substantial benefits from this association with the European Community resulted largely from the concerted approach by the Pacific countries together with the African and Caribbean countries of the ACP group.

Conclusion

There is no typical profile for a developing island country. Nevertheless, most islands share certain characteristics which make it difficult for them to take full advantage of international efforts to improve the economic prospects of developing countries. For some island developing countries, current trade and aid relationships may be having a negative effect on their development prospects.

Developing island countries are not seeking to promote their cause as being more needy than that of the other developing countries. A tolerable minimum standard of existence in terms of nutrition, shelter, education and health services is already attained in nearly all South Pacific island countries. The development plans and policies of most governments would indicate that their next priority is the creation of employment opportunities, the expansion of productive capacity and the provision of communal utilities in villages and rural areas consistent with living in the twentieth century.

This will not necessarily call for additional aid inputs, although some countries have a capacity to absorb

more aid. The objective is more likely to be achieved by adjustments in trade policies of more industrialized countries and by a more flexible application of development assistance techniques.

In the final analysis, responsibility for the future of the island countries in the Pacific lies with the governments of those countries. Our experience would indicate that what they seek is the means to enable their peoples to fulfil their legitimate aspirations. More often than not the means are in the hands of richer countries in the region, in Asia and in international organizations.

With their movement towards political independence, island countries in the Pacific, as the preceding analysis has shown, have seen it as desirable to co-operate in various areas and have therefore established appropriate institutions to assist as well as co-ordinate such co-operation. Not only are the staff of these institutions made up of people from the region, but these institutions are also close to the governments of the region, and see and experience at first hand the development problems of the island countries. A greater recognition of the possible contribution of these institutions by aid donors would promote effectiveness in implementing programs.

The voice of island countries is not heard often in international gatherings. Nor when it is heard does it trumpet loudly its own causes. Sometimes it does not seem to be heard at all. The nature of the problems of developing island countries is known; that they need special solutions is acknowledged; what they now seek is *action*.

Appendix IExtracts from United Nations Resolutions
Relating to developing island countries1. UNCTAD III Resolution 65: Developing Island Countries

(Operative Paragraph)

Requests that the Secretary-General of UNCTAD, in line with the objectives of the International Development Strategy, and in collaboration with the regional economic commissions and the United Nations Economic and Social Office in Beirut, convene a small panel of experts selected in their personal capacity to identify and study the particular problems of these countries and to make recommendations thereon, giving special attention to the developing island countries which are facing major difficulties in respect of transport and communications with neighbouring countries as well as structural difficulties, and which are remote from major market centres, and also taking into account overall prospects for, as well as existing levels of development. The report of the panel should be submitted to the Trade and Development Board for its consideration before the end of 1973.

2. United Nations General Assembly Resolution A126 (XXXII)

(operative Paragraphs)

- (i) Takes note of the report of the Secretary-General on progress in the implementation of specific action in favour of developing island countries (A/32/126 and add. 1) and welcomes the initiation of the measures specified therein.
- (ii) Welcomes in particular the activities undertaken by the United Nations Conference on Trade and Development, including the establishment of a unit of its Secretariat devoted to the problems of least developed, land-locked and island developing countries.
- (iii) Also welcomes the progress achieved by the United Nations Industrial Development Organisation in its implementation of the special technical assistance programme for developing island countries.
- (iv) Urges all organisations in the United Nations system to continue to identify and implement, within their respective spheres of competence, appropriate specific action in favour of developing island countries in accordance with the recommendations of Resolution 98 (IV) of the United Nations Conference on Trade and Development, in particular those concerning the fields of transport and communications, trade and commercial policies, industrialisation, tourism, the transfer of technology, marine and submarine resources development, the flow of external resources, environment protection and response to natural disasters.

- (v) Further urges the United Nations organisations concerned, in particular the United Nations Development Programme and the regional commissions, to give attention to programmes of regional and subregional co-operation in respect of developing island countries.
- (vi) Calls upon governments, in particular those of the developed countries, to take fully into account, in their bilateral and regional development efforts and in relevant negotiations towards the attainment of the objectives of the new international economic order, the special problems of developing island countries.
- (vii) Decides to keep under review all progress in the implementation of the present resolution and requests the Secretary-General to submit for the consideration of the General Assembly at its thirty-fourth session a sectoral analysis of action undertaken in favour of developing island countries and proposals for further consideration, taking into account the consideration of this question by the United Nations Conference on Trade and Development at its fifth session.

3. ECOSOC Resolution 2126 LXIII

(Operative Paragraph)

Recommends that the General Assembly at its thirty-second session give full consideration to the progress report of the Secretary-General, entitled 'Progress in the Implementation of Specific Action in Favour of Developing Island Countries' with a view to the stimulation of further attention to the need for specific action in favour of developing island countries, both by the organisations concerned within the United Nations system, and by all governments, particularly those of developed countries.

4. United Nations General Assembly Resolution A/156 (XXXI)

(Operative Paragraphs)

- (i) Invites the executive heads of the organisations concerned within the United Nations system, in particular the United Nations Development Programme, in the continuation of their efforts with respect to developing island countries to incorporate in their regional and interregional programmes the relevant recommendations contained in Resolution 98(IV) of the United Nations Conference on Trade and Development.
- (ii) Urges all governments, in particular those of the developed countries, to lend their support, in the context of their assistance programmes, for the implementation of the specific action envisaged in favour of developing island countries within the framework of their development plans and priorities.
- (iii) Calls upon the Secretary-General to submit to the General Assembly at its thirty-second session, through the Economic and Social Council, a progress report on the implementation of specific action in favour of developing island countries.

Section IX

An Assessment

Chapter 24

Issues and prospects

R.T. Shand

'Subsistence affluence' may well have been a happy state of self-reliance but few now wish to remain in it. The real problem for many small island states is to progress beyond it, and yet retain an acceptable degree of self-reliance. From a developmental viewpoint, such initial affluence now appears to be a disadvantage, for the availability to developing countries of financial assistance on soft terms is predicated largely on a low average level of per capita income and is not influenced by the problems of raising this level. This also helps to explain why the priority areas for development assistance are frequently not relevant for small island states (relief of poverty, food production, etc.). One difference, then, between these and other developing countries, is that the latter start off poorer. Beyond that, the differences are associated with the smallness, isolation and fragmentation of small island states, and its special handicaps that these impose on efforts to modernize and raise domestic living standards.

The case for external assistance can be best appreciated in terms of the unfavourable interaction of a number of dynamic socio-economic factors in small island states. The first of these is demographic. Caldwell and colleagues show that some of these island states had demographic characteristics that were more like those of Western countries than of the Third World, for example declining fertility. Nevertheless population growth rates are still high, and population densities are also high by developing country standards, because of fast population growth rates in the past. Lucas shows that, of the eighteen island states selected, thirteen had rates of natural increase above 2.4 per cent, and of these five were over 3 per cent. Where island land areas are small, and cultivable areas are even smaller, pressures on resources are already evident.

Admittedly, some have close links with metropolitan countries, and emigration has reduced this problem. Lucas's figures indicate that only five of the eighteen island states had population growth rates of 2.4 per cent or more, and only three were in excess of 3 per cent. As the foregoing contributions make clear, however, there are disadvantages as well as advantages in emigration both for island states and for recipient countries, and it is an uncertain solution to the demographic problem, as Roux demonstrates.

Rising demands for higher material living standards among islanders is a second dynamic factor. Ward argues that these aspirations are higher, and are rising faster, than in other less developed countries because of the close links between island states and developed metropolitan countries, and because by taking employment in the latter, islanders can realize their aspirations.

Commercial agriculture was the mainstay of earlier economic development. Initial commercialization, wherein cash crops were added to subsistence crop production, provided a modest cash income, which satisfied limited targets of higher living standards. Ward argues that commercial agriculture is now unable to satisfy the rising ambitions of islanders. In some, particularly the micro states, resources are not available to permit a fast rate of agricultural development. But even in those where they are available, rigidity of land tenure and socio-economic organization of production are inhibiting the desired rate of output expansion. In Ward's view, new forms of production organization are needed, but even with those, only the largest of the island states, such as Fiji and the Solomon Islands, will have the resource capacity for an agricultural growth rate that can match rising aspirations.

The fourth dynamic element is transportation. Not only are there substantial additional costs associated with remoteness of location, fragmentation of land area and low levels of output, but as Brookfield points out, technological change in shipping transport increasingly favours large-scale operations, and as the ratio of ship size to markets increases, services diminish to outlying areas and islands. This deterioration in linkages further weakens the incentive to produce for the market and encourages a flow of emigrants at least to the towns or cities, if not to metropolitan countries.

Interaction of these dynamic factors produces a disturbing picture, particularly for the micro states, in the short to medium term. Unless new development prospects can be found and exploited, those states with linkages to metropolitan powers will experience continued emigration, to the detriment of the structure and integrity of their communities, while those which do not will experience severe pressures of population on resources, much unemployment, and mounting internal strains upon the fabric of society.

Given the paucity of land resources for all but a few island states, the alternative of marine resource exploitation becomes a major consideration. Both Kearney and Lawson see a very limited potential in the resources of reef and lagoon. It is the prospect of offshore fishery development, based on the migratory species within the 200-mile economic zones, that has raised hopes in recent years. Kearney's assessment of these resources in the Pacific region, arising from his own marine survey work, is encouraging in terms of the availability of tuna and the possibilities of other species such as deep water snapper. He is critical though of any assumption that this therefore offers an easy solution to the economic problems of island states.

Smallness here imposes particular problems of operational scale upon small island states wishing to launch a major fishing venture themselves. Kearney's estimate of the minimum catch needed for economic viability is 8,000 tonnes of tuna per annum. This creates at least three problems for island states. First, few have the skilled manpower for an industry of such size; second, most do not have the capital to finance such a large venture, and third, most lack the baitfish resources required for such a minimum catch. If on-shore processing is added to the fishery enterprise, the first two problems are magnified by the necessary provision of power and water supplies.

Smallness is still a problem if island states pursue the alternative option of licensing foreign fishing fleets and imposing fees. Since tuna are migratory, regional co-operation is needed. Kearney casts doubt upon the capacities of Pacific island states to implement their individual fisheries agreements effectively, unless all or most agree to act in concert. As an additional complication, Kearney suggests that the current profit margin for fleets operating in the Pacific Ocean is slim, and that the imposition of such fees could discourage activity.

In the monetary sector, the key, development-oriented, sector that serves foreign trade, Dommén argues that small island states have special difficulties. While all developing countries experience variable export prices and supplies of export commodities, island states have a very narrow export range which makes them particularly vulnerable to external shocks, both physical (e.g. hurricanes) and market (e.g. price variation). Diversification, which is difficult anyway in such economies, will not be particularly effective if it involves other commodities which suffer similar cycles and fluctuations in international markets, and should ideally be into new types of enterprises. Dommén and Wace consider a range of conventional and unconventional possibilities which will be further discussed below.

Diversification can offer a cushion against external shocks, but also, of course, strengthens the domestic base of the economy. In most small island states, plans for this have to contend with severe limitations to local supplies of capital and skills. They thus have to come to terms with the vexed question of the role of foreign capital and expertise, and that of national participation in new enterprises.

Dommén points out that small island states have a number of features that are attractive to foreign investors: a familiar legal and institutional framework, relative political stability and a high level of education compared with most other developing countries. Provided local attitudes towards foreign investment are favourable, investors will be willing to develop new industries, such as tourism. Britton's case study of the tourist industry in Fiji illustrates well just how dominant foreign capital can become. In the tourist industry, this follows from the location of travel firms in metropolitan countries, their access to customers and to capital, their market promotion agencies and their involvement in, or links with, transport corporations and networks. Also, the economic advantages of tourist business are not unqualified for island states: there is a high degree of leakage of foreign exchange earnings, and the level and direction of tourist flows are very much under the control of the overseas interests. Since the island states tend to offer quite similar tourist experiences, and because they are frequently only short stop-over points on main routes to metropolitan destinations, island attractions are substitutable, which makes them vulnerable. The problem in this, as in other enterprises involving foreign capital,

is achieving island participation that gives local business and/or government an adequate share, and level of influence, in the ventures.

Several contributors emphasize the importance of the role of the public sector in island states, one which appears to vary inversely with size, as the number of viable business opportunities diminishes with smallness. The fact that so many island people have had close contacts with neighbouring developed countries and have enjoyed the comforts of high living standards has induced a strong demand for high levels of public services in their home communities. As Fisk observes, if these are not somehow met, emigration accelerates wherever this is feasible. With expanding populations, there is a heavy demand for health and education services and for high standards of social infrastructure, such as airports, roads, power, water supplies etc., and the main burden is placed on the public sector to provide these. Smaller states, especially micro states, with little public revenue at their disposal for these purposes have to rely on external assistance.

Kennedy and Hope set out the particular problems of education in small island states. These arise principally from the familiar influence of smallness: high per capita costs, since certain items are irreducible below a certain minimum, such as teachers, building and equipment. Per capita costs rise particularly steeply for micro states, and this problem multiplies with fragmentation. For unless the system is centralized, there is duplication and considerable under-utilization of capacity, to the point where, in micro states, permanent facilities are difficult to justify. Kennedy points out that the basic problems of education in island states are the same as elsewhere in the Third World, that is finding the resources to provide enough high quality education that is appropriate for national needs. It is the particular manifestations of these problems in small states that distinguish them from those in other developing countries; e.g. the design of a relevant system for an island state when there is easy access to a metropolitan country; the maintenance of quality in educational inputs when, to the limited numbers of students available, other occupations appear more attractive than teaching, or when teachers are offered more lucrative positions; the choice of a curriculum for a micro state that has so few employment opportunities, and the choice of content for a localized curriculum when written material is so limited

and so few teachers are available to design and staff it. Distinctive problems also arise in assessment, teacher training, in language policy and in tertiary education policy. Micro size clearly magnifies problems in most aspects of an education system.

In micro states, there is little scope for private health services, so the whole responsibility is placed upon the public sector. Provision of public health services for small island states poses a set of problems parallel to those of education. According to Hirshman, many island states are saddled with the 'monumental' hospital from colonial times. Whilst there is a need for hospitals, those inherited have very high costs of treatment, staffing and maintenance, which are a disproportionate burden for such small countries. As with education, the costs of medical training, in relation to the number of medical practitioners required, are prohibitive, particularly when set against small island budgets and the other competing claims. Again, fragmentation raises the per capita costs of services even further.

Financial assistance in the form of development aid has expanded rapidly with nationhood for island states in the South Pacific. Cole suggests there is now no real shortage of this type of finance. The bilateral aid problem lies rather with how to manage the donor-recipient relationship and how to implement the multiplicity of projects arising from the offers of help. Bilateral aid aside, Cole argues that there is still a credit gap for capital investment in both public and private sectors, especially in the smaller island states. For some, this is partly explained by institutional bottlenecks, for example lack of relations with international banks and/or the absence of local development banks. For the smallest, the need is tempered by a concern as to how such loans could be repaid.

The financial experiences of the small islands in the Caribbean have extended over a longer time, but appear to have been very similar. Provision of infrastructure and a wide range of public services have imposed large fiscal burdens, but these have stimulated only limited private investment, so with weak linkage effects there has been no substantial expansion in public revenues to pay for these public outlays. Without local resource mobilization and rising public revenues, reliance has had to be placed on outside funds. The Caribbean island states were, however,

too small to tap international markets, while international agencies found it uneconomic to provide the small loans required. Thus micro states were at a special disadvantage, which partly explains the establishment of the Caribbean Development Bank. Problems did not disappear with the creation of the CDB, for the Bank in turn experienced difficulties in mobilizing funds for its members. The reasons read familiarly to Pacific island states: the high per capita incomes of some, insistence by donors/lenders on rigid project evaluation criteria which were beyond the capacities of these countries to meet, rigidity in lending purposes, and difficulties in disbursement policies, all of which affected micro states most.

In earlier days, there was concern about the political viability of small island states. According to Allan, this soon turned more towards the question of economic viability, and belatedly to the high cost of government and how to minimize the bureaucracy to trim costs. Questions of government for Allan, and for May and Tupouniua, focus on the form of constitutional government an island state can afford, the level of activity in foreign relations, staffing of the bureaucracy, the type of planning machinery, and an appropriate legal system. Powles discusses how constitutional law and practice may diverge in island states because of smallness. This can be due to the impracticality of the particular constitution chosen for island conditions, or to a lack of proper adherence to it by policy makers. Powles discusses the difficulties of modifying a constitution appropriately when there are inadequate funds and personnel available to establish study and policy recommendation groups. For lack of staff, too, there is a lack of legal expertise in the administration of justice, for developing a program of law reform and to give advice on special topics in the face of the demands of day-to-day responsibilities.

The question of viability of small island states has been a matter of considerable concern since the 1950s. At that time both the economic and political viability of most island colonies, moving towards independence, were suspect, and, in the Caribbean, a federation was proposed as a possible, but in the event unsuccessful, solution. Later on, concern focused on the appropriate size of a bureaucracy that would not imperil economic viability. With time and the experience of independent island states, with expanding financial flows to these countries, particularly in aid form, and with better communications, these fears subsided.

The concern is now to find opportunities for development that can somehow meet the objectives of maintaining political independence, increasing economic self-reliance, raising living standards and preserving the values, traditions and integrity of island societies. In more specific terms, this becomes a question of whether it is possible to expand the economic base of such islands sufficiently to stem, or even reverse, the flow of emigrants where there is close association with metropolitan powers, or, where there is not, to employ the growing domestic populations gainfully, without an undue reduction in economic self-reliance.

Some prospects

Much hope rests on the potential of sea and seabed resources within the 200 mile economic zones of the island states. Some of these resources are yet to be proven, or fully proven, such as fish species other than tuna, and the mineral resources of the seabed. For the major tuna resources, Kearney suggests it remains to be worked out how the island states can participate in a controlled form of exploitation. He sees a potential for more than the two pole-and-line fisheries in the Pacific region, now based in Fiji and the Solomon Islands, despite the constraints of baitfish availability. Regional co-operation will be needed to develop a uniform fisheries policy, and one for the management of the migratory species. He also advocates further survey work in other species. Lawson suggests there may be scope for enhanced, and more efficient, exploitation of coastal fish resources located outside the island reefs. This would require an expansion of domestic demand, which if accomplished would enable modernization of vessels and fishing techniques in the existing artisanal fisheries industry. Both could be encouraged by government with an extensive package of inputs, supported by expert advice.

On land, Ward suggests a range of strategies for agricultural development, within which choice will be dictated by the particular characteristics of each island state. For the atoll-type micro state, he favours 'multi-storey cropping' with nuts and fruits, leading to stable but more diversified agricultural production for subsistence and export, and yielding revenues that would help to maintain the desired level of government services. On bigger but fragmented island groups with larger labour supplies he suggests a combination of extensive cultivation on the outer islands and intensive cultivation on the main island(s),

with a form of centralized management, and production of food crops for export in sufficient volume to gain scale benefits in processing, transportation and packaging. In relatively large island states (e.g. Solomon Islands), it might be appropriate to combine plantation-type development under state management with village cash cropping so as, again, to secure benefits of scale in production, using perhaps WSTEC in Western Samoa as a model. This could involve individual smallholders, but with joint management rather than the traditional communal organization of production. He suggests that Fiji is already moving along this path, and in this, the largest of the small island states in the Pacific region, there may also be opportunities for agro-based industry to process raw materials.

Such new directions in agriculture would be greatly encouraged by improvements in transport services in small island states. Brookfield argues forcefully that a new marine technology is required to resuscitate transport networks between the developing port cities of the Pacific region and the rest of the world on the one hand, and, on the other, the outlying islands and remote coastal locations. Lower transport costs and improved services within a small island state or between island states with and without a port city will help at least to sustain, if not improve, the incentives for market-oriented production in the outlying areas, and perhaps help to discourage migratory population movement.

Brookfield makes the important point that a marine technology is already available, which, with some adaptations, might suit the need. He proposes a particular type of ship for the purpose, of conventional construction, but with modifications for landing where few facilities exist, and for carrying bulk liquid cargo, freezer goods and passengers. This vessel could in turn carry smaller shallow-draught barges to service those places where this larger vessel could not land. He envisages these plying to and from two main interocean terminals, which could provide the interregional links. Organization of such a network could be achieved regionally through the Pacific Forum Line.

In contrast to these writers who seek to reduce the tyranny of distance for small island states, Wace argues that there are certain inherent advantages of remoteness and isolation that could be exploited. Along conventional lines he favours production of a range of commodities with

Hirshman proposes a system of primary health services to reduce the high per capita costs of the traditional system. The need for curative services is accepted but he sees this being satisfied at a lower, cheaper level than is now current. He places prime emphasis upon preventive medicine and public health, on the grounds that it is cheaper, and would enable a small island state to be more self-reliant. This approach would require decentralization of the system with delivery services at the periphery, in collaboration with the community, and with a small administrative and technical core at the centre. Peripheral staffing would comprise village health workers or urban primary health care workers with short-term training, together with medical assistants, trained nurses and midwives and also sanitation workers for the environmental aspects of the program. Bulk purchase of medicaments and vaccines by groups of island states would reduce unit costs; there could be co-operative training of staff, equipment could be standardized, and buildings, transport and equipment could be designed and chosen with maintenance and cost effectiveness in mind. Trained technicians would be needed for the maintenance work. Also, a modest health statistics information system would assist planning and evaluation. Most importantly, Hirshman sees his restructured and reoriented health care delivery system as being feasible and apposite within the 'social and epidemiological background' of the small island state. Whilst he believes small island states can structure a health delivery system according to its resources, he sees the function of training the health workers as being beyond them. Like Kennedy and Hope, he sees regional answers to this, with a program for basic (and some postgraduate) work in a Technical Co-operation among Developing Countries (TCDC). Fiji's School of Medicine serves as a good illustration of this approach. Specialized training would have to be provided by the developed countries.

Ways of reducing the cost of government are considered by Allan. The inherited burden of 'a vast collection of expensive institutional bureaucratic claptrap', actually designed for other circumstances, he suggests, should be removed. An island state might first determine to its own satisfaction the function and role of government, then call in consultants, determine in cost-benefit terms how to achieve this for least cost in money and manpower, and finally shed the rest. The terms of reference for the consultants might include the country's international roles and concerns. This task of conducting international

relations would also be assisted if means were found for international organizations to improve the supply of information to these small island states at lower costs. The UN might simplify its procedures and use a system of computerized information. Given their numbers small island states might well be able to apply pressure for such changes. May and Tupouniua argue that, with such numbers now in the international community, there should be a reassessment of their role, and of diplomatic practice.

Adequate staffing of bureaucracies, Allan believes, will continue to necessitate some recruitment of expatriates for many years to come, especially in professional fields. Staffing of joint ventures between government and private sector is a particular problem that might in time be tackled multinationally by small island states, on a regional basis. Powles suggests that regional answers might be sought to secure a desirable range of legal services for each island state. Legal needs of each state might be best met by establishing a regional service unit, which could provide training in courses tailored to the realities of island problems, and technical legal expertise on request.

To Cole and the Caribbean Development Bank, the problem of external funding is not a lack of finance but rather the type and terms of it currently available to small island states. Accordingly, Cole recommends membership of the Asian Development Bank for all island states in the Pacific. It would also help if that institution catered more specifically and directly for the needs of the small island state, by establishing and administering a special regional development fund and by opening a branch office in the region, or by establishing a special position in an existing agency. Without actually setting up a regional bank, these steps would bring to the Pacific Ocean states many of the special services such a bank would provide, and which the Caribbean Development Bank actually does provide to its island members.

The CDB recommends further that rigidities in terms of loans should be reduced, that the criterion of per capita income levels should be 'sparingly used' and others introduced, such as size, openness and exposure to risks. Lenders should offer 'float' facilities to minimize debt servicing and operating costs. On their part, small island states should treat debt and thus borrowing more seriously and responsibly, while donors should consider long-term program loans, and treat trade access for the small island states

It is hoped that the definition of the special problems of the small island states in their particular manifestations in this volume and the suggestions made towards some solutions will help to stimulate more thought and action internationally towards more, and more effective, assistance in the future.

Appendix I

Overseas participants at DSC Conference*COOK ISLANDS*

Mr Nihi Vini, Director, Department of Outer Island Affairs, Rarotonga.

FIJI

Mr Akuila Savu, Director of Economic Planning, Central Planning Office.

Mr Rajendra Kumar, Assistant Secretary, Department of Foreign Affairs.

MALDIVES

Mr Mohamed Shareef, Under-secretary of the Ministry of External Affairs.

NEW HEBRIDES

Mr Barak Sope, Director of Cabinet, Ministry of Natural Resources.

Mr Kalpokor Kalsakau, General Manager, Co-operative Federation.

NIUE

Mr Toke Talagi, Development Officer, Niue Development Board.

SEYCHELLES

Mr R.W.J. Grandcourt, Principal Secretary, Ministry of Planning and Development.

SOLOMON ISLANDS

Mr I. Qoloni, Secretary to the Prime Minister.

Mr J. Rofeta, Head of Planning, Office of the Prime Minister.

TOKELAU

Mr Tione Vulu, Director of Administration, Office of Tokelau Affairs.

TONGA

Mr 'O.A. Matoto, Secretary of Finance, Treasury Department.

Bishop P. Finau, Catholic Diocese of Tonga.

TRUST TERRITORIES

Mr Resio S. Moses, Administrator, Department of Community Services, Mariana Islands.

Mr Edwel Santos, Speaker, Ponape State Legislature, Federate States of Micronesia, Ponape.

TUVALU

Mr Tauaasa Taafaki, Financial Secretary, Ministry of Finance.

WESTERN SAMOA

Mr Vito Lui, Acting Secretary, Prime Minister's Department.

Mr Epa Tuioti, Deputy Director, Department of Economic Development.

Appendix II

Conference resolutions

Representatives of the Small Islands of the Pacific and Indian Oceans who met for one week in Canberra commencing on 3 September 1979 under the auspices of the Development Studies Centre of the Australian National University reached the following conclusions:

1. In dealing with issues surrounding the development of small island states the definition of smallness should not be a matter for concern, but rather specific strategies should be developed for overcoming problems relating to such states in view of their particular vulnerability.
2. It is recognized the developing island states have similar fundamental problems but these problems vary in degree from state to state depending on many economic, social, cultural and other factors such as geographic dispersion.
3. It is also recognized that not only does development have as its ultimate objective the well-being of people, but that social and cultural issues as much as economic issues are factors which determine progress in development.
4. The small island states are at different stages of development and it is important that this be recognized by all other countries and international agencies concerned to assist them in their forward development planning.
5. The wide range of papers presented at the conference touched on many issues which are of importance to the small island states. The next step is to review the issues surrounding small island states more specifically. It is therefore proposed that a number of studies be commissioned on the following issues:

- (i) mobilization of finances
- (ii) diversification of earnings of foreign exchange
- (iii) employment creation and migration
- (iv) administration
- (v) communications
- (vi) viability of national economies of small island states.

Representatives proposed the establishment of an 'Association of Small Island States' (ASIS) within which they could examine each others' problems and share experiences in the interest of problem solving, not necessarily those on a major scale, but those which are common to the island states.

The representatives considered that the Canberra Conference should be regarded as the first of a series concerned with the identification and analysis of specific development problems of small island states. It was recognized that political considerations played a large part in the solution of the problems concerned, but the Conference agreed that, in the first instance, emphasis should be placed on problem-solving.

It was recognized that there is a role for many organizations to collaborate in problem identification and solving but initially a small committee should be established to formulate proposals and to commission the various studies already referred to. This committee should meet as soon as possible, but before February 1980.* The following members were nominated to the committee:

Robert Grandcourt (Seychelles)
Terry Chapman (Niue)
Regio Moses (Trust Territories)
Akuila Savu (Fiji)
Chris Laidlaw (Commonwealth Secretariat)
Rodney Cole (DSC)
Ahmed Ali (USP)
Bernado Vunibobo (Fiji - UN)
Ed Dommen (UNCTAD)

*It has not, to date, been financially possible to arrange such a meeting.

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