Planning the Future
Melanesian cities in 2010

John Connell and John P. Lea
PACIFIC 2010

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Contents

Abbreviations vii
Acknowledgments vii

A call to action 1
1 Urban management in a regional context 16
2 Population and urbanisation 25
3 Urban primacy and regional development 37
4 Urban economy and society 49
5 Urban management and planning 65
6 Against the city 81
7 Land policy 91
8 Housing 103
9 Water supply, sanitation and other services 134

References 155

Tables
1 Populations of Melanesia 26
2 Urban centres in Fiji, 1976 and 1986 38
3 Urban centres in Papua New Guinea, 1980 and 1990 39
4 Urban centres in Vanuatu, 1979 and 1989 40
5 Urban centres in Solomon Islands, 1976 and 1986 41
6 Agencies involved with urban infrastructure and services in Papua New Guinea 70
7 Government housing programs in Papua New Guinea 108

Map
Urban centres in Melanesia Frontispiece
John Connell is Associate Professor in the Department of Geography, University of Sydney. He first began research in the South Pacific in 1974 when he worked with the Siwai people on Bougainville. From 1981 to 1983 he was Director of the South Pacific Commission/International Labour Office (SPC/ILO) project ‘Migration, employment and development in the South Pacific’. Among his publications are a series of SPC/ILO country reports, Migration, Employment and Development in the South Pacific, dealing with Papua New Guinea (1983), Solomon Islands (1983), Fiji (1985), and Vanuatu (1985), and a Pacific Research Monograph published by the National Centre for Development Studies, Migration and Development in the South Pacific. Since then he has continued to produce prodigiously, writing on the South Pacific and islander populations’ development and geography.

John P. Lea is Director of the Ian Buchan Fell Research Centre in the Faculty of Architecture at the University of Sydney and teaches in the Department of Urban and Regional Planning. He has been involved with development studies since 1969, working in Africa, Asia and the Pacific. In recent years he has been regional planning adviser to the Central Planning Department of the Kingdom of Tonga and to the Regional Council of the Torres Strait. Among his publications are: Housing in Third World Countries (Macmillan 1979); Cities in Conflict (World Bank 1985); Yellowcake and Crocodiles (Allen and Unwin 1986); and Tourism and Development in the Third World (Routledge 1988).

Editorial note

This monograph, Planning the future: Melanesian cities in 2010, is one in a series which has been commissioned as part of the National Centre for Development Studies project Pacific 2010. As with associated publications, it seeks to highlight the consequences of failing to recognise and plan for the effects of population growth in the island states of the South Pacific over the next two decades.

The challenge of planning for the long-term needs of Pacific states is directed not only to the island leaders but also to those in the metropolitan countries responsible for the design and delivery of all forms of overseas development assistance.

The objective of Pacific 2010, and the publications which it has initiated, is to present in a clear, focused manner some of the issues which are believed to be of importance to the region’s future.
PLANNING THE FUTURE

Abbreviations

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<tr>
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<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
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<tr>
<td>DLPP</td>
<td>Department of Lands and Physical Planning (Papua New Guinea)</td>
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<td>DFP</td>
<td>Department of Finance and Planning (Papua New Guinea)</td>
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<td>HFC</td>
<td>Home Finance Corporation (Solomon Islands)</td>
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<td>IUIDP</td>
<td>Integrated urban infrastructure development programming</td>
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<td>MTWU</td>
<td>Ministry of Transport, Works and Utilities (Solomon Islands)</td>
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<td>NCD</td>
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<td>NGO</td>
<td>Non-government organisation</td>
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<td>NLDC</td>
<td>Native Land Development Corporation (Fiji)</td>
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<td>THA</td>
<td>Traditional Housing Area (Solomon Islands)</td>
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<td>UNDP</td>
<td>United Nations Development Programme</td>
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<td>VULCAN</td>
<td>Vila Urban Land Corporation</td>
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Acknowledgments

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In Melanesia urban heritage is being made on the run. A distinctive form of urbanisation has appeared, based overwhelmingly on the rights or non-rights to customary land of different groups of urban residents. Cities are characterised by rapidly growing uncontrolled areas of peri-urban customary land, often on the fringes, and pockets of traditional villages now swallowed up by the expanding town. Modern offices, new tourist establishments and the expensive dwellings of the élite (still largely expatriate in most of the region) co-exist with the low-income Melanesian suburbs and place huge demands on the poorly developed network of infrastructure services. This complex and highly differentiated urban mosaic is rarely under the jurisdiction of a single municipal authority or under overall control by planning legislation. It is the theatre of operations for a host of national government agencies, non-government organisations and commercial enterprises. Sustained maintenance of urban services—the kind of good municipal housekeeping taken for granted in nearby Australia and New Zealand—still appears an unrealistic dream. Melanesian urban affairs are usually viewed from outside the region as lacking financial resources and set in an environment of poor or non-existent coordination (Connell and Lea 1993). Inside the region the disappointments of inadequate and insufficient planning and service provision are felt primarily by the urban poor. Hence inequality within the towns and cities has tended to increase.

"Coordination of urban management policies is conspicuous by its absence"
It is already apparent that the form and extent of urbanisation has contributed to problems in Melanesia. In some respects these problems have emerged following disappointments with rural development, although until recently the satisfactory incomes and living standards achieved by many in rural areas has slowed the pace of urbanisation. Since the mid-1980s, declining commodity prices and changing expectations alongside continued high rates of population increase have led to faster urbanisation. More rapid growth of cities, with increasing pressure for services and employment, can be expected to put a strain upon national resources into the twenty-first century. Urbanisation is likely to focus increasingly on a small number of cities: the capitals in the four countries studied, Fiji, Papua New Guinea, Solomon Islands and Vanuatu, as well as Lautoka/Nadi in Fiji, and Lae in Papua New Guinea.

The need for planning

Growth in Melanesian cities comes from two main sources: relatively high rates of population growth, and concentration in cities. In policy terms the former suggests measures should be introduced to strengthen population control whereas the latter points towards decentralisation and improvements in rural development (Slater 1986). To these should be added a third focus for urban policy: measures to adapt and strengthen municipal government and the institutions governing the delivery of urban services. In a very real sense it is difficult to debate improvement in urban policy when the institutions charged with implementation are in no condition to carry them out. This situation is leading governments throughout Melanesia to reconsider the role of the public sector itself in urban management.

The steady deterioration during the 1980s of the quality of life in cities in developing countries, and hard economic times, have led governments of both Right and Left political persuasions to similar conclusions. The Left acknowledges that public expenditure must be curtailed and the Right sees less government interference and privatisation as a welcome solution.

My pessimistic prediction is that by about 1995, government regulations will have been cut back a great deal and people will
have been left even more to their own devices. No doubt this will have brought some benefits, especially for the affluent minority who can afford to pay for quality services. But the majority will have discovered how exploitative most illegal subdividers are, about the dangerous state in which most private companies run their buses, and how few private entrepreneurs are prepared to provide services to the unprofitable poor (Gilbert 1992:436).

In Melanesia attempts are already being made to divest government responsibilities for some essential services. Whether this indicates an admission of defeat in the face of a mounting crisis and sheer bureaucratic inertia or a belief that some services cannot be managed adequately by government is not clear, but the effects may be far-reaching. Although there have been attempts to formulate coherent urban policies in each of the Melanesian countries, present urban management policies generally consist of piecemeal plans and projects in particular towns. Coordination is conspicuous by its absence. This is a direct reflection of the condition of urban government across the region and is unlikely to change until this more fundamental problem is addressed. What was said almost 20 years ago about planning for urbanisation in developing countries in general is still strikingly true of Melanesia.

What characterises most of the planning efforts in the third world is the absence of a will to plan effectively. Most urbanisation policy is unconscious, partial, uncoordinated and negative. It is unconscious in the sense that those who effect it are largely unaware of its proportions and features. It is partial in that few points at which governments might act to manage urbanisation and affect its course and direction are in fact utilised. It is uncoordinated in that national planning tends to be economic and urban planning tends to be physical and disjunction often produces competing policies. It is negative in that the ideological perspective of the planners lead them to try to divert, retard or stop urban growth and in particular to inhibit the expansion of metropolitan and primate cities (Berry 1976).

In Melanesia, and especially in Papua New Guinea, the disjuncture between economic and physical planning has not only increased but become formalised. Current policies are aimed largely at economic growth, rather than more broadly based economic development, and are unlikely to reduce problems associated with equity and the distribution of urban (and other) services. Even in small towns urban
service provision is fragmented between numerous agencies and activities. Fragmentation, tension between landowners and migrants in the face of land shortages, growing urban unemployment, bureaucratic ineptitude and even political corruption—hastening privatisation—have all contributed to disarray and division. Most aspects of infrastructure provision can only be addressed with the support of the urban population at large. History, geography, culture and the gulf between traditional and modern have made the creation of this community of interest in Melanesia very difficult indeed (Connell and Lea 1993).

The way ahead

What is needed is a consistent and long-term program of urban improvement which will allow small nations like the four countries discussed in this study to achieve coordinated action leading to real improvement for all townspeople. The UNDP (1991:45) has promoted five key strategies for urban development in the 1990s, all of which are relevant in Melanesia today

- alleviate urban poverty by promoting income-generation activities and transforming the role of the informal sector
- promote enabling and participatory strategies for the provision of urban infrastructure and affordable shelter
- promote the protection and regeneration of the urban physical environment, especially in low-income settlements
- improve urban management, including expansion of local governments' revenue-raising capacity, and decentralise authority and responsibility for urban development from central government agencies and ministries to local government and non-government organisations
- to achieve the above, draw on the full complement of human energy in cities. This means wider recognition of the role of women and full government collaboration with the private and voluntary organisations.

None of these issues are particularly new but all of them require simultaneous attention if permanent improvements are to be achieved. It is useful to consider what could be done towards each of these strategies, using examples drawn from countries in the Melanesian region.
Alleviating urban poverty

Melanesian countries have been judged in the past to be among the most fortunate of all the small dependent states in the developing world because their subsistence affluence appeared to safeguard rural people, and even most of those living on the edge of town, from the extreme effects of income poverty. This safety valve no longer exists in the densely settled parts of Port Moresby and Suva and nor do traditional coping mechanisms. In Port Moresby, particularly, the environment is such that it is difficult for settlers to produce more than a small proportion of their food.

But as Connell and Curtain (1982) have observed, the informal sector in Melanesia occupies a less important place in the urban economy than in many other developing countries and offers correspondingly less opportunity for the creation of new employment opportunities, even if much economic activity is clandestine (Bryant 1992). The reasons for limited informal sector activity lie in the lack of traditional urbanisation, the relative affluence, the post-colonial regime, the controlled public service or company origins of the towns, and the shortage of skills that are appropriate to informal sector manufacturing.

Circumstances in urban Fiji are typical of conditions in the region. Responses to poverty are shared among government departments, non-government organisations, private individuals, the poor themselves and the trade unions. Barr (1990) reveals that national development plans, while targeting poverty and basic needs, have tended to rely on national economic growth as a means of alleviating these problems. But economic growth does not ensure distributional equity. In some cases religious organisations have taken direct action in the urban areas: the acquisition of most of the Jittu Estate is one example (Chapter 8:132). Such intervention was taken in recognition that we are helping people who are struggling to make it in life. But poverty in Fiji won't just be eliminated by giving them some money. The whole social system should be reviewed. Part of the squatter problem in the urban areas has to do with the need for a piece of land to live on. Squatters live in clusters between Suva and Nausori, such as near the bridge at Rewa Dairy. It’s pathetic to look at but that’s where we are (Dr Finau Tu’uholoaki in Review (Suva), December 1992:13).
The creation of better urban employment opportunities is one obvious way of ameliorating poverty. Although the establishment of export-oriented manufacturing has some serious disbenefits, which may already be evident in Fiji, it seems likely that opportunities exist throughout the region for enterprises like the labour-intensive clothing and textile factories which are now being established in Suva. They offer wage employment to women in particular but depend on levels of education and skilling which are in short supply all over the region. Thus education and training are probably more important in meeting urban employment needs in Melanesia than attempts to reorganise the relatively small informal sector. It is apparent that many of the problems of urban service provision in the cities are a function of urban poverty and this, in turn, is a result of limited employment opportunities. There is however more to the removal or reduction of urban poverty than the provision of employment and urban services.

The conventional wisdom now is that broader socio-economic policies such as reducing unnecessary and strenuous work (e.g. carting water for long distances), employment creation schemes, reducing unwanted pregnancies and parasitic diseases and providing universal free education (both formal and non-formal) as well as access to medical care, will go much further in reducing poverty in the long-term than merely ‘patching up’ as problems arise (Bryant 1992:101).

All this will be difficult to achieve in situations where grandiose highway schemes are perceived to be more attractive than water and sewerage schemes, especially in provincial towns (in spite of the fact that small towns like Kainantu and Maprik have effectively closed down for periods) and where private gains from some forms of development may be considerable. Urban management is also much more than merely constructing such facilities as roads, houses and water pipes; it is also a question of ensuring that adequate services are available and accessible throughout the city. This requires not just land use plans but the political will to direct public, and stimulate private, resources to areas of deprivation.

Providing urban infrastructure and affordable housing

The problems of urban service provision raised in this study confirm that there has been a general run-down in the capacity of urban infrastructure to cope with the needs of a rapidly growing population in all sectors except that of urban transport.
(although even here the provision of roads lags behind the largely informal and privatised transport of people). The UNDP (1991) solution to this growing infrastructure deficit is to encourage community self-help based on secure land tenure arrangements for urban squatters. In the Melanesian capital cities (with the partial exception of Suva) adequate land tenure arrangements do not yet exist for many. Melanesian squatters are as capable as any of upgrading their living environment and ensuring their survival, as Norwood (1979) has demonstrated in Port Moresby and Bryant (1990) has shown in Suva. The problem lies more in overcoming difficulties arising out of traditional attitudes towards land and the weak institutional environment, both of which have prevented an adequate supply of residential land becoming available for development.

The challenge is how best to resolve the urban land question when it is widely accepted that it is not really a technical problem but largely a political and institutional one. Its resolution rests on finding and putting into action effective arrangements for helping the poor to gain access to land (Angel et al. 1983:3). This involves

- changing attitudes to land derived from historical, cultural, religious, and legal circumstances
- clarifying the structure, functions, and roles of government institutions regarding the administration of land development (Fiji has much more experience than the other countries in this regard)
- improving procedures for land transfer, for permission needed before developing land, and for public acquisition
- resolving the role of the private sector in land development administration

There are three possible approaches to tackling the problem: muddling through, incremental change, and fundamental reform. In Melanesia there is, as yet, no example of the last of these approaches but plenty of experience with the first. If a decision is made to upgrade land development administration it will be necessary to take into account the need for a planning and management system which is ‘equitable, flexible, environmentally conscious, participative and easily manageable, simple to understand and use, and administratively fair’ (McAuslan 1992). Because the problem is so common in the
developing world there is plenty of comparative experience to assist Melanesian governments in the incremental changes which will be required. Whether governments are able or willing to make these changes remains to be seen.

Protecting and regenerating the urban physical environment

Some attention is devoted in this book to the environmental aspects of water supply and waste disposal in Melanesian towns. Adequate protection of the physical environment also requires education in the public responsibilities involved and the adoption of planning and management controls of a kind that are likely to be respected by the urban population. A continuing problem in Melanesia is that planning (urban or environmental) is not a traditional activity. Grand schemes and lavish public buildings have tended to prevail over appropriate programs and their management. It is important to keep in mind the characteristics of good planning.

- Planning is a long-term process requiring sustained policy.
- Planning is a highly political process but is often isolated as a technical exercise. Environmental planning and other forms of land use planning remove control over land development from a local community to central government, thus downgrading the basis upon which power is exercised locally. On the other hand allowing the allocation of land to be primarily politically determined—without reference to land use plans (conspicuous by their absence in Melanesia)—is highly likely to ensure some degree of corruption in the system.
- Planning demands some measure of 'due process', that is, the means to ensure that adopted policy is executed. It is difficult to expect people to observe planning controls unless they are involved in a participatory way in setting them up.
- Planning operates at various spatial levels from the nation to the local area and the popular constituency for these levels is not the same. The broader the scale involved and the more ubiquitous the issues, the more abstract planning becomes and the more difficult it is to persuade local people of its value and importance. This is a particular difficulty for environmental planning which seeks to alter traditional and other practices (Connell and Lea 1992:306–8).

A call to action
There is plenty of evidence to suggest that urban local government in Melanesia is not robust enough to cope with the pressures of rapid urbanisation. One important reason for this is the difficulty in the capital cities of having two viable and popularly elected governments (municipal and central) located in the same place. This is common in newly independent countries and has led to great difficulties in fostering municipal government (Lea 1980). Competent politicians and administrators tend to move on to higher things. Democracy becomes a sham without popular participation in the institutions of government. Despite the regional and rural development rhetoric encouraging decentralisation and devolution, the reality of economic policy and practice in most developing countries over the past two decades (less so in the 1990s) has encouraged centralisation of government services and urban economic activities (Lea and Wu 1980) and the development of urban economic activities (including manufacturing and commerce). Such policies (or the lack of them) have encouraged urbanisation, but the inability to manage it or provide adequate services has led to the deterioration of urban infrastructure and the emergence of social problems (including unemployment, crime and violence). These and other concerns surrounding the place of local government in development are discussed in the special issue of the journal Environment and Urbanization (1991:3(1)) and in many reviews of decentralisation policies in developing countries (cf. Wallis 1991).

Whether or not economic policies will continue to favour urban development at the expense of rural development, urbanisation must be managed more efficiently. An unplanned city has no advantages over a planned city.

The fragmentary evidence existing from the operation of garbage disposal services, and to a lesser extent from sewage disposal, suggests that privatisation has been largely successful. Similarly, no towns and cities in Papua New Guinea, Solomon Islands and Vanuatu have a public transport system. Urban passenger transport is provided by private buses that are regulated through licensing, fare limitations and route restrictions. These are extremely efficient and suggest that there are substantial benefits from privatisation, alongside some degree of regulation. The national planning context
throughout Melanesia favours expansion of the private sector and the privatisation of government services, with a shift towards user pays principles and policies. These overall directions provide a context for the management of urbanisation and the provision of urban services that might better meet the needs of both economic growth and equity than the present situation, at least in the largest cities. In the smaller towns the situation is rather different since, because of few economies of scale, locally generated revenue from urban service provision is unlikely to generate enough revenue to allow proper maintenance and development unless prohibitive rates are charged. Subsidies will be essential—otherwise the smaller towns would deteriorate, which would increase the long-term costs to national development and exacerbate the problems of urbanisation in the larger towns.

Opposition to public funding for urban services is on two grounds: first, that providing urban services merely satisfies the needs of itinerant migrants; and second, that providing urban services is likely to stimulate unmanageable rural–urban migration and discourage rural development. In some cases the second reason appears merely justification for the first. However, most urban residents, even the unemployed and underemployed, contribute to the growth of the urban economy and are entitled to reasonable and equitable provision of services. Moreover, the under-provision of services (including planning and management) ultimately leads to disorganised and unplanned towns with resulting inefficiencies and additional costs.

More direct public intervention in urban management is appropriate; this may quite easily be combined with privatisation and user pays principles. At the heart of indecision and uncertainty over urban and national policy in Melanesia is opposition to urbanisation and support for rural development, even though few policies actually encourage rural development. One form this takes is bias in urban expenditure in favour of the well-off, for example towards proposals for massive new motorways in Port Moresby (now cancelled) and Honiara, rather than towards the basic needs of squatter settlements. A ‘services squeeze’ has resulted, with a larger and larger proportion of the urban population receiving a smaller and smaller share of services. In Papua New Guinea, from the time of independence
onwards, successive governments officially favoured rural development. The focus of policy
was to deter inflow of rural–urban drift into urban centres, where the infrastructure services were already deteriorating. The budget expenditure on urban services, therefore, received a low priority in favour of rural sector projects (Aruga 1992:2–3).

There are limits to the extent to which privatisation should move beyond basic profitability in particular areas.

The operation of any basic service to the community cannot be regarded as an opportunity to make profit, especially as commodities such as water are basic to life. Should profit be made as the size of the operation grows and the cost of production is spread over more consumers, such profit should be set aside to finance future staged upgrades and maintenance of the existing system (Mount Hagen Town Authority 1991:30).

There is no simple way of deciding which services are better provided by the public or private sectors, but two questions are worth asking.

- Will the service or function to be performed by the private sector result in lower real costs and better customer outcomes than the public sector?
- Will equity considerations be better satisfied through market forces and unaffected by the potential for market failure?

Some services, such as health and transport, are provided by both the public and private sectors. In Melanesia the traditional sector also provides some services, including provision of building materials and the care of old people, though its role has rapidly declined in recent years. The issue is also complicated by the variable extent of popular participation in the various bodies that regulate and administer urban service provision.

There is clearly a limit to how much users are able to pay. In Port Moresby 7 per cent of households contain no wage earners and a third of income-earners receive around or below the average urban wage. The city is ‘a town of relatively poor people [and] the poorest can afford to pay for nothing except food’ (Morauta et al. 1986:13, 15).

Certain services must therefore be provided by national and/or urban authorities but such public provision has not always been successful in Melanesia. Indeed, in several circumstances discussed
in this book (and also in services such as transport and open spaces),
the quality of provision has been far below demands and is
deteriorating and/or non-existent. In other areas too, public
provision has not been very successful, but this may be because it has
scarcely been tried.

Tapping into human energy in the cities

Ultimately it is in the delivery of urban services
where key improvements need to be made. All
the Melanesian capital cities discussed in this
book suffer from weak urban local government. The city of Suva is
still administered by a 20-person council appointed annually under
the terms of the *Local Government Act (Amendment) (No. 1) Decree
1988*. This arrangement disenfranchises the urban population,
making it difficult for central government to win active support from
residents. Urban planning, and paying now for anticipated service
needs in the future, is seen as something of a luxury, if not an
impossibility, when the current backlog of basic improvements is so
large and when urban residence itself may be tenuous. Urban
investments made by colonial governments were not restricted to the
ability of local communities to pay for facilities, nor were they
required to comply with local customary rights over land use.
Although the scale of urban development in Melanesia is small by
world standards, the problems faced by the municipal governments
of Port Moresby, Honiara, Port Vila and Suva are as severe as
anywhere.

There is no doubt that integrated urban planning and management—
in the context of physical plans and democratic participation—is the
most secure route to successful urbanisation. Yet few countries
(including industrial countries) have successfully achieved this
integration, and the Melanesian states (with the partial exception of
Fiji) have a very long way to go before they can achieve it. There are
few areas of urban services that are adequately planned and
managed. The possible exception is transport, where public
involvement is largely reduced to regulation.

12 A call to action
The need for improved coordination and integration is widely recognised.

I have worked as a city manager and I noticed that people tend to work in isolation—they are not working together. The building board works by itself, the land and transport board works by itself, town planning board works by itself, NCDC works by itself and Land Department works by itself. I think this is a problem we are having now. I think that the time has come for all of us to work together. We should be liaising to know how best we can come up with a solution. And I think that too many times people want to work in isolation because they want to be big men. Time for big men is all over. Let’s start getting back and helping our people.


Without integration and coordination the likelihood of mismanagement increases. Symptomatic of this is the general decline of site and service housing schemes. Services such as water supply generally reach a smaller percentage of the urban population than they did a decade ago and even fewer pay for the service. Consequently infrastructure services continue to decay. In Port Moresby there is minimal detection of illegal water and power connections and leakages, inefficient billing and poor revenue collection systems. In Suva rental arrears in public housing are considerable (Bryant 1992). In sectors other than transport, service provision is continuing to fall behind demand; yet as population growth rates remain at a high level, and as urban populations become more permanent and expectations are continuously revised upwards, demand continues to grow. Consequently the first priority in urban management is good housekeeping (in terms of engineering, planning and financial operations) rather than grandiose schemes of capital investment,
often funded by overseas donors, with little relevance to need, recurrent costs and the technical problems of maintenance that are a drain on interest payments and are rarely integrated into anything else.

There have been many urban plans, especially for Port Moresby, but in almost all Melanesian towns and cities there is still no adequate physical plan. This is in some cases understandable given problems with urban land tenure, but the sheer pace of urban growth now demands action. Existing reports need to be dusted off, consulted and, where appropriate, implemented. Otherwise there is no basis on which to organise the provision of infrastructure and ineffective piecemeal planning will continue at considerable cost to the public and national economies.

The Asian Development Bank estimated that in Papua New Guinea the limited availability of technical and managerial skills in water engineering and urban planning would mean that at least 30 additional professional physical and town planners would be needed by the end of the century (ADB 1992:47). Training both inside and outside Melanesia is clearly an important priority. Often forgotten is the need for municipal councillors to have training too, in order to cope with the many and varied responsibilities of big-city government. Without the development of human resources, including both skilled staff and a more sophisticated public, urban mismanagement will continue.

Exactly 20 years ago, the then Chief Minister of Papua New Guinea, Michael Somare (1973:2), asked

Do we really want to become a country of big cities? In all the 700 languages of our country we have never needed words for air pollution, for slum or for unemployment. Do we wish to build the kind of country that needs these words?

Not only are all these words now necessary—and Somare might have added poverty to that list—but they are becoming increasingly useful to describe conditions throughout Melanesia. Without combining economic and physical planning, and without achieving sustained economic growth alongside basic needs provision, countries that need these words have emerged. Beyond this the uncontrolled garbage found on roadsides and in urban waterways,
the urban crime and violence, leaking water mains, traffic jams, more intrusive squatter settlements, and even tadpoles in the water pipes, are all symbols and substance of failures in urban planning and evidence of poor urban management. Unless an elusive political will enables radical proposals to be formulated and implemented within the next few years, Melanesia, at the end of this century, will remain deficient in many basic services—including safe water, sanitation and housing—and those who will most suffer from this deficit will be the urban poor.

Soon after Somare expressed his aspirations, Nigel Oram observed in the context of Port Moresby that

in conditions of rapid change there is no safety in standing still. Successful solutions may require a surgical operation. The problem, as the Somare government is now discovering, is to translate policies into action (1976:259).

Contemporary Melanesia needs both urban policies and action well before the end of the present millennium.

"In almost all Melanesian towns and cities there is still no adequate physical plan—the sheer pace of urban growth now demands action"
Throughout the Pacific everything points to urban conditions worsening before the end of the century. Difficulties in providing adequate urban infrastructure and services have long been of critical concern in large cities in the developing world (Roth 1987; Wegelin 1990; Gilbert 1992) and the subject of sustained attention by national governments and international agencies. The relatively small size of South Pacific urban centres has until now delayed a similarly active response in this region. But pressures are mounting. The rapid expansion of places like Port Moresby and Suva, in particular, is demanding that municipal governments respond without further delay to maintenance problems and unsatisfied demands.

The Melanesian states and towns are larger than elsewhere in the island Pacific but problems of urbanisation are not solely located there. Although overall population growth in the Polynesian states is likely to be far less than in Melanesia (because of the extent of emigration), the pressure on urban services is as great in cities like Apia (Western Samoa) and Nuku'alofa (Tonga) where problems of water supply, sanitation, waste disposal and the supply of low-cost housing are already of concern. In Micronesia too, population growth rates are generally high, notably in the Marshall Islands and
Kiribati where the small urban centres of Majuro, Ebeye and Tarawa have experienced acute problems in the past decade. The circumstances of Noumea, the third largest city in Melanesia after Port Moresby and Suva, and capital of the French territory of New Caledonia, are not considered here because of the very different context under which that city is administered and financed.

There are a number of reasons for the increasing importance of issues associated with urbanisation.

- **Rising populations**
  The first book in this series, *Pacific 2010: challenging the future* (Cole 1993) projected that population growth in the Melanesian states, particularly in Solomon Islands and Vanuatu (and less obviously in Fiji), is likely to remain at a high level until some time into the next century.

- **Rural–urban migration**
  For some years low commodity prices have reduced the economic incentives for many to remain in the rural sector. Rural–urban migration for this and other reasons has contributed significantly to urbanisation.

- **Economic development**
  Most Melanesian states (especially Fiji) are moving towards economic policies that encourage industrialisation (Fiji Central Planning Office 1991:65–9). Such policies, if successful, will place increased pressures on urban infrastructure.

- **Maintenance problems**
  In most places a substantial proportion of urban infrastructure was constructed in colonial times for much smaller towns and cities. In post-colonial times some of this has fallen into disrepair, as problems of recurrent funding, maintenance and the delivery of urban services have made the necessary ‘good housekeeping’ and extension of the existing system difficult.

- **Rising expectations**
  Standards that have proved adequate in the past are less likely to be adequate in the future as expectations increase and urban residence becomes more accepted as a normal situation.

For these and other reasons urban problems are already becoming more apparent throughout Melanesia and are likely to worsen in the future.
The adequate provision of basic urban services is an essential prerequisite to sustained ‘economic, physical and cultural development in an accelerated and equitable manner’ (Dimitriou 1991:196). But how should urban problems best be solved? The principal purpose of this book is to identify the factors that have contributed to urban social and economic problems in Melanesia, and to assess (through locally commissioned reports and media comment where possible) the extent to which responses in delivering urban services have been appropriate and adequate. The aim is thus to provide a comparative perspective on the region and draw comparisons with policies that have been attempted elsewhere. The key subsectors of urban infrastructure examined here are those commonly identified in comparative policy studies, namely, water supply, sanitation, solid waste disposal and housing. Integrally associated with these services is land management and the status of physical planning.

Although the focus is on urban services, it is first necessary to explore the key background issues of national demography, urbanisation, the condition of urban economy and society, urban management and planning, the negative factors associated with urban growth, and land policy before dealing with the specifics of housing, water supply, sanitation and some of the other services. Two important urban services, transport and health, are not examined here (except for health in relation to water supply and sanitation) as they are the subject of a considerable specialist literature. While every effort has been made to balance coverage of the four countries, constraints on time available for fieldwork in Fiji, in particular, have limited the primary focus to the capital city of Suva. In all four countries almost all the available literature on urbanisation focuses on the capital cities.

The condition of urban infrastructure and national policies towards its provision in Fiji differ in several respects from the situation in the three other states. The pressures of contemporary urbanisation in Fiji arrived 20 years before anywhere else in the region. This is shown by a more sophisticated policy environment in areas such as development of customary land and by the presence of the best water supply and sewage facilities.

The present condition of cities in Melanesia is a result of their historical evolution and the special mix of social, economic and physical
features found in the region. The best means of overcoming current difficulties in urban services delivery lie in the adoption of policies which are sensitive to these features.

The changeover from colonial government to independent statehood in Melanesia in the 1960s and 1970s weakened the inherited control mechanisms that governed urban development. Western urban planning systems are both prescriptive and proscriptive and depend ultimately on popular acceptance of government intervention in everyday life. Such interference is tolerated because local government is usually reasonably responsive to local wishes and its powers are clearly defined. Urban management is one facet of a complete system of local governance and alterations to some of its parts must affect the whole.

Rarely have municipal governments in the primate cities of small developing countries enjoyed the preconditions necessary for them to operate effectively as urban managers. They are commonly subjugated by national government located in the same city and make do with scant resources. In some situations there are simply not enough suitable applicants able and willing to stand for election given the alternative opportunities open to such people in the public and private sectors and national government. In Melanesia the change in municipal affairs was obvious soon after independence. Less attention was paid to land use zonings, building by-laws, and maintenance and provision for major urban infrastructure—roads, water supplies and sewerage treatment. This was not due entirely to either changed priorities or even a shortage of funds for urban investment. Rather, it was an outcome of ignoring rules created to manage urban affairs in a different context (Connell and Lea 1993), while failing to create new rules appropriate to changing conditions.

The general lack of an integrated context for physical planning has also created difficulties for the provision of urban services. This has resulted in the planning and provision of urban services by different organisations with different agendas, principles and policies and without real coordination or cooperation between them. Several countries, especially in Asia, attempted in the past decade to introduce integrated urban infrastructure development programming (IUIDP) to systematically tackle the problems involved. The general concepts underlying the application of IUIDP procedures are
• sustained economic productivity
• basic needs fulfilment
• integration of plans, programs and projects
• decentralisation of decision making.

Even with all the resources of national programs supported by international agencies such as the World Bank, the institutional complexities involved in service delivery have limited the introduction of IUIDP in the first instance to areas like water supply and housing. Nevertheless it is readily apparent that better coordination of urban service provision is essential in Melanesia as elsewhere.

Orderly investment programming for urban services delivery in South Pacific capital cities rests on the clear identification of the infrastructure priorities in the region and the manner in which they are presently provided. While there are costs involved in establishing an appropriate framework for adequate planning and management, these are likely to be much less than those associated with rapid urban growth in an unplanned context, because lack of planning often results in persistent recourse to costly ad hoc measures. This study does not aim to provide ready answers to current difficulties, but to set out issues and options in a form suitable for discussion by those most involved. The objective is to highlight planning needs by making a complex and extensive array of data more accessible and intelligible to local professionals and community leaders.

The colonial heritage of Melanesian cities

The most distinctive characteristic of urbanisation in Melanesia is its recency. There is no evidence of urban development in pre-colonial times, despite some evidence of state formation and the presence of extensive trading networks. The consequence of this is that a relatively small proportion of the current population lives in cities. Furthermore this urban population is not growing as rapidly as in some other parts of the developing world, though it is everywhere growing at a faster rate than that of the population as a whole. Pacific 2010: challenging the future forecast that the economically active populations of Melanesia would increase between 1991 and 2011 by 43 per cent in Fiji, 55 per cent in Papua New Guinea, 95 per cent in

20 Regional urban management
Vanuatu, and 102 per cent in Solomon Islands (Cole 1993:29). It is noteworthy that even the presence of growth rates of this order (and associated urban rates which can mean the doubling of a primate city population in under 10 years) still do not secure the Melanesian region a mention in major world reviews of infrastructure provision in developing country cities (see Gilbert 1992). In part this reflects the recency of urbanisation but also illustrates the lack of published comparative urban research in Melanesia.

One consequence of their colonial origin is that until quite recently all Melanesian towns have been located on the coast and have functioned as trading and administrative centres. The capital cities in all four countries remain on the coast. In the pre-war era, gold-mining towns were established inland—Wau and Bulolo in Papua New Guinea and Vatukoula in Fiji—but it was not until the post-war years that less narrowly specialised inland towns emerged. The coastal peripheral location of towns emphasised the dominance of external trade links: the towns themselves, especially Port Moresby, were poorly integrated into the nearby regions.

The earliest townships in Melanesia, the beach communities of the nineteenth century and the administrative centres of the twentieth century, were expatriate creations and expatriate centres.

The urban area frequently developed a dual form. A segment was laid out for expatriates, on a regular grid of land holdings and streets, with buildings little different from those of the metropolitan country. In many respects the development of the expatriate segment was a faithful model of the pattern of urban areas in the western world though industry was usually lacking...The nearby indigenous villages coexisted uneasily alongside the expatriate town....The dualism which thus developed was paralleled in administrative policy towards urban areas. The town was administered by expatriates, for expatriates and according to expatriate models. Public health, public order and the maintenance of so-called 'standards' required, it was thought, an element of insulation from the indigenous population (Ward 1973:366–7).

These distinctions were emphasised in different ways throughout Melanesia—by dress codes, restricted access to some public buildings (including hotels), and so on. Elements of urban apartheid were widespread (Connell and Curtain 1982:463–4). In these
circumstances the ideology of an élite urban lifestyle readily became
established. The ideology was emphasised, especially in Papua New
Guinea, by administrative regulations which stayed in force until the
eve of independence. One such regulation stated that ‘a "foreign
Native" [i.e. someone away from his "tribal area"] who does not give
a good account of his means of support to the satisfaction of a Court
when called upon to do so, may be ordered by the Court to return to
administrative permission to leave their villages. The colonial towns
were largely places where Europeans could work, live and enjoy the
social amenities but where Melanesians had only a tenuous
connection, via their workplace. They were expected to live out the
bulk of their lives elsewhere.

Melanesians were not part of the urban world. Until after the Second
World War they were permitted in towns only under employment
contracts, and such contracts were of limited duration; urban
residence had a wholly economic rationale. In the 1920s Port
Moresby residents of Melanesian origin were regulated by curfews;
whistles or bells sounded at 8 am and 9 pm to demarcate periods
when they were allowed in town (Connell and Curtain 1982:462–5).
Workers were almost always housed by their employers; domestic
workers in Papua New Guinea were accommodated in the *boi haus*
that still survives in the grounds of some large houses. Otherwise
from early days the Melanesian and European areas were segregated
and, where there were Chinese traders, these areas were also
separate. In Port Moresby Melanesians and Europeans had their own
hospitals, but the swimming pool was reserved for European use. At
the rural end migrants, whether in town or plantation, were recorded
by patrol officers (*kiaps*) in the village book as ‘absentees’; their true
place was in the village where ‘the social, the racial and the spatial
were embodied in explicit linguistic and conceptual form’ (King
1990:9). Until secondary and tertiary education arrived belatedly in
the post-war years, only rare hospitalisation led to urban visits, and
hospitals were assuredly places in which to die (Connell and Lea
1993).

Port Vila developed into a small and cosmopolitan town with a
population of some 1,000 people during the 1930s, consisting of
European settlers and administrators, Chinese and Japanese artisans
and Vietnamese plantation labourers. In this early period the ni-Vanuatu faced direct controls preventing them from settling in town.

Urban residence was highly segregated with each ethnic group living in specific niches and enclaves. Apart from the ghettoization, the residence of ni-Vanuatu in town during these years was severely regulated by the Colonial administration. Ni-Vanuatu who were not from Efate or were unemployed, could not remain for more than 15 days in Port Vila. After that, they faced deportation to their home island. But even Efatese and employed ni-Vanuatu from other islands faced discrimination in that they were not permitted to remain in town after 9 pm (Haberkorn 1989b:7–8).

The Second World War saw the true beginning of urban development in Vanuatu and the rapid introduction of urban infrastructure in Port Vila and its environs and Luganville in Santo. The war brought thousands of ni-Vanuatu into contact with urban life for the first time. In the post-war period it was the relocation of foreign-born plantation workers to town that preceded similar moves by the ni-Vanuatu population itself as restrictions on urban residence gradually eased. By 1955 there were still only 200 ni-Vanuatu in Port Vila (170 in Santo) but they increased rapidly, by 556 and 802 per cent respectively, between 1955 and 1967 (Haberkorn 1989b:10).

A similar process took place much earlier in Fiji, with Suva becoming a municipality in 1910.

Of the fairly small early urban population of Fiji in 1911, it is interesting that although Europeans comprised the single largest category of urban population, both ethnic Fijians and Indo-Fijians comprised 19 per cent each of the total urban population. The presence of these two ethnic groups is interesting because the early towns were clearly seen by Europeans as places of European settlement only. By the 1930s, significant changes had taken place in the urban population. The Indo-Fijian proportion had almost doubled to 39 per cent, the indigenous Fijian proportion had increased most sluggishly to 23 per cent, and the proportion represented by Europeans had dropped to 14 per cent (Chandra 1990:159–60).

Little now remains of these early divisions and the policies associated with them, though their legacy is apparent in the enormous variation
in the quality of the urban housing stock, the form of residential subdivisions and the low-density layout of Melanesian towns and cities. Over time, and especially since independence, towns have grown much more rapidly. A planned city form has become less evident as informal settlement has become more significant, and the expatriate populations have become minorities.

The two chief influences on urban expansion are population growth and rural-urban migration. In Melanesia neither of these are as significant as in some other developing countries, hence urbanisation has never been particularly rapid. The slow pace of urbanisation up until now has benefited social and economic development, but urbanisation is likely to be much more significant in the years to come, with a concomitant increase in the pressure on, and demand for, urban services. Planning for a larger urban population has lagged behind this reality for several years.
The recency of urbanisation suggests that migration has been the most important factor contributing to urban growth. However natural increase within urban areas has grown in importance, to the extent that it may now be as important as migration in contributing to urban growth. This is almost certainly the case in Fiji and is also likely to be true of some Papua New Guinea towns, although the available data are largely inadequate to assess these assumptions. There are now second and third generation urban residents in Melanesian towns, who are to all intents and purposes permanent urban residents. In recent years there have even been urban burials. In most places a number of villages (such as Hanuabada in Port Moresby) have long been engulfed by urban expansion to the extent that lifestyles in such places are fundamentally urban. As permanency has become more established and expectations have increased, perhaps stimulated by the conspicuous consumption of the elite, so pressure on and for urban services has increased.

Population projections

The extent of future urbanisation is partly a function of natural population increase, both in the towns and cities themselves and in the rural areas of Melanesia, where increased population pressure on resources and new aspirations have stimulated rural–urban migration. As highlighted in *Pacific 2010: challenging the future* (Cole 1993), the rates of population growth in Melanesia, and especially in Vanuatu and Solomon Islands, are currently high: they range from approximately 3.5 per cent in Solomon Islands (1991–95) and 2.9 per cent in Vanuatu (1989–94) to 1.7 per cent in Fiji (1986–96) (Table 1). In
each case they are greater, sometimes considerably so, than the rate of economic growth per capita. Despite low population densities, there is considerable population pressure in localised areas, and some evidence that this is contributing to rural–urban migration.

<table>
<thead>
<tr>
<th>Country</th>
<th>Area ('000 km²)</th>
<th>Population (1989-91 est.)</th>
<th>Annual population growth rate</th>
<th>Population density (persons per km²)</th>
<th>GNP per capita 1990 (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiji</td>
<td>18</td>
<td>778,000</td>
<td>1.7</td>
<td>43</td>
<td>1770</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>462</td>
<td>3,751,000</td>
<td>2.3</td>
<td>8</td>
<td>900</td>
</tr>
<tr>
<td>Solomon Islands</td>
<td>28</td>
<td>331,500</td>
<td>3.5</td>
<td>12</td>
<td>570</td>
</tr>
<tr>
<td>Vanuatu</td>
<td>12</td>
<td>142,630</td>
<td>2.9</td>
<td>12</td>
<td>940</td>
</tr>
</tbody>
</table>

*a Data on population growth rates and GNP per capita vary according to different sources. In the authors' judgment these are the best available estimates.


Sources of population data are not comprehensive in Melanesia. Fiji has abundant and accurate census and related data, but in Papua New Guinea, Solomon Islands and Vanuatu there have been no more than two adequate censuses in each country. Population numbers, let alone projections, are therefore tainted with some degree of uncertainty.

**Papua New Guinea**

Papua New Guinea’s total population grew from just under 2.2 million in the 1966 census to approximately 3.7 million in 1990 (Cole 1993). In the most recent inter-censal decade, 1980–90, the overall population growth rate was probably between 2.2 and 2.3 per cent. Growth rates varied considerably between the provinces; the fast-growing provinces have been the National Capital District and the coastal provinces of West New Britain and the North Solomons (until 1989). In both coastal provinces there was significant immigration. Between 1980 and 1990 there was also substantial growth in both Enga and Western Provinces, where new mines were established, and also in
East New Britain. The more densely populated highland provinces, especially Chimbu (Simbu), generally had lower growth rates until the 1980–90 period and emigration played some part in this. Apart from Central Province, the mainland coastal provinces have also experienced relatively slow growth.

Urbanisation has accompanied population growth in Papua New Guinea, reflecting changes in the structure of administration and economic development. In 1966 the total urban population was barely more than 100,000, prompting concern that this was inadequate for future national development. By 1971 this figure had grown to 232,000 and, in the decade that included independence, grew to 303,300 in 1980. By that time it represented 10 per cent of the total population. In the following decade the urban population continued to grow, reaching around 607,800 in 1990; this total excluded the North Solomons towns, where there had been around 25,000 people in 1988 but which had become almost deserted by 1992. Consequently the urban population had grown to only about 16 per cent of the total population at the start of the 1990s. There were no longer, however, any concerns that this rate of urbanisation was inadequate, as there had been on the eve of independence.

One of the most significant characteristics of the Papua New Guinea population is the enormous variation in population density between regions. More than a third of the population is concentrated in the five highlands provinces (Enga, Southern, Western Highlands, Chimbu and Eastern) with densities in some localised areas of much more than 100 people per square kilometre. By contrast the population density of Western Province is barely one person per square kilometre and the overall Papua New Guinea population density is just eight persons per square kilometre. Nevertheless Papua New Guinea experiences in some places problems associated with high population densities that are more apparent in densely populated Pacific rim nations.

The slowly increasing population growth rate has resulted in a youthful population, with 43 per cent being aged under 15 in 1980, an age distribution that is similar to that of other Melanesian states. In 1966 the overall fertility rate was estimated at 40 and the mortality rate at 18; since then the former has fallen to an estimated 35 (although there has been little sign of any decline between 1980 and
1990), while the mortality rate has fallen to around 12. The total fertility rate of Papua New Guinea, the number of children per woman, has barely changed between 1966 and 1980, declining from about 6.2 in 1966 to 5.3 in 1980; it was projected to decline to 5.1 in 1990 but there is no evidence that this has occurred. The highest total fertility rates, of over 6.0, occurred in the New Britain provinces. Thus the country as a whole is going through a very early phase of the demographic transition, from high to lower mortality and fertility rates, accompanied therefore by a higher rate of population growth.

There are no reliable data on mortality levels in Papua New Guinea before 1946 but it is probable that mortality rates were very high throughout most of the country. After the Second World War life expectancy rose from 32 years for males and 31 years for females in 1944 to an average of 48.7 for males and 50.7 for females in 1980. Life expectancies are relatively short, but very different between provinces. In the West Sepik and the Southern Highlands the respective figures were only 42 and 44, whereas in the North Solomons it was 60 and in both the National Capital District and Milne Bay it was 57. In some isolated areas of inland Western Province life expectancies may have been in the mid-30s until quite recently.

Over the period 1966–90 the infant mortality rate declined from over 150 to 52, still an extremely high rate. Again there were major variations in the infant mortality rate between provinces; in 1980 the Southern Highlands had a rate of 116 and West Sepik 104, while the North Solomons had a rate of 33 and the National Capital District had 35. There is a continuing transition from high to low mortality, most apparent in the coastal and urban areas, and attributable to increased standards of living and the extension of medical services.

There are considerable variations in the rates of population change within Papua New Guinea. Although this is primarily a result of internal migration, there are also significant differences in fertility and mortality between regions. In 1990 the fertility rate was reported to have varied from 28 in the five highlands provinces to 38 in the islands provinces (Manus, New Ireland and New Britain), while the mortality rate varied from 13 in both the highlands provinces and the northern (MOMASE) provinces (from Morobe to Sepik) to 10.5 in the islands. Although the fertility rate in the highlands provinces was reported to be declining between 1980 and 1990, this seems unlikely.
Prediction of future rates of change has proved difficult in the past and it is far from clear how the structure of population in Papua New Guinea will change in the future, other than that it is likely to grow relatively quickly. Trends in place at the start of the 1990s suggest that the population will reach around 4.5 million by the end of the century, and double in a further 30 years, before stabilising.

Until the start of the 1990s, Papua New Guinea had no comprehensive policy towards human resource planning, though there were intermittent policies related to particular components of population growth such as the allocation of health resources, resettlement schemes and return migration. Traditional controls on population growth had weakened, but modern family planning techniques had scarcely begun to intervene. The most important factor regulating fertility in Papua New Guinea had been virtually universal prolonged breastfeeding; family planning policy had been effectively aimed at improving mother and child health and welfare rather than slowing population growth rates. However in June 1991 Papua New Guinea launched a National Population Policy. The Policy included an ambitious target to reduce the total fertility rate from more than 5.0 per woman to 3.2 by the year 2000 and stressed that high population growth is a deterrent to the attainment of an improved standard of life and quality of life of the people...A high rate of population growth reduces health status through resource depletion and deterioration of the environment, increases pressure on land, water, food, housing, education services, jobs and so on (Papua New Guinea 1991:12-13).

Following the policy launch the government sought assistance from overseas donors to design a population and planning project that would enable the government to implement the policy and attain its objectives.

This will present a considerable challenge. Although prolonged rural–urban migration, increasing pressure on both rural land and urban services, rising youth unemployment and discontent and high levels of maternal mortality have produced a more favourable climate for establishing a population policy (McMurray 1992:13), achieving the policy targets is likely to prove difficult. The factors that are most conducive to successful population policies—integration of population and development policies, improved rural
development and communication to spread new values and reduce the economic significance of children, formal sector employment opportunities for women and increasing age of marriage (Ahlburg 1991)—are largely absent in Papua New Guinea (though the factors contributing to the demographic transition elsewhere may not necessarily be those that are most significant in Papua New Guinea). The greatest probability of contraceptive use is amongst urban women who are younger, more educated than average, have higher family incomes and some power (Agyei 1988:107–10). In Papua New Guinea, such women are relatively few.

**Solomon Islands**  The situation in Solomon Islands is broadly similar to that in Papua New Guinea, if on a very different scale, though population growth rates are rather higher. The first real censuses in Solomon Islands were carried out in 1970 and 1976, during which period the population rose from 161,000 to 197,000. The most recent census (1986) recorded a population of 285,000; by 1992 this total had reached around 350,000, making it one of the fastest growing populations in the South Pacific.

Between 1970 and 1976 the annual population growth rate for the whole of Solomon Islands was 3.4 per cent. Guadalcanal and Honiara had high growth rates of 4.7 per cent and 4.9 per cent respectively, whereas Malaita grew at only 2.5 per cent. While these variations cannot be solely due to migration, the relatively uniform natural increase within Solomon Islands suggests that migration has played the largest role in contributing to differential growth rates. Since 1976 the population growth rate has increased slightly to around 3.5 per cent, with Honiara growing even more rapidly than prior to independence. In the 1986 census Honiara had a population of 30,874, having doubled in size since 1976; it has continued to grow since then, reaching a total of around 35,000 in 1992. Since no other significant urban centres have emerged and Auki experienced a decline between 1976 and 1986, the urban population of the Solomon Islands constituted about 15.3 per cent of the total population in 1991.

Prior to independence Solomon Islands was one of the few countries in the world where female life expectancy was less than that of males; indeed it was noted that 'simply stated, women in Solomon Islands

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1) Population and urbanisation
are worked to death' (Steele 1980:40) although the reasons were more complex. By the mid-1980s the situation had improved and female life expectancy exceeded that of males. Unlike the situation in Papua New Guinea the total fertility rate declined, from 7.3 in 1970–76 to 6.3 in 1986, although that figure was still somewhat higher than that in Papua New Guinea.

The combination of high total fertility rate and much lowered infant mortality rate has contributed to the rapid population growth rate in the past 15 years and the extremely youthful population. There is some possibility that fertility may have declined since 1986, with girls staying longer at school, greater female participation in economic activity and a slight increase in the number of family planning acceptors (McMurray 1989), but a lack of data to clarify whether this is so. Population growth rates are therefore likely to continue to be high, and the population may well double by the year 2020. There has already been substantial migration into Honiara and the Guadalcanal Plains from the relatively densely populated islands, particularly from Malaita but also from many of the Polynesian outliers and atolls. If population growth continues to be rapid in those islands, this trend may accelerate.

There has been a history of some opposition towards slowing the rate of population growth in the Solomon Islands, and in the early 1980s there was strong opposition to the introduction of a population policy (Connell 1983b:21–2; McMurray 1989). The release of the preliminary 1986 census results renewed concern over the rapidity of population growth and in 1987 the Ministry of Health prepared a Solomon Islands Population Policy. Central to this policy was the intention to reduce the total fertility rate to less than four within a decade; however the policy stressed no ideal family size and it was not apparent what policies would be implemented to ensure that the target would be reached (McMurray 1989). There were and are a number of constraints restricting the development of population programs (Solomon Islands 1987:11–12), including

- low education levels
- a preference for large families and a ‘lack of awareness at the political level of the implications of a rapid population growth rate and its adverse consequences’
- the limited extent of family planning programs
• the difficulties attached to spreading such programs in a complex archipelagic state.

Significantly the first specific objective of the Policy was ‘to obtain support from the Government and Non-Government Organisations for the population policy and institute systems of cooperation between them and the people’ (Solomon Islands 1987:13). The Policy also sought to encourage rural development and the growth of provincial centres in order to reduce migration to Honiara. The population policy is a significant move towards awareness of the harmful social and economic consequences of very rapid population growth, but there is little indication of widespread support for the policy or for the institutions, programs and projects that are crucial for its success.

Vanuatu

In Vanuatu the population exhibits a correspondingly youthful profile, with 44 per cent under 15 years of age and 17 per cent under 5 years at the 1989 census. The total fertility rate decreased from 6.5 in 1979 to 4.8 in 1989, and the birth rate fell from 42 per thousand in 1979 to between 36 and 38 in 1989. The reasons for this decrease are not known because acceptance of modern family planning methods is still minimal (UNICEF and Vanuatu Government 1991). Detailed demographic profiles and population trends are found in the studies by Connell (1985b), Haberkorn (1985) and Bedford (1989). These describe a fast growing and predominantly rural population characterised by substantial internal migration flows. At least two out of every ten ni-Vanuatu live outside their islands of birth.

No national population policy exists in Vanuatu although the need for one was recognised in the Second National Development Plan (Vanuatu 1987). There has been little interest in establishing family planning activities; Connell (1985b:29) considers ‘that the degree of family planning knowledge and practice in Vanuatu is one of the lowest in the South Pacific region and is unlikely to increase in the near future’. Overall population growth has been substantial, with an annual rate for ni-Vanuatu of 2.8 per cent over the past 25 years. The highest rate of 4.3 per cent occurred in the Efate region where Port Vila is located, followed by the Santo-Malo region containing the town of Luganville. Some of the smaller and more densely populated islands like Paama and the Shepherds have actually lost
population in recent years (UNICEF and Vanuatu Government 1991). The ni-Vanuatu urban population shows a marked difference between the age–sex characteristics of migrants, who are heavily concentrated in the 15–29 age group, and locally born people, with 47 per cent aged under 10 in 1979. Migrants tend to predominate in skilled occupations, though most of the ni-Vanuatu urban labour force is employed in semi and unskilled jobs (Haberkorn 1989a).

Rapid urbanisation in Vanuatu is primarily due to high rates of population mobility; migration appears to be changing from a rural-based circular movement to more permanent rural–urban flows. The arguments suggesting more permanent urban settlement are similar to those used in earlier work on urban commitment in Uganda (Odongo and Lea 1977). A study of migration to Port Vila (Haberkorn 1989b; 1990; 1992) suggested several reasons why the city’s population is exhibiting increasing permanence and is unlikely to revert to significant rural return migration: first, urban migrants are acting like townspeople in their investment priorities and behaviour; second, many young people in the town are now second generation urbanites; and third, even if the urban economy deteriorates significantly in the future, it is unlikely to persuade those already established in the town, however tenuously, to return to rural life and probable underemployment.

Fiji is quite different from the other Melanesian states in that there is much greater cultural diversity there: almost half the population is of Indian origin. Chandra and Chandra have succinctly described Fiji’s population as being highly heterogenous [with] many of the characteristics of developing country populations. It has an annual growth rate of about 2 per cent, which is a reflection of both modest levels of fertility and steady and increasing levels of emigration. The population is distributed mainly in the two main islands, with concern being expressed about possible depopulation of outlying islands. Fiji remains an agricultural, rural society, although 33 per cent of the total population in Fiji in 1976 were resident in urban areas (1990:27).

Fiji’s relatively rapid rate of population increase has been kept in check by one of the most successful family planning programs in the
world. The birth rate fell from 41.78 per thousand in 1959 to 27.81 in 1972; since then there has been no real decline (Connell 1987). The annual rate of population growth is estimated to have fallen to 0.8 per cent since 1986, exacerbated by emigration associated with the coups, but even a low rate of growth such as this will result in an increase in national population from a present 750,000 to between 831,000 and 958,000 by the year 2001 (Cole 1993). Increasing urbanisation is likely to see metropolitan Suva containing 68 per cent of the country’s urban population and 30 per cent of its total population by 2006 (UNDP and UN Centre for Human Settlements 1991).

Changes in the growth rates for the different ethnic communities in Fiji have led to a slowing down in the annual rate of increase for Indians (now 1.75 per cent) and an increase in the indigenous Fijian rate (now 2.37 per cent) with the result that the latter group will exceed the Indian for the first time since 1946 (Crosby 1992). Latest estimates put the totals at 358,000 Fijians, 335,000 Indians and 39,000 others, making a 1990 national total of 733,000 (Bureau of Statistics, cited in Fiji Central Planning Office 1991).

Consequences for urbanisation

Despite the problems associated with rapid population growth, national support for family planning is at best ambiguous outside Fiji. The three northern Melanesian states have no substantial involvement in population planning and, to some extent, population planning is still regarded as an imposition from outside the country. Nor has there been significant perception of the manner in which rapid population growth may slow the rate of national economic development. Population growth is therefore likely to continue to be rapid, at least until the end of the century in Vanuatu and Solomon Islands. It will also be rapid in Papua New Guinea, where the population growth rate could increase, though not to the levels presently experienced in Vanuatu and Solomon Islands. In Fiji the already relatively low growth rate may decline further, but primarily through continued emigration. Elsewhere in Melanesia there is virtually no international migration.

High population growth rates are likely to contribute directly and indirectly to accelerated urbanisation. At the local level the impact of
rapid population increase is apparent, and there is a general relationship between high population densities and rural-urban migration, though this is certainly not apparent everywhere. In Chimbu Province, Papua New Guinea, population growth rates have not been high, but it is only because the Chimbu have already sought their own solution to the problem by migrating to other areas that the pressure on existing areas is tolerable (Howlett et al. 1976:40), and 'with limited opportunity at home, migration is the only option for many villages' (Standish 1981:294). Elsewhere in the highlands, 'migration out of Enga would appear to be the only limiting factor to further population growth' (Lea and Gray 1982:52).

In Vanuatu all the available evidence points to a very close relationship between migration and population pressure on resources, although much of the available data is somewhat dated (Connell 1985b:48). This has almost certainly been further emphasised in the post-independence years as the extent of 'functional landlessness' has grown. Broadly the situation in Solomon Islands is the same (Connell 1983b). In Fiji the evidence of a relationship between increasing population pressure and migration is primarily confined to the smaller eastern islands (Connell 1985a). It is apparent throughout Melanesia that indigenous responses to population growth are viewed in terms of migration, rather than in terms of direct controls on population growth. This situation is unlikely to change quickly.

Despite the ideology and widespread reality of return migration, migration has tended to become more permanent. Even with poor social and economic conditions in some urban areas—rising unemployment, crime and sometimes violent unrest—migration is perceived as a way of escaping limited domestic economic opportunities and of diversifying or transferring human resources into more productive areas. Although virtually the only jobs for uneducated, unskilled migrants are poorly paid, demand has been substantial especially from migrants from the more remote parts of Melanesia where income earning opportunities are very limited (e.g. Boyd 1990). The educational filter that has restricted access to scarce skilled and well-paid jobs has served to differentiate migration streams and to stratify the social and economic structure of the cities. Migration has dramatically speeded up social change and modernisation, especially through commodification and monetisation.
In some circumstances new inequalities have emerged. But for most migrants within Melanesia the situation is somewhat more positive; migration has increased options, diversified earning opportunities, enabled the purchase of a range of new goods and sometimes led to successful careers. The shift of migration from circularity towards permanence (as job opportunities decline, rural opportunities worsen and population grows) has worsened rural–urban inequalities, themselves often emphasised by urban bias in government policy, and also worsened intra-urban inequalities. Slowly, and not very surely, population growth and migration are contributing to a more urban future for Melanesia. The necessity to plan for increased urbanisation and growing demand for urban services is therefore apparent.
Urban primacy and regional development

Urbanisation is a recent phenomenon in the island Pacific. Overall the extent of urbanisation in Melanesia is limited—that is, the proportions of urban residents are small compared with most other countries in the world. But the urban population is highly concentrated in the capital cities, so although urbanisation may be limited compared with other world regions, there are now significant urban centres especially in Papua New Guinea.

Fiji

Of the four states in Melanesia Fiji has the longest history of urbanisation; Suva had a population of 15,500 in 1936 and 25,400 in 1946. Post-war growth there, and also in Lautoka, the second largest town, followed a rise in urban wage levels, an increase in occupational mobility (through early localisation and superior education), an expansion of urban industries and a greater provision of family accommodation in the towns. As in most other parts of the Pacific the indigenous population was restrained from settling in towns during colonial times but Indians were tolerated in the urban areas as long as they did not attempt to intrude within the boundaries of European settlement (Chandra 1990).

Although Fiji has 11 main urban areas and five unincorporated townships, its hierarchy is dominated by metropolitan Suva with just over half the total national urban population, and Lautoka with 14.1 per cent (1986 census). Suva’s primacy is declining, however: it was 4.1 times as large as Lautoka in 1976 but only 3.6 times as large in 1986.
(Crosby 1992). Of particular significance is the growth of the Suva peri-urban area which is now estimated to contain a larger population than is found within the city boundaries. The peri-urban area has seen a population increase of 107 per cent in the past decade compared with an increase of only 9.5 per cent in the city itself (UNDP and UN Centre for Human Settlements 1991). 'In absolute terms, the increase in the population of Suva’s peri-urban area was 16 times the combined increase [1966–76] of all other peri-urban areas' (Chandra 1990). Lami, on the southern edge of Suva, became a separate urban centre in 1986, emphasising the extent of the Suva–Nausori corridor. By contrast some small towns, such as Vatukoula and Rakiraki, were found in the 1986 census to be losing population (Table 2) and few were growing quickly.

### Table 2

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Suva</td>
<td>117,827</td>
<td>141,273</td>
</tr>
<tr>
<td>Lautoka</td>
<td>28,847</td>
<td>39,057</td>
</tr>
<tr>
<td>Lami</td>
<td>-</td>
<td>16,707</td>
</tr>
<tr>
<td>Labasa</td>
<td>12,956</td>
<td>16,545</td>
</tr>
<tr>
<td>Nadi</td>
<td>12,995</td>
<td>15,300</td>
</tr>
<tr>
<td>Nausori</td>
<td>13,982</td>
<td>13,982</td>
</tr>
<tr>
<td>Ba</td>
<td>9,173</td>
<td>10,260</td>
</tr>
<tr>
<td>Vatukoula</td>
<td>6,425</td>
<td>4,789</td>
</tr>
<tr>
<td>Sigatoka</td>
<td>3,635</td>
<td>4,730</td>
</tr>
<tr>
<td>Rakiraki</td>
<td>3,755</td>
<td>3,361</td>
</tr>
<tr>
<td>Levuka</td>
<td>2,764</td>
<td>2,895</td>
</tr>
<tr>
<td>Savusavu</td>
<td>2,295</td>
<td>2,872</td>
</tr>
<tr>
<td>Navua</td>
<td>2,568</td>
<td>2,775</td>
</tr>
<tr>
<td>Tavua</td>
<td>2,144</td>
<td>2,227</td>
</tr>
</tbody>
</table>

*a Excludes the small unincorporated township of Korovou (340).

Source: National census data, various years.

Papua New Guinea

Urbanisation in Papua New Guinea was more belated but, in the post-independence years, more rapid than that in Fiji. It has been so recent that only two decades ago a number of studies stressed the necessity to encourage urban growth. At the time of the 1971 census there were only three towns with populations over 20,000 (Port Moresby, Lae
and Rabaul), and the urban population represented 11 per cent of the total population. The preliminary results of the 1990 census indicated that 536,860 were living in urban areas, representing some 15 per cent of the national population.

Between the 1980 and 1990 censuses the number of urban centres in Papua New Guinea officially increased from 58 to 79 (even excluding North Solomons Province). The total population in these urban areas was around 537,000, with an overall annual growth rate of 3.7 per cent (compared to less than half that in the rural areas). At the same time the proportion of the urban population rose from 12.8 per cent to 15.2 per cent. Much of the growth occurred in the three largest urban areas—Port Moresby, Lae and Madang—but some smaller towns such as Vanimo and Kimbe grew particularly quickly, alongside the new mining town of Tabubil. Mount Hagen, influenced by the mining boom, was one of the fastest growing large towns. Port Moresby has become the largest city in the region, with a 1990 population of 194,000

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Port Moresby (NCD)</td>
<td>123,624</td>
<td>194,295</td>
</tr>
<tr>
<td>Lae</td>
<td>61,617</td>
<td>80,655</td>
</tr>
<tr>
<td>Madang</td>
<td>21,335</td>
<td>27,057</td>
</tr>
<tr>
<td>Wewak</td>
<td>19,890</td>
<td>23,224</td>
</tr>
<tr>
<td>Mt Hagen</td>
<td>13,441</td>
<td>18,977</td>
</tr>
<tr>
<td>Goroka</td>
<td>18,511</td>
<td>18,368</td>
</tr>
<tr>
<td>Rabaul</td>
<td>14,954</td>
<td>18,186</td>
</tr>
<tr>
<td>Daru</td>
<td>7,127</td>
<td>8,490</td>
</tr>
<tr>
<td>Kimbe</td>
<td>4,662</td>
<td>8,363</td>
</tr>
<tr>
<td>Vanimo</td>
<td>3,071</td>
<td>7,908</td>
</tr>
<tr>
<td>Popondetta</td>
<td>6,429</td>
<td>7,627</td>
</tr>
<tr>
<td>Bulolo</td>
<td>6,730</td>
<td>7,421</td>
</tr>
<tr>
<td>Kavieng</td>
<td>4,633</td>
<td>6,486</td>
</tr>
<tr>
<td>Alotau</td>
<td>4,311</td>
<td>6,435</td>
</tr>
<tr>
<td>Mendi</td>
<td>4,130</td>
<td>6,192</td>
</tr>
<tr>
<td>Lorengau</td>
<td>4,547</td>
<td>5,804</td>
</tr>
</tbody>
</table>

a Papua New Guinea towns with less than 5,000 in 1990 have been excluded from this table, as have towns in the North Solomons province. The largest of these are Tabubil (4,670), Kiunga (4,000), Kundiawa (3,987), Kerema (3,952) and Wau (4,268). Some urban populations are known to be under-counted in the 1990 census; Lae almost certainly had a population of over 95,000 at that time.

Source: National census data, various years.
the 1992 population was around 225,000. The second largest city, Lae, was under-enumerated in the 1990 census, and by 1992 certainly had a population of over 100,000, perhaps around 105,000. Only in Fiji is there a comparable urban hierarchy but this is a genuine national hierarchy rather than the more regionalised situation in Papua New Guinea.

Vanuatu

Urbanisation in Solomon Islands and Vanuatu has been equally belated. In 1955 neither Port Vila nor Santo had more than 2,000 people but by 1979 Greater Port Vila had 15,000 people and Greater Santo some 7,350. The Presbyterian Mission Station, established on Iririki Island in 1873, was the first European settlement in Vila Bay and the town of Port Vila was gazetted in 1911. The second town of Luganville on Santo was not gazetted until 1955 and owes much of its early importance as a central place in the northern group of islands to its status as military headquarters of the US forces in Vanuatu during the Second World War (Haberkorn 1989b).

Eighteen per cent of all ni-Vanuatu now reside in the main urban areas of Port Vila and Luganville. During the late 1960s and early 1970s Port Vila grew at the rapid rate of 7.2 per cent per annum, boosted by changes in legislation which turned the country into a tax haven.

The result was electrifying. Between 1972 and 1974 Port Vila became a boom town. Thirteen overseas banks opened their doors, the expatriate population tripled, subdivisions sprouted in what had been previously virgin bush and, as a side effect, tourism took off (Forster 1980:371, cited in Haberkorn 1989b:11).

The peri-urban area has been the major location of ni-Vanuatu residence in Port Vila for 30 years, with its 1965 population of 3,281 being double that of the town proper (Brookfield and Brown Glick

<table>
<thead>
<tr>
<th>Urban centre</th>
<th>1979</th>
<th>1989</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Vila</td>
<td>14,598</td>
<td>19,311</td>
</tr>
<tr>
<td>Luganville</td>
<td>5,183</td>
<td>6,983</td>
</tr>
</tbody>
</table>

Source: National census data, various years.
Recent projections suggest that Port Vila will grow to a total of some 40,000 persons by the turn of the century, though this figure may be an underestimate because it does not include substantial and rapidly growing peri-urban settlements like Blacksands and Federation (Halliburton 1992).

**Solomon Islands**  
In Solomon Islands only Honiara, founded after the Second World War, is an urban centre comparable to those elsewhere in Melanesia. In 1970 its population had passed 1,000; it reached 15,000 in 1976 and had grown to 35,000 by the beginning of the 1990s. Of the other towns only Gizo (with a population of 1,925) could be seen as urbanised in 1981; other provincial centres however have grown rapidly in the years since independence, primarily because of the expansion of a provincial bureaucracy.

In the 1980 National Development Plan there was no concern over the extent of urban development; it was however noted that ‘the urban drift which, whilst not of great significance at the moment, could become more of a problem in the future if the urban way of living appears to be much better than rural life’ (Solomon Islands 1980:33). Since then urbanisation has continued to lead to such general concerns.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Honiara</td>
<td>14,993</td>
<td>30,413</td>
</tr>
<tr>
<td>Gizo</td>
<td>1,596</td>
<td>3,710</td>
</tr>
<tr>
<td>Auki</td>
<td>1,225</td>
<td>3,252</td>
</tr>
<tr>
<td>Kirakira</td>
<td>561</td>
<td>2,586</td>
</tr>
</tbody>
</table>

*Solomon Islands towns with less than 2,000 people in 1986 have been excluded here. These are Buala (1,901), Tulagi (1,622) and Lata (1,295).*

Source: National census data, various years.

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**Urban primacy**

Urban primacy—the dominance of a single urban centre—is not unusual in the Pacific, and is most evident in the smaller Melanesian states of Vanuatu and Solomon Islands. Primacy is less apparent in
Papua New Guinea, partly because of the physical fragmentation of the country, and therefore the significant growth of Lae, Madang and other regional centres. However Port Moresby is growing more rapidly than any other urban centre and there is some evidence that primacy is becoming more established. In Fiji too the Suva–Nausori corridor is much the most important area of urbanisation but there is also urban growth at Nadi and Lautoka, near the international airport. Primacy is most apparent in Solomon Islands, where there is little urban growth outside Honiara, and in Vanuatu where Luganville has grown only slowly in comparison to Port Vila since independence. Urban problems are largely concentrated, or at least are more apparent, in the capital cities although in Papua New Guinea, especially, there are substantial problems in most towns affecting the delivery of urban services. In some situations economies of scale have enabled better service provision in the larger towns.

There are several reasons for primacy. The capital cities are the political and administrative centres; provincial governments in Papua New Guinea and Solomon Islands have not reversed the trend to primacy. The capital city is the centre of political, economic and also intellectual and cultural influence. Consequently the significant decisions are made at the centre, the universities and other tertiary educational establishments tend to be located there (other than at Lae and Goroka in Papua New Guinea), and there is a resultant ‘internal brain drain’ as students move to and stay in the capital (Weinand and Ward 1979). Much of the tertiary sector of the national economies is in the capital city and public sector bureaucracies dominate urban employment; moreover more of all kinds of employment, formal and informal, is located there (including better opportunities for crime) alongside the best hospitals, and modern social life (cinemas, restaurants, night clubs, organised sports) that is often absent in provincial towns.

Primacy inevitably means that not only is the bulk of the population concentrated in one place but so too are services, administration and most industries. Even in Fiji where an urban hierarchy is best developed, modern sector activity is overwhelmingly concentrated in Suva. Although manufacturing is not dominant in Suva, in 1970 the capital accounted for 65 per cent of national retail turnover and 56 per cent of all government and private services (Britton 1980).
1987 the Tax Free Factory/Tax Free Zone scheme was introduced providing a 13-year tax holiday, duty exemptions and freedom to repatriate capital and profits. By September 1990, 9,300 people were employed in tax-free factories, mostly in garment manufacturing located in Suva and Lautoka (Fiji, Central Planning Office 1991). In recent years industrial activity has tended to increase in the west around the international airport, rather than in Suva.

Suva’s predominance originates in a combination of historical, political, social and economic factors. Chandra (1990) identified two less obvious factors: the fact that southeast Viti Levu has long been regarded by the indigenous Fijian élite as their particular sphere of influence; and that Lautoka, the second town, is largely an ‘Indian’ town, making it a less likely candidate for government economic investment in the past. Several authors have underlined the ethnic distinctions in Fiji’s urban hierarchy, identifying Lautoka, Ba, Labasa and Nadi as Indo-Fijian towns, and Sigatoka and Vatukoula as Fijian (Ward 1965 and Walsh 1976, cited in Chandra 1990), though Vatukoula also has a substantial Rotuman population.

Primacy is accentuated by the entrepôt functions of the primate cities: their locations were determined to suit the convenience of colonial administrations rather than as central places for emergent nations. Primacy and centralisation have not led to the development of regional centres, while the increased establishment of primacy makes decentralisation in any form extremely difficult. It has also made the provision of services in small towns more difficult. The capitals are poorly integrated with the small towns and villages, so that there is no real urban hierarchy in either Fiji or Papua New Guinea; towns like Kundiawa, Kavieng and Kainantu have few links to larger urban centres.

Decentralisation, in part to overcome urban primacy, is an important theme in development planning in Melanesia. In Papua New Guinea, where the peripheral location of Port Moresby relative to the population is most apparent, there has even been some discussion of decentralisation (or, in practice, re-centralisation) of a new capital city, but there is little discussion of this now. Most of the towns in Papua New Guinea and Solomon Islands are very small places that would not be regarded as towns in most other parts of the world (King 1983); hence this study primarily focuses on the larger towns where the problems of urban management are greatest.
The pattern and extent of migration in Melanesia in the post-independence decades have been regarded almost ubiquitously as causes of problems, not solutions, and hence not as indicators of, nor forces behind, economic growth and structural transformation of economies. Migration in response to uneven opportunities can be functional if an urban-based development or industrialisation process requires a larger supply of labour than the towns themselves can provide. Income differentials then provide the incentive that attracts labour to those parts of the country and to those sectors of the economy where its marginal productivity is highest, and where it can contribute most to economic growth and development. However, in terms of internal migration, if the urban areas display high levels of open unemployment, and migration continues because differentials between urban and rural average incomes remain substantial, further migration hampers economic growth and development.

This has broadly been the situation in Melanesia. Continuing migration leads to a deterioration of services provided in the urban areas but increases demands for more and better services, and may also deprive the rural areas of the more productive and innovative members of their communities. Urban migration, especially in Papua New Guinea, has taken on such proportions that urban labour markets cannot provide enough productive jobs for all new entrants. Health, education, housing and social and community facilities in most areas cannot keep pace with rapid urban population growth and, as a result, services are deteriorating. Even under conditions of high open urban unemployment, especially in Melanesia, the flow of migrants to the towns has not generally subsided and urban unemployment has not brought urban wage and salary incomes any closer to average rural income levels.

Most development plans say little about population change and the influence of planning on population distribution. Priority has generally been given to economic growth. Not all of the Melanesian countries have development plans and some plans are no more than lists of projects. Since most governments have not identified long-term social and economic goals, firm planning is largely absent. Those countries, like Fiji and Papua New Guinea, which have recognised problems of population distribution, have not yet
developed policies (other than settlement schemes) that influence this distribution. However, concern with the increasing concentration of population in a small, usually urban, part of the country has resulted in some plans including decentralisation among their objectives. In Solomon Islands, the Chief Minister’s foreword to the National Development Plan of 1975–1979 stated: ‘The three cornerstones to our plan are...decentralisation, distribution and decolonisation’ (Solomon Islands 1975, Vol. 2).

To counteract the normal processes of centralisation, both Papua New Guinea and the Solomon Islands placed a strong emphasis on decentralisation at the time of independence. The third of Papua New Guinea’s now historic Eight Aims was concerned with decentralisation of decision-making via provincial governments and ultimately community or village governments, seeking to combine political decentralisation with regional economic growth. A similar situation was recognised in the first Solomon Islands National Plan.

No commercial activity has been deliberately located away from Honiara so far, except for those which could not be located in Honiara anyway such as logging, fisheries and cattle farming. There is a widespread assumption that all manufacturing and processing activities will take place in Honiara; continuance of this trend would run against the government’s overall objectives. It is clear that deliberate government policy, backed by public funds will be needed if decentralisation of economic activity, and a wider sharing of its effects, is to be a real feature of development during this plan (Solomon Islands 1975, Vol. 1:19).

Solomon Islands also introduced provincial governments similar to those of Papua New Guinea. At much the same time Fiji’s Seventh Development Plan 1976–1980 emphasised continued redistribution in favour of the outer islands. As Vanuatu moved towards independence the government emphasised similar themes. Vanuatu’s Decentralisation Act No. 11 of 1980 allowed the establishment of local government regions and local government councils. Today there is concern that government services of various kinds are being located in the two urban areas without sufficient thought being given to decentralisation possibilities.

Assuming a concern for the pressure on urban areas, the primary issue raised is whether the particular service can be physically decentralised. Key issues are the necessity of the service to be provided in the urban areas, or in a particular urban area rather
than another, the relative costs and the cost of relocation. An attempt should be made to pit the relevant costs against the true costs of providing the service "in town", including indirect costs...Vanuatu is increasingly acquiring improved transport and telecommunications infrastructure; such developments enhance decentralisation opportunities. Presently, it is clear that at least some service provision is being located within Port Vila without any, let alone sufficient, thought being given to decentralisation (Halliburton 1992:59).

There has been a limited attempt to be more specific in Fiji’s Seventh National Development Plan.

A major Plan objective is to reduce the level of [rural–urban] movement, primarily through programs to improve the quality of life, increase real rural incomes, and expand employment opportunities in the rural areas (Fiji, Central Planning Office 1975:20).

A similar attempt was made in Papua New Guinea.

If smaller towns can be encouraged to grow to a size which makes increased production of goods and services viable, they will become relatively more attractive to urban migrants than Port Moresby and Lae and will foster a more even distribution of urban-based services throughout the country (Papua New Guinea 1978:107).

Yet since these expressions of concern over the regional implications of development planning, preoccupation with spatial equity has given way to demand for economic growth, and explicit spatial policies have disappeared. In any case these tended to be general statements of objectives rather than policies to determine optimal patterns of migration; they were no more than more elegantly or philosophically expressed statements of intent that, in practice, no more indicated how future population distribution could be altered than would a list of planned development projects. Where population distribution has changed as a result of other development projects, this has been a side-effect rather than a specific objective of projects such as transport improvements, urban services or exploitation of natural resources.

Settlement schemes are the most obvious examples of projects that are designed to influence population distribution. They include rubber and oil palm schemes in Papua New Guinea, sugar cane schemes in Fiji (as at Seaqaqa), oil and rice in Solomon Islands, and
PHANNKING THE FUTURE

schemes designed to resettle populations from areas experiencing hazard. Existing evidence suggests that in all cases the population housed through settlement schemes comes almost entirely from other rural areas and has not been decentralised from urban areas, although these schemes do provide an alternative destination for rural outmigration. Efforts towards population decentralisation (or to minimise the distance of rural–urban migration) have thus generally, and most recently, focused on small towns as growth centres, but only in the two larger countries. None of these policies and programs have effectively contributed to rural or regional development and no growth centres (such as Noro) have contributed to a new spatial distribution of development. Change has primarily followed the establishment of new mining centres in Papua New Guinea, with the rapid growth of population in the vicinity. Even where the distribution of services like education, health and housing are to some extent divorced from the operation of the market economy—their distribution being almost entirely controlled by government intervention in economies where the public service sector is dominant—the allocation of resources has tended to emphasise urban primacy.

It is inevitable that some resources must be distributed unevenly. Expenditure on housing provision (either for public servants and other workers, or via site and service schemes) throughout Melanesia is almost entirely urban-based. Except for Fiji, assistance with housing and the provision of water supplies is almost non-existent in rural areas; water supplies especially are not always available in village situations. This bias in distribution may be inescapable (although it can be compensated for) but it may also be an indirect inducement to further rural–urban migration.

It has long been established that, as in Papua New Guinea, urban areas have received a disproportionate share of the national wealth and any guidelines that are drawn up for future urbanisation must deal with a need to reduce expenditure per head on urban dwellers (Papua New Guinea, National Planning Office 1977:12).

It is less well established that 'not all urban dwellers benefited from the expenditure' (Papua New Guinea, National Planning Office 1977:12). Overall public sector expenditure is heavily concentrated on urban areas (pp. 12–13), and two groups particularly have received
a disproportionate share of government expenditure: expatriates in both the public and private sectors; and national public servants who, following expatriate models, have been able to secure government housing at heavily subsidised rentals. Unequal access to housing is matched, and emphasised, by uneven access to other services.

That new growth poles and regional development in Melanesia have been unsuccessful is unsurprising. The experience of growth poles elsewhere in the world is not encouraging. In Asia the high costs of direct government expenditure on establishment and subsidies have often been prohibitive and have slowed progress. Skilled workers have been reluctant to leave urban areas and development has tended to be capital intensive (hence slow), and national schemes have often been poorly implemented through lack of administrative staff and because of conflicts between national and state government policy. Alternate growth centres will not be successful without reasonable access to labour, other resources and markets unless wages are disproportionately high (as in the mining towns of Papua New Guinea) and development is diversified.

Even where, as in Fiji and Solomon Islands, development strategy favours new growth centres, these are, or should be, directly oriented to the needs and production potential of the nearby rural areas. What is true of Papua New Guinea is almost equally true elsewhere.

The rate of urbanisation is likely to increase significantly in Papua New Guinea and rural–urban migration will steadily increase. It would appear that investment in rural areas is essential as a counter balance to this trend, but towns need to be planned, developed and efficiently managed in order to cope with the expected urban growth and to complement and encourage rural development (ADB 1992:7).

The priority of agricultural development (and rural development generally) in the South Pacific, and the tertiary employment structure of towns suggest that policies which favour the redistribution of opportunities towards rural areas are more important here than in any other developing countries, and moreover that population distribution policy should be an integral part of national development planning. That it is not suggests that urbanisation will continue to increase in the future.
Patterns of urban employment

Urban primacy is partly a function of the tripartite employment structure of Melanesian towns and cities—an administrative and service sector, a small manufacturing sector and the informal sector.

An administrative and service sector is characteristic of all towns. It was the principal reason for the establishment of many Melanesian towns and is often almost the only real contemporary economic function of the smaller towns. In the transition from colonial towns to Melanesian cities the urban economy has diversified but the manufacturing sector remains small and the informal sector almost absent, even in Papua New Guinea (although here some workers are involved in window cleaning, shoe polishing, lawn cutting, bottle collecting, betel-nut selling, handicraft production and prostitution). The relative absence of the informal sector is due to restrictive legislation, especially on food selling (Fitzpatrick and Blaxter 1976), relatively low consumer demand for some services, and limited skills, but also results from the relative affluence of the subsistence sector compared with, for example, many Asian economies.

Industrialisation is similarly limited in extent, with the little that there is primarily confined to the larger cities (Lae and Port Moresby in Papua New Guinea, Honiara in Solomon Islands and Port Vila in Vanuatu), except in Fiji where manufacturing industry, especially of textiles for export, is more widespread. Despite constant discussion of the possibility of stimulating industrialisation in Papua New Guinea, high wages and other factors have discouraged its development. As is the case throughout Melanesia, industrialisation
is constrained by market size, limited possibilities for inter-sectoral linkages, a shortage of skilled labour and various government rules and regulations. One particular constraint is the limited availability of urban housing for rental or lease (Chapter 8) which, combined with the high cost of construction, pushes up urban wages.

In Papua New Guinea the reduction of the urban minimum wage may encourage industrialisation, but generally, other than in Fiji and with the exception of mining, industrialisation is largely confined to import substitution activities and thus employs a relatively small proportion of the urban population. Formal sector employment is primarily in the public and private sector service industries.

<table>
<thead>
<tr>
<th>High urban wages encourage rural-urban migration</th>
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<td>In most Pacific towns the employment structure is heavily dominated by tertiary sector activities where wage and salary levels and employment creation are only partially determined by the workings of a fully competitive labour market. Incomes are related less to productivity than to institutional factors. Collective bargaining may result in wage levels that are acceptable to both workers and employers, but effectively prohibits rapid expansion of employment.</td>
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Even though average formal sector income levels have been raised to a level higher than that at which full employment could result, migrants continue to be attracted to towns as long as they have some chance of finding a job in the formal sector. The education system, in rural as much as in urban areas, prepares students for employment outside agriculture and leads them to expect and aspire towards urban non-manual employment. With urban (cash plus subsistence) household incomes often twice the level of average household incomes in rural areas it is economically rational for rural–urban migrants to risk a prolonged period of unemployment before finding a formal sector job even in times of high urban unemployment.

Rural dwellers are thus rightly attracted to the prospect of urban living conditions in comparison with the opportunities to increase rural earnings, and so the prospects for rural development are further reduced. From the early 1980s declining cash crop prices (and thus the diminution of the plantation sector) and stable markets for Fijian sugar have contributed to substantial rural–urban migration. Although this is most apparent in the expansion of the largest cities,
it is more dramatic in mining towns, such as Tabubil or even Porgera, where the peripheral settlements are in striking contrast to the formal layout and housing of the towns themselves. Similarly, although rural–urban migration is most apparent in Papua New Guinea, it is no less important (though on a smaller scale) in Solomon Islands, Vanuatu and Fiji.

Urban unemployment and inequality Declining job opportunities in urban areas necessarily emphasise differences between those with jobs and those without jobs. Urban unemployment varies significantly between different groups within Melanesian towns; for example, there are differences between relatively unemployed highlanders and employed coastal residents in Port Moresby (Levine and Levine 1979:37–8). This kind of variation in urban unemployment among migrants may well emphasise existing inequalities in rural incomes. Within Port Moresby, it has been argued on the one hand that unemployment levels in settlements are generally higher than in other parts of the urban area (Norwood 1979:79), and on the other that there is no necessary relationship between the two here or elsewhere in the urban areas of Papua New Guinea (Jackson 1978:174–5). More than a decade later there is even less information to test this assertion, and no data at all for the Solomon Islands or Vanuatu, where unemployment levels in settlements are probably much like those in the wider urban area. That there is some correlation between recent migration and joblessness is more readily apparent.

This is one area, among many, where basic data on the urban economy in Melanesia are conspicuously lacking. Not only is the definition and measurement of unemployment difficult because of the significance of the informal sector and the continued importance of semi-subsistence activities, but there have been few studies of urban employment and unemployment. However there is a substantial degree of overt unemployment in urban areas and it is almost certain that the extent of unemployment is increasing.

In some contexts this has long been apparent: in Vanuatu in 1969 it was said that ‘all evidence suggests that there is presently a surplus of unskilled labour at least in the area around Port Vila...in all native villages visited in the area it was alleged that some workers desired to work in Port Vila but could not find employment’ (Metcalf
1969:14). Since then there has been scattered evidence of growing urban unemployment (e.g. Connell 1985b:23–4). Although there is little evidence of the scale and nature of unemployment in Vanuatu, the real income per capita of ni-Vanuatu has fallen since 1983 and the ratio of expatriate income to ni-Vanuatu income has risen from 12:1 in 1983 to 16:1 in 1989—expatriates now receive a quarter of the national income. A similar imbalance is found between rural and urban incomes. Urban levels are about 8.5 times those of the rural areas (UNICEF and Vanuatu Government 1991). As in Papua New Guinea, migration may have accentuated this situation.

Until at least the mid-1970s there was little unemployment in Honiara; migration was predominantly circular and those who could not obtain jobs tended to return to rural areas (Connell 1983b:48). Here also the extent of overt urban unemployment has subsequently increased.

In Fiji the 1986 census indicated that approximately 241,160 persons aged 15 years and over were economically active; this amounts to 55 per cent of this age group (Crosby 1992). Those in continuous paid employment had grown to 88,900 by 1990, an increase of 11,300 jobs since 1987. The growth has occurred mainly in manufacturing, trade and hotels, and transport and communications, reflecting changes in government economic policy since 1987. The contribution of manufacturing to total paid employment in the economy, for example, grew from 17.8 per cent in 1987 to 23.6 per cent in 1990 (Fiji, Central Planning Office 1991).

In Papua New Guinea there have been more studies of urban unemployment. The earliest of these, the Urban Household Survey of 1973–74, revealed that those out of work in urban areas (apart from those from the immediate area around the town) tended to come mainly from a small number of relatively poor areas of Papua New Guinea (Garnaut et al. 1977:45, 49).

Urban unemployment in Papua New Guinea was mainly a phenomenon of the relatively young, the less educated and the more recent arrivals in town. It seems to have been quantitatively most important amongst people from districts very close to the town, and from more distant districts that are poor in services and income-earning opportunities and yet linked into the country’s main communications and transport network (Garnaut et al. 1977:56).
The report also found that migrants from Chimbu province were prepared to endure much lower wage levels (and employment rates) than migrants from other areas, an indication of the problems of rural development in Chimbu. At the time of the survey there were relatively few migrants from some of the very poor areas of Papua New Guinea, including parts of Enga and West Sepik, and with the exception of some migrants from Gulf province, few of these migrant groups had produced many children in town. Thus the Urban Household Survey was only looking at the recent emergence of minimum levels of unemployment in association with largely circular migration. In the past decade, and especially in the last five years, unemployment and permanent migration have increased together.

**A more permanent urban population**

Only since the 1960s has there been significant urbanisation in Melanesia. In the past, many factors have discouraged permanent urban residence.

- There are no social security or welfare systems which provide for urban living when an individual is unemployed or has retired.
- Many urban workers are in tied accommodation, where the accommodation is associated with the job. In 1973–74 about 26 per cent of urban households in the major towns of Papua New Guinea were in tied accommodation. About 25 per cent of housing is rented.
- Many migrants live in squatter settlements where they occupy land without formal tenure, and temporary tenure may be rescinded. In Port Moresby in 1977, less than 30 per cent of the residents of migrant settlements owned the land on which their houses were constructed (Papua New Guinea, Bureau of Statistics 1980:16).
- Urban incomes may be inadequate to support a family, a factor which has discouraged migration as well as permanent residence.
- The heterogeneity of urban life, in Papua New Guinea especially (with migrants from a variety of traditionally opposed language groups and regions) contributes to a degree of insecurity, especially where unemployment, violence
and crime also occur. This tends to be less true of Fiji where urbanisation has been longer established.

Urban wages, at least in Papua New Guinea (with an urban minimum wage set at a high level in colonial times), have been high relative to many other developing countries. Unions are weak and localised and there has been a declining rate of urban employment creation. This situation remained unchanged until September 1992 when the new Papua New Guinea government decided to reduce the urban minimum wage. While the policy was intended to encourage industrialisation and stimulate other components of the private sector, it may both increase urban social problems and discourage rural–urban migration.

Other factors, including the decline in the rate of creation of new formal sector urban job opportunities and slower turnover in the workforce, have tended to encourage a more stable urban population.

• Urban conditions have improved substantially as urban wages and the provision of married accommodation have increased, social activities have diversified and governments have encouraged home ownership, especially for élite workers.

• Cash-earning opportunities have declined in a number of rural areas, especially as cash cropping has frozen some areas of land. This has occurred in some densely populated areas of Papua New Guinea, including parts of the East Sepik, Gulf, Central Chimbu and East New Britain provinces (Garnaut et al. 1977:182); in some of the smaller islands of the Solomon Islands such as Sikaiana, Anuta, Tikopia and parts of some larger islands; the Shepherd Islands of Vanuatu; and also in many of the eastern islands of Fiji. In any case interest in agricultural employment has declined in recent decades. In the mid-1960s fully 94 per cent of all informal settlement residents in Port Moresby came from the relatively impoverished Gulf, Western and Central provinces (Rew 1975:44–5).

• Migration has resulted in intermarriage across racial and ethnic groupings. Such couples often have fewer opportunities in rural areas (depending on the structure of land tenure). They may experience social problems in either of their home rural areas as ties become divergent and conflicting and their
children have very few ties (and no emotional ties) to rural areas (e.g. Connell 1988). Fifteen years ago a quarter of the children born in the large towns of Port Moresby, Lae and Rabaul had never visited their home villages (Garnaut et al. 1977). A more recent study in Port Moresby showed that this population is unchanged and, moreover, is primarily a result of these children being too young to have had an opportunity to go home. Only 10 per cent of adults had not visited home, mainly because they were recent migrants (King 1992:12). Nonetheless, over time, urban permanency has become more important and for some is now seen to be irrevocable (Ryan 1989).

The combination of growing urban permanency, high unemployment and increased expectations has put considerable pressure on urban services of different kinds.

**Cities of social change**

Urbanisation represents not only the result of an increase in the extent of migration but also, for many, an intended long-term change of residence. At the minimum it necessitates planning as if this were so. Migration may still continue to provide the bulk of urban population increases in Papua New Guinea but in Fiji natural increase within urban areas is more important. Increasingly migration is of families, rather than single males, and independent female migration is also increasing in some areas, although its impact is unclear.

Female and family migration to the urban areas is balancing sex ratios in most towns, including Port Moresby where the ratio of males per hundred females fell from 185 to 139 between 1966 and 1977, and to 125 by 1990. By contrast, that of Lae was 130 and that of the mining town of Tabubil was 150. Similar changes were recorded much earlier in Fijian urban areas where the sex ratio is now evenly balanced (Fiji, Parliament 1979:17–18). Haberkorn notes that 'the most striking demographic change amongst urban ni-Vanuatu during the 1970s has been a much stronger increase in Port Vila’s and Santo’s female population' (1989b:13). Overall urban sex ratios in Port Vila dropped from 144 in 1967 to 121 in 1979. Women over 15 years old now make up nearly 47 per cent of the population but only 35 per cent of the paid labour force. Their representation in nearly every

Although the cities are still predominantly male it is only in the mining towns of Papua New Guinea that sex ratios remain particularly lopsided. The movement towards more balanced sex ratios demonstrates that natural increase in Melanesia, as elsewhere, is becoming a more important contributor to urban population increases. Although ambivalent attitudes to urban life and residence persist, migrants have stayed longer in town, and women have come in increasing numbers, either with their husbands—thus producing and raising families in town—or, less frequently, to seek employment or access to improved services. In Mount Hagen, for example, some 48 per cent of a sample of households resident in 1989 had been there for more than a decade and a high proportion intended to remain much longer (ADB 1992:18). As elsewhere, motives for migration were predominantly economic.

Attitudes to permanent residency

There are marked differences between social groups in residents' intentions to remain in towns and cities. In Suva two-thirds of Indians claimed they would remain permanently in Suva while less than a third of the Fijian migrants said they would do likewise despite the greater number (three-quarters) of Fijians sampled who had spent more than half their working lives in Suva. This difference between the two groups was reflected in home ownership. Only 30 per cent of migrant Fijian heads of household owned a house only in Suva, whereas a further 29 per cent owned houses in both Suva and their home village. In contrast, 61 per cent of Indian household heads owned their houses in Suva and only 13 per cent owned houses in both Suva and in the rural area. Similarly, more Fijians visited their rural place of origin, remitted money and contributed to rural projects than did Indians of rural origin (Nair 1980).

The key factor in explaining these differences between Indians and Fijians stemmed from the continuing ownership and access to rural land which is open only to Fijians.

For Fijians in particular, urban centres are regarded as locations of employment and modern amenities, and rural communities primarily as locations that offer opportunities for a better social and cultural life and the chance of a peaceful retirement...It is
conceivable that fewer Indo-Fijians would reside for long periods in the city and more would wish to return to rural settlements if land were available for cash cropping, since many indicated this was the reason they went to Suva (Nair 1980:89, 92).

The original relationship to the land established by the colonial authorities over one hundred years ago remains an important factor influencing the very different degree of commitment to permanent urban residence. Thus the Indians of Suva exhibit some similarities with the poorest migrants in Port Moresby. Both groups have only limited opportunities for access to land at home, yet the extent to which either group can genuinely be considered a proletariat remains small.

The most obvious category of potentially permanent urban residents is the inhabitants of villages now incorporated into urban areas in most of the larger Melanesian towns, like Hanuabada in Port Moresby. Second, there are migrants and their children from some of the poorer rural areas listed earlier, and the seemingly permanent urban residents from parts of the East Sepik and Gulf provinces in Papua New Guinea (e.g. Ryan 1989), from Malaita in Solomon Islands and the Shepherd Islands in Vanuatu. Third, there are a number of bureaucrats and other élite workers, with skills that are inappropriate in rural areas and social expectations beyond those capable of being fulfilled in the rural areas, who may well remain in town and are being encouraged to do so. In Fiji, where there have been urban centres and a tradition of rural–urban migration for a much longer period of time than in other parts of Melanesia, permanent urban residence is more readily identifiable (e.g. Bedford 1988).

There appears therefore to be a differentiation between those permanent urban residents who are relatively poor (the urban villagers and the migrants from poor rural areas) and the bureaucrats and others employed in the formal sector who are relatively well-off. It is only this latter group who are relatively mobile and it is the least mobile migrants who tend to be the least successful migrants. They lack capital for travel, cannot distribute money and gifts in rural areas and must retain their precarious urban commitment. The pattern of migration therefore has implications for the growth of an urban dispossessed group, and for its ability to obtain and pay for urban services.
A permanent urban poor?

In most Melanesian towns there are obvious residential divisions that, to some extent follow earlier racial segregation. They are most apparent in Papua New Guinea and Solomon Islands where there is an inverse relationship between ethnic group size and segregation. Unplanned settlements are primarily based on ethnic groupings.

Most of the smaller no covenant settlements consist of people from one particular area or even one particular village. The large ones are usually internally divided on quite clear lines into separate village groups (Jackson 1976:63).

Since independence this situation has become more complex and elaborate. Small residential groups often function in many ways as urban villages, despite significant economic ties to the urban area, and tend to reinforce rural–urban ties rather than assist in the establishment of social ties in the wider community. In many employment situations too, migrants from the same area work together and these social and economic ties are the basis of much social support in the city. New migrants to the city are generally housed and fed by their kinsfolk, and may also be assisted in the search for jobs to the extent that employment in many firms, stores and transport ventures is controlled by workers from particular areas. This assistance necessarily places a new migrant in a dependency relationship with kin; inevitably kinship is then expressed in residential patterns.

Kinship ties may develop into formal and informal associations which cut across traditional affiliations; these do not affect residential locations, and such associations may well co-exist with or be superimposed upon traditional ethnic ties. This is particularly true of both church groups and sports associations whilst throughout Melanesian towns there are regional associations that encourage group identification and rural ties. Generally townsfolk increasingly recognise ethnicity in wider geographical terms, but while there is a greater degree of intermarriage between ethnic groups, there is relatively little evidence that this has been accompanied by the formation of other kinds of ties or cultural associations. Even in formal housing areas the social organisation of urban life remains very closely tied to ethnicity and thus rural origins.
It has been suggested that a sense of disadvantage may cut across ethnic and regional origins, at least in the two largest cities of Papua New Guinea: ‘signs of a fusion of class and ethnic consciousness are to be found amongst the Gulf and Goilala people in Port Moresby and the Chimbu in Lae’ (Townsend 1980:24). But there is little real evidence of any expression of this class consciousness, other than perhaps through gang membership (Goddard 1992), and much more recent evidence of acute ethnic divisions in the cities, manifest in violence and disputes over access to services, especially housing (Chapter 8).

In Melanesian cities there are almost none of the usual variety of associations created and sustained by ordinary people to protect specific economic interests. Even trade unions are almost entirely absent. The emergence of a class terminology, even among people whose traditional vocabularies lack such terms, is apparent in parts of Africa but not in Melanesia. Only the pidgin terms pasendia from Papua New Guinea and liu in Solomon Islands, with their connotations of an ‘urban-yet-rootless-unemployed’ fill this kind of gap, but do not demarcate a class.

The close rural ties that are maintained by many long-term urban residents are well known. These ties are not merely of sentimental value but stem from the intention of many migrants to return eventually to the home village as a response to the bleak prospects of access to housing, security or urban land tenure and low or no pension payments or health benefits after retirement from wage employment. They also relate to notions of obligation and identity.

This is not to suggest that a permanent urban proletariat is not developing. High levels of unemployment among migrants from the poorest areas of the country indicate that people are remaining in urban areas despite their low informal sector incomes. One result of the maintained strength of ethnicity is that the urban poor are not yet in a situation where they can cooperate to defend their interests. Economic, social and political organisation could be significant for access to, and the structure of, service provision.
Urban tourism: mismanagement and missed opportunities

Before leaving the subject of urban economy and society it is important to note that recently Vanuatu, Fiji and Solomon Islands have placed great emphasis on the development of their tourist industries. The effects of a growing tourism sector are not uniform among the Pacific island states (where considerable competition exists). Nor are they uniform among the four Melanesian countries, or even rural and urban areas. The 500 hotel beds in Port Vila, for example, comprise most of the country’s tourist accommodation, whereas tourism in the Fijian capital of Suva is of minor importance compared to the development of the industry elsewhere in the country. A recent editorial in the *The Fiji Times* drew attention to this situation.

Suva has failed dismally to become an attractive tourist drawcard despite years of trying. It is not for want of assets: it is the national capital and the heart of the country’s retail centre, it is surrounded by sea, it has natural beauty and boasts several of our national historical and architectural heritage [sic]. Yet tourists do not seek out Suva as a holiday attraction. Why?...the capital city cannot take shelter behind the excuse that it lacks the ‘surf, sea and sand’ attraction. The truth of the matter is that Suva has failed to create a niche for itself in the travel world. It has very little to offer the holiday maker even in the way of shopping...Who should take the brunt for such gross neglect? Some of it goes to a shocking lack of civic pride among our people. But most of it lies at the door of our city fathers and city planners...There appears to be a lack of commitment, of ideas, and a vision. And so long as the municipalities continue to be served by nominated members rather than an elected group accountable to the people, the neglect and lack of commitment will continue (18 November 1992).

Besides this identified failure in urban management there is an array of other issues in the Melanesian capital cities which affect the current viability and future growth prospects of the tourist industry. In summary, they include: the amount and location of investment in improvement of transport infrastructure (particularly airports); the extent of health risks (Honiara is widely perceived as having one of the highest incidences of malaria in the world); the general safety of travellers; and overall cost structures (the Melanesian countries compare unfavourably with many Asian destinations).
In the same month that tourism and urban management were linked together in the Fiji press, similar sentiments were expressed in the Solomon Islands.

Two weeks ago Henderson Airport was without its fire engine. International flights were informed that they could land but they did so at their own risk. Some planes landed but others refused to come...No matter how much Solomon Islanders want tourists to visit the country, enjoy its beauty and meet with its people, certain things have to be in place...Honiara could be a first class tourist attraction. Although small by big country standards it boasts hotels, restaurants, stores and shops. The city's communication links—telephone, fax and telex—with the outside world are first class. Our road system, although in poor state at present, has a $3.2 million road repair plan in place. This should go a long way to correct our poor roads in the next year or so...But, as in the case of the missing fire engine, are we killing ourselves and the tourist? A tourist had better not get seriously sick in this country. At present we don’t have a hospital. Yes that’s right: we don’t have a hospital. Until the surgeons come back to work, No 9 is just a glorified clinic. Yes, we have X-ray machines, operating tables, nurses and buildings. But we don’t have surgeons. Honiara is now the malaria capital of the world. No other city in the whole wide world has as much malaria as we do. More than 450 people in every 1000 are sickened with malaria in Honiara each year. Tourists like to take back small gifts and carvings in their bags when they return from the Solomons. Unfortunately our mosquitos are filling their bodies with malaria...Honiara is once again falling back to its dirty ways. HMA conducts a yearly drive to remind Honiara citizens about keeping Honiara clean, rubbish free and beautiful with flowers and trees. A short walk along Mendana Avenue presents another picture. Plastics, paper and just plain dirt remain...Creating a strong tourist industry could be a great tool to make our lives better, cleaner and healthier. Investing funds in cleaner water, a functioning hospital, reducing malaria and keeping the city clean and attractive helps, first and foremost, the Honiara citizen. But once these things are in place we can count on visitors coming to enjoy them as well (The Solomons Voice, 11 November 1992).

The tourist industry is also vulnerable to other kinds of local disturbances, including natural disasters and political instability, both of which are particularly marked in Melanesia (Lea and Small 1988). Sometimes tourism provides the opportunity to voice dissatisfaction, resulting in local disputes which are only indirectly
The original trusteeship of the island was assigned to the Secretary of Native Affairs in 1908 after Ratu Tevita Makuti I, then Ka Levu (paramount chief of Nadroga), arranged the purchase of the island from the trustees of the Scott estate in 1909. Funds for the purchase were raised by a provincial levy of three shillings a person. Nakuruvakarua’s proprietorship of Yanuca island was formalised by a deed of Trust in July 1930. Native Lands Commission officials say that as a result of an assignment of 3500 acres of land in Cuvu to the Makutu family in the Maxwell Commission of 1914, it was generally agreed that Yanuca island would be assigned to the remaining members of the tokatoka Nakuruvakarua...A meeting of 23 members of the tokatoka Nakuruvakarua in January 1969 appointed Adi Lady Lala trustee of the island of Yanuca...Adi Lady Lala, as trustee, was also given the right to negotiate land dealing on behalf of the tokatoka (land-owning unit). She was endorsed by members of the tokatoka Nakuruvakarua to be their director on the Board of the Fiji Resorts Limited, the company that held the first lease of Yanuca island. Under the 1969 lease agreement with the Fiji Resorts Limited, the Nakuruvakarua chiefs agreed to forfeit their rights to reassess land rates. Instead they were to be entitled to one per cent of the resort’s annual gross income in excess of $1.8 million. The resort is also levied an annual rental of $20,000...members of the tokatoka Nakuruvakarua have rarely been told anything relating to the money derived from dues administered by the trustee for the last quarter of a century. ‘Disgruntled outsiders should realise that Nakuruvakarua have been denied their right to know and their right to receive their full compensation from the Fijian Hotel for the past 25 years...’ (The Fiji Times, 11 November 1992).
connected with the industry itself. In October and November 1992 Cuvu landowners in Nadroga (near Sigatoka, Fiji) cut off access to the large Shangri-la Fijian luxury resort on Yanuca Island because of a local dispute about the management of the island’s lease money. Villagers built a blockade of burning car tyres and coconut trunks at the end of the causeway linking the island to the mainland, preventing cars and buses from getting through to the island. Some 350 tourists were forced to leave the hotel and 550 hotel staff were threatened with immediate redundancy. After a disturbance lasting about two weeks, 22 Cuvu villagers were arrested by police and the causeway reopened (The Fiji Times, 5, 9, 10 and 11 November 1992).

This sort of land dispute affecting a modern sector activity like tourism is not unusual in Melanesia and provides a good example of the investment uncertainties which can affect major developments like mining, plantation agriculture and tourism (Lea 1993). The confusion such action engenders is illustrated by reports in the national press.

It’s not right. No matter how much the landowners of Cuvu may try to justify their demonstration, it’s not right. By their method of demonstration, the landowners have terrorised the tourists who stayed at Shangri-la’s Fijian Resort. They have:

- forced the resort to scale down business so close to a peak season
- threatened the jobs of hundreds of innocent hotel workers
- cut telecommunication lines to the resort by melting the cables
- been lighting fires on private property, and
- closed access to the resort’s private causeway.

The demonstrators seem to have forgotten one key point: the resort, which attracts mostly family groups, is the goose that lays the golden egg. It is the biggest hotel in the country and it has involved itself and its guests in many [sic] community work in the area. Now the workers at the resort are being laid off and the tourists would be gone this week. For 25 years The Fijian Resort had been the pride and joy of Nadroga. Today the resort and its workers are losing thousands of dollars because of a dispute they have no hand in. The questions we now ask is why has this disturbance been allowed to go on as if no one in authority wanted to touch it? Why have the demonstrators been allowed by police to close a private accessway and endanger the livelihood of other people? The dispute over the lease of the island of Yanuca, on which the Fijian is, is not one that should be solved by fire and terrorism. The case has to be dealt with within the legal framework.
existing in this country—no matter how long it takes (*The Fiji Times*, 9 November 1992).

The history of land dealing at Yanuca Island dates back to the beginning of the twentieth century and illustrates the need to reassess lease and trustee arrangements made in Fiji almost a hundred years ago. It also illustrates the complexity and significance of land tenure even in the Melanesian state, Fiji, where it is most straightforward and where the system has been codified.

Apart from Port Vila, tourism has not proved to be particularly advantageous in the Melanesian capitals and is unlikely to become so in the foreseeable future. The development of the industry in rural areas, especially in Fiji, has brought the benefits of wage employment and other quality of life improvements to remote and often poor communities with few other prospects of development. Nevertheless the bulk of urban residents in Melanesia are the indigenous people of these islands and it is they who are most affected by limited domestic economic growth, inadequate development and poor maintenance of a range of urban services.

*Urbanisation represents not only the result of an increase in the extent of migration but also an intended long-term change of residence.*
Historically, urban planning in Melanesia has broadly followed British principles. Little land was alienated for urban areas, and much of that was occupied in a piecemeal manner as towns expanded. Most urban boundaries in Melanesia encompass alienated land but include some traditional village settlements and additional customary land. Customary land is not available for formal urban development and, in some cases, has been occupied by squatter settlements. In Port Moresby there is a particularly high proportion of customary land (see Oram 1974; Norwood 1979; Lea 1983). In Honiara and Gizo larger areas of land were alienated for urban development, hence settlements are on alienated land rather than customary land. Plans and planning practices in Melanesia must respond to a diversity of cultural circumstances.

Land use legislation

Vanuatu Urban planning in Vanuatu is governed by the provisions of the Physical Planning Act No. 22, 1986 which allows councils to decide on future development policy and prepare land use plans for the municipalities but not for adjacent peri-urban land, most of which is held under customary ownership.

"Urban management in Melanesia has become crisis management, rather than good housekeeping."
It is short but workable legislation although it could be improved in some respects. For example processes for the notification of planning area declarations, plan preparation, and changes and reviews of planning schemes are either unspecified in the law or inappropriately brief. Appeal rights only apply to applicants for development permission, and to those affected by development or by new schemes or changes. Again, pertinent to the present situation in Vanuatu, the statute does not specify how long a council cannot have an approved scheme: remedial provisions, in addition to stating a maximum preparation time, say two or three years, could also allow central government to step in and institute a plan if and when councils fail to approve a plan (Halliburton 1992:24-5).

Draft plans for Port Vila and Luganville have existed for several years but have yet to be approved by the respective councils. The reasons for the delay, according to Halliburton (1992), lie in disputes over urban land at the time of independence in 1980 and in misunderstanding of the purposes and effects of statutory planning. As a result, development controls have been applied inconsistently and at the moment the provisions of the draft plan do not have to be taken into account.

At the time of independence in Vanuatu about 20 per cent of national territory was alienated from customary ownership. The new constitution returned all land in the Republic to the indigenous customary owners except for the urban areas of Port Vila and Luganville which were declared public land in a decision which is still under dispute. Additional provisions have set up Urban Land Leases Selection Committees in the two towns to manage the leasing of public land. These and other land management orders fall under the Land Reform Regulation which lays down the principles for existing land policy. Applications for leasing urban public land are considered by the Director of Land in the Physical Planning Unit of the Ministry of Home Affairs, and by the municipality. This somewhat complex process results in a report to the Urban Land Leases Selection Committee, which subsequently makes a recommendation to the Minister of Lands. However, little urban land in Port Vila remains unleased—estimated to be less than 5 per cent in 1992, with a further 15 per cent leased but undeveloped (Halliburton 1992). This suggests the existence of considerable land speculation. When these circumstances are linked to the large proportion of urban leases held by foreigners, the preconditions exist for future instability.
Local government in Vanuatu is governed by the *Municipalities Act, 1985* which gives councils power to 'control, manage and administer their areas; safeguard public health; and develop, control and manage land taken on lease' (Cap 126, Part VI, Section 25). The municipalities are additionally empowered to initiate, maintain and control a range of possible urban infrastructure and services such as public transport, and to make by-laws (Cap 126, Part VIII, Section 37). They have had difficulty fulfilling their potential role and have not carried out systematic policy formulation or development planning in relation to public works and infrastructure.

Additionally specific policy problems that have arisen, particularly in Port Vila, have typically not resulted in a response from the municipalities. A recent example is in relation to appropriate plot sizes for Port Vila (Halliburton 1992:28).

This provides further evidence of the need to reassess whether local government is in a suitable condition to exercise its assigned powers.

**Fiji**

In Fiji the Department of Town and Country Planning (located in the Ministry of Housing and Urban Development) issues land use approvals and coordinates all authorities concerned with the approval process through the *Subdivision of Lands Act* and the *Town Planning Act*. There is a Forward Planning Unit to undertake special planning projects and prepare town plans where local authorities lack planning facilities. The *Town Planning Act* is based on the United Kingdom Town and Country Planning Act of 1947 and has been described as archaic—it even includes some of the provisions of the British legislation drafted specifically to deal with the problems of war-damaged sites (UNDP and UN Centre for Human Settlements 1991).

The Suva and Lautoka Councils have their own planning and development control departments. The Suva City Council considered 15 applications for subdivisional approval in 1990, amounting to 115 separate lots. This compares with a total of 257 applications received by the national Department of Town and Country Planning in the same year. The latter represents a 40 per cent decrease from the number handled in 1986 immediately before the military coups (Crosby 1992). No master development plan exists for any of the Fijian towns apart from the now outdated *Greater Suva Structure Plan of 1975* (Fiji, Department of Town and Country Planning 1975).
Land acquisition and alienation in Papua New Guinea is a piecemeal process, placing urban land in relatively short supply. As Papua New Guinean towns began to grow in the 1950s, zoned land use patterns became the basis of town planning. Housing divisions followed from the more obviously segregated settlement patterns of early years. Formal housing was separated into 'high covenant' for expatriates, 'medium covenant' for clerical and administrative workers and 'low covenant' for unskilled workers. Some customary villages such as Kila Kila and Hanuabada in Port Moresby became more or less surrounded by formal housing and contained a variety of occupational groups. Land was also zoned for commercial, industrial, recreational and government use (ADB 1992:16–17). Until recently there has been little rezoning of alienated land between different uses. Generally town planning has consisted of development control through the application and adaptation of zoning plans, rather than of positive forward planning (ADB 1992:21).

**Solomon Islands**

Physical planning is relatively new in Solomon Islands, dating back only to 1979 when the *Town and Country Planning Act* was passed by parliament. The Act aimed to ensure that land in Solomon Islands (other than customary land) is developed and used in accordance with properly considered policies that are formulated on adequate information and are directed to promote the welfare of the inhabitants of Solomon Islands...and to ensure that there is proper integration and coordination in the development of land (quoted in Likaveke 1992:2).

Thus in Solomon Islands physical planning is distinguished from economic planning, and the former is situated within the Ministry for Agriculture and Lands.

Most urban centres have no development plans nor even guidelines on which to base the zoning of land and the allocation of services. While these conclusions are particularly pertinent to, and more serious in, Papua New Guinea, they are generally relevant in Melanesia.
Administration

In Papua New Guinea urban management is further complicated by the decentralisation of physical planning to provincial planning boards and to the National Capital District planning board. These boards are responsible for approving and formulating development plans for provinces and urban areas. By 1990 there were eight provincial boards in existence; some, like that in Goroka, sought to coordinate physical planning for more than one province. As decentralisation proceeds, it becomes less linked to national needs: ‘planning takes the form of urban development control rather than forward planning and the chances of policy contradictions increase’ (King 1991:49). In Solomon Islands too, each province and the Honiara Municipal Authority have a Town and Country Planning Board responsible for local physical planning.

In both countries the provinces have neither an adequate skilled workforce, nor sufficient resources to ensure efficient physical planning. Government practice is to let towns finance their own development by committing only limited national resources to issues that concern urbanisation. With restricted provincial funding for urban management, apparent in the context of Lae and Mount Hagen, the tasks of urban development are considerable.

In Papua New Guinea urban authorities have been established in a number of towns (Kavieng, Rabaul, Kimbe, Alotau, Lorengau, Goroka, Lae, Madang, Mount Hagen, Wau-Bulolo, Wewak, and most recently, Kainantu) alongside the National Capital District Commission. The urban authorities perform a varied range of functions. Outside the seven major urban centres (Port Moresby, Lae, Madang, Wewak, Goroka, Rabaul and Mount Hagen) town councils do little more than town cleaning and solid waste collection, because of constraints on financial resources. The ADB notes that there are also labour constraints (1992:26), but there is no apparent basis for this assertion. Maintenance on roads and drainage systems is carried out by either the national or provincial Department of Works or by town authorities. Responsibility for urban services and infrastructure is spread over a number of national, provincial and local agencies (Table 6), indicating the fragmentation of services and the considerable task of coordinating planning, management and delivery.
### Table 6
Agencies involved with urban infrastructure and services in Papua New Guinea

<table>
<thead>
<tr>
<th>Component/sector or subsector</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Water supply</strong></td>
<td></td>
</tr>
<tr>
<td>Declared water districts</td>
<td>Waterboard</td>
</tr>
<tr>
<td>Port Moresby</td>
<td>NCDC</td>
</tr>
<tr>
<td>Other towns</td>
<td>Provincial Government/Local Authority</td>
</tr>
<tr>
<td><strong>Rural establishments</strong></td>
<td>Department of Health</td>
</tr>
<tr>
<td><strong>Sewerage and sanitation</strong></td>
<td></td>
</tr>
<tr>
<td>Declared water districts</td>
<td>Waterboard</td>
</tr>
<tr>
<td>Port Moresby</td>
<td>NCDC</td>
</tr>
<tr>
<td>Other towns</td>
<td>Provincial Government/Local Authority</td>
</tr>
<tr>
<td><strong>Drainage</strong></td>
<td></td>
</tr>
<tr>
<td>Main drainage system, flood protection</td>
<td>Department of Works</td>
</tr>
<tr>
<td>Secondary/tertiary drains</td>
<td>Provincial Government/Local Authority</td>
</tr>
<tr>
<td><strong>Roads</strong></td>
<td></td>
</tr>
<tr>
<td>National roads</td>
<td>Department of Works</td>
</tr>
<tr>
<td>Local roads</td>
<td>Provincial Government/Local Authority</td>
</tr>
<tr>
<td><strong>Solid waste management</strong></td>
<td></td>
</tr>
<tr>
<td>Street cleaning</td>
<td>Local Authority</td>
</tr>
</tbody>
</table>

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The system of planning in Port Moresby is different from that elsewhere in Papua New Guinea since the capital is the only urban area in the nation that does not fall under a provincial government. The National Capital District Interim Commission was established in 1982 with responsibility for the National Capital District, with the exception of the 10 Motu-Koita traditional villages within the urban area. Much discussion of the role of the Commission followed (Morauta et al. 1986), and in 1990 it became the National Capital District.

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*a* A water district is a town which has been incorporated within the Waterboard.

*b* National Capital District Commission.

*c* Local Authority, Local Community Government or Town Council.

Commission (NCDC) with responsibility to provide and maintain all infrastructural services required for the city’s development. Most of the current functions of the NCDC are similar to those of provincial governments (though there is no elected assembly), combined with the routine functions of local government. These include local rates, taxes control and management, water distribution, sewage disposal, road construction and maintenance, control of trading licences, refuse collection, parks and market management, and health education and community training. The NCDC reports directly to the Department of Provincial Affairs.

The functions of Honiara Municipal Authority are more limited than those of NCDC for the much larger Port Moresby urban area. Its direct responsibilities are limited to education, health (including garbage collection and septic tank pumping) and feeder road maintenance. Significantly, as the *Honiara Town Council Development Plan 1988–1992* records,

> it is impossible to intelligently discuss development in Honiara, however, without discussing the sectors outside of the Town Council’s control such as industry, housing, physical infrastructure etc. (Honiara Town Council 1988:126).

Added to these should be water, which is currently provided by the Ministry of Transport, Works and Utilities. As elsewhere therefore, the urban authority controls only some planning functions within the urban area as it has not been able to develop an integrated urban management plan.

In Papua New Guinea the division between economic planning, centred in the Department of Finance, and physical planning in the Department of Lands and Physical Planning, has exacerbated the problems of managing and planning for urbanisation.

> The economists’ approach is creating a development climate that is likely to increase urbanisation, directly against the stated aims of the government, of encouraging rural development and equality of service and infrastructural provision (King 1991:46).

Yet there is no direct conflict between the departments. The problems are essentially those of inadequate integration. The main role of the Department of Lands and Physical Planning has been to ease the provision of land for development projects. The location of trade and industry has largely been dictated by the private sector under the
aegis of the Department of Trade and Industry, with the Department of Lands providing a back-up role by providing land.

The situation in Papua New Guinea has been complicated by urban and physical planning functions being shifted between departments since independence. Between 1979 and 1983 urban planning was dealt with by the Departments of Urban Management and Urban Development. From 1983 to 1985 it came under Physical Planning and Environment; in 1985 it was briefly moved to the Department of Housing and late in that year to the Department of Lands and Physical Planning, where it remains (King 1991). As the structure of economic planning has also coalesced and divided (especially following the dissolution of the National Planning Office in 1988) and personnel have moved between departments or left the public service, the possibility of coordinated planning has been extremely limited.

A somewhat similar situation is apparent in Solomon Islands at least in terms of economic planning. The national planning office has been dissolved and economic planning has been fragmented between different departments. Again these divisions have discouraged the monitoring of development and development programs, let alone policy formation.

Neither in Papua New Guinea nor Solomon Islands are there national development plans (though these have existed in the past), and only in Solomon Islands has there been an attempt to develop provincial plans. Five-year plans were produced for each province in 1988 but were never officially approved by the national government. In Papua New Guinea there have never been development plans that have given much consideration to physical planning or regional development, and fragmentation of the National Planning Office has further weakened the tenuous links between economic and physical planning.

In Solomon Islands, although there is no national development plan, the ruling People’s Alliance Party formulated a Programme of Action for 1989–93 which focused on national economic development, emphasising economic growth and privatisation and seeking to move towards industrialisation. The only element of Phase One of this plan relevant to physical planning and service provision was the
intention to ‘identify the general housing constraints for employees and compile a comprehensive national home-ownership scheme’ (People’s Alliance Party 1989:21) and, subsequently, to introduce a Home Finance Corporation and revise housing policy (see Chapter 8). In both countries therefore the links between economic and physical planning are minimal.

There have been some attempts to formulate a national urbanisation policy in Papua New Guinea but most of these are now history. In 1977 the National Planning Office produced a policy document, *Managing Urbanisation in Papua New Guinea*. It sought to develop regional centres in opposition to Lae and Port Moresby, but never gained formal government approval. The 1982 National Public Expenditure Plan similarly emphasised growth centres; over time there has been increased focus on a limited number of regional centres. Subsequently there has been an array of urban plans, mainly for Port Moresby, but there has not been much action on these plans nor have they been integrated into any overall policy framework. Such plans for Port Moresby alone include the Waigani City Centre Plan (1982), Port Moresby Transport Planning Study (1982), Port Moresby Interim Plans (1984 and 1986), Port Moresby Downtown Local Plan (1984) and Boroko Commercial Centres Study. Many others exist for other urban centres (King 1991). Such a plethora of plans is less evident elsewhere in Melanesia, but the overall framework is similarly lacking.

**Financing**

In Papua New Guinea finance for urban development is primarily allocated from the national government to the NCDC or to provincial governments, though there is also direct expenditure through line departments (most obviously Housing) and to existing town authorities. Outside the National Capital District the principal responsibility for urban finance lies with the provincial governments. There have been several problems with this arrangement.

- There has been substantial mismanagement and maladministration in provincial governments, to the extent that most have been suspended at one time or another.
- Revenue collected by provincial governments in urban areas, for example from land rates, vehicle taxes and so on, is not necessarily spent in the urban areas. Sometimes this disinterest
stems from perceptions that such funds would be wasted on migrants from rural provinces.

- It has been regularly argued that investment in urban infrastructure would stimulate greatly increased rural–urban migration.

- Actual revenues, especially of town authorities, have been significantly less than expected. This has resulted from poor collection of fees and difficulties in dealing with provincial government (ADB 1992:29).

In general therefore urban authorities are underfunded for the tasks that they are expected to perform.

Though the actual funding of urban authorities in Papua New Guinea is unusually complex because of the different levels of government, a substantial proportion of urban income is generated locally. In 1989 the NCDC drew income from land taxes, retail sales taxes and water and sewerage fees; some 85 per cent of total revenue was raised from taxes and fees within the city (Axline 1989:29). By contrast in the next largest city, Lae, just over 50 per cent of the (much smaller) urban income was generated locally.

Lae presents a clear example of the difficult situation faced by urban local governments in Papua New Guinea following the creation of provincial governments. Sources of financing previously available under the Local Government Act of 1963 (principally the imposition of rates on urban land) were taken over by the provincial government. It appears that there was no corresponding reduction in the activities for which the urban authority was responsible. There is no established proportion of provincial income generated in the city transferred to the Lae City Authority, as the provincial government is consciously pursuing a policy of using urban-raised revenue as a means of financing rural development. Other taxes which had been originated by the city of Lae, a tyre tax and a fuel tax, are now also collected by the provincial government (Axline 1989:32).

Though 'it is generally felt that the decline in revenue and increase in demands have led to a deterioration in urban infrastructure and services', and hence that more of the revenue generated by the Morobe Provincial Government in Lae should be spent there, 'discussion of this possibility must take into consideration Morobe Provincial Government’s expressed policy of developing rural areas using
revenue generated in urban areas, and the impact of this policy on reducing the rate of migration from rural to urban areas’ (Axline 1989:33). It was estimated that in 1991 as much as 7.5 million kina was generated within Lae from fees such as liquor licences and vehicle registration but spent elsewhere in the province. Smaller urban centres have much less ability to generate local finance and economies of scale decline sharply. Even medium-sized towns like Goroka and Rabaul do not have the ability to be self-financing, even with a greater shift to user-pays principles and better financial management.

The outcome of financing difficulties is that necessary tasks of urban management are not completed. In Lae, the provincial government has allocated relatively little finance to the urban area, hence a number of management functions have not been undertaken. There has been recent pressure on both the provincial and national governments to develop a system whereby all money raised in Lae would be kept in the city (Post Courier, 8 October 1992). There may be some correlation between the lack of urban services and the serious urban violence that occurred in October 1992, when fighting between groups of settlers and longer-established Morobe populations resulted in several injuries and the destruction of many homes.

Since independence, Lae has gone from a booming industrial and commercial city to a rundown outback town ruled by a minority with little respect for the rule of law and the welfare of the community as a whole (Post Courier, 6 October 1992).

There are numerous examples of similar, if not so extreme, situations throughout Melanesia. The new Mount Hagen Town Authority reported that in its first full year of operation (1990) it could not implement any project because all projects submitted in the budget were not funded by the Provincial Government. Further the small grants received from both the National (K300,000) and Provincial (K200,000) Governments were insufficient for any new projects. The only project which was undertaken was the complete upgrading of the Public Toilet near Hagen Coffee Factory at a cost of about K8,000 (Mount Hagen Town Authority 1991:9).

In this case, and in that of other urban management institutions such as the Home Finance Corporation of Solomon Islands (see Chapter 8), revenue is almost wholly absorbed in maintaining the institution
The limited availability of finance for urban management is compounded by the manner in which finance is allocated by national and provincial governments, and by different line departments. The task of management is fragmented and complicated in a region where bureaucratic processes are usually relatively slow and inefficient. Again typical of this kind of situation is the case of Mount Hagen where the Town Authority’s Annual Report recorded that

In Mount Hagen, as elsewhere, payments that are collected such as for sewerage and garbage, are generally in arrears and therefore generate substantially less revenue than what is anticipated (and what is necessary to maintain functions). By mid-1992, little more than three years after it had been established, the Authority had outstanding debts of 500,000 kina in land rates and service fees for sanitation and garbage. The debtors included businesses, churches and individuals (Times of Papua New Guinea, 18 June 1992). This situation is typical of urban authorities because they lack the resources and administrative skills to ensure that debts are paid promptly or even at all.
Crisis management

Despite the visibility and gravity of urban service provision problems, solutions have usually only arisen in response to crisis situations. The responses have therefore only been partial solutions, and often very expensive. They have not addressed the wider problems of urban service provision.

Water supply and urban road maintenance provide the most dramatic examples. In Port Moresby the previous government’s decision to construct the Poreporena freeway at a cost of 62 million kina became the subject of a parliamentary inquiry, while in Solomon Islands there is an existing proposal to construct a four-lane highway through Honiara. Water supply crises in Port Moresby during 1992 led the NCDC to seek cabinet approval for a 70 million kina loan to implement an improved system, and to contract a 2 million kina 18-month study of management of the water supply system until the year 2012 (Post Courier, 6 August 1992; 20 August 1992). Urban management in Melanesia has becomes crisis management, rather than the good housekeeping that might avert the worst crises. It emphasises grandiose solutions rather than planned and monitored development.

Even in Vanuatu where urban problems are still on a manageable scale, there is increasing awareness that the speed of urbanisation in neighbouring countries has led to a breakdown in the capacity of existing institutions to manage growth and change.

The significant feature of urban problems is their urgency. If not addressed they will worsen very rapidly and be far more difficult to overcome. The example of Melanesian neighbours such as Papua New Guinea is a stark reminder of what could happen if moves to improve the situation are not made soon. A coordinated urban plan, involving all the relevant government groups and including all the areas of interest such as housing, water, sanitation, health, education and other social services, would be the first step in producing a realistic improvement of the situation. This plan should include input by relevant NGOs, including the NCW [National Council of Women], the Vanuatu Christian Council, and the National Council of Chiefs (UNICEF and Vanuatu Government 1991:76–7).

In Fiji a recent United Nations report commissioned by the Ministry of Housing and Urban Development (UNDP and UN Centre for Human
Settlements 1991) identified 12 key urban policy issues which require specific attention and resolution. No formal and coordinated urbanisation policy exists although the need for one was recognised in the *Ninth Development Plan* (Fiji, Central Planning Office 1985). Four major issues facing urban managers in Fiji are summarised here with a fifth, the land question, considered in Chapter 7.

- **Local government**
  The management of human settlements in Fiji is complex, with 10 constituted local government bodies answering to the Minister of Housing and Urban Development, rural local authorities established as sanitary districts under the Ministry of Health, provincial councils responsible for Fijian Affairs under the Fijian Affairs Board, and rural advisory councils responsible to the Ministry of Fijian Affairs and Rural Development. This tripartite ministerial responsibility for local government is confusing and in need of rationalisation. Around the larger towns rural local authorities are attempting to administer parts of adjoining urban areas. In such cases the UN report recommends establishment of new municipalities or extension of existing urban boundaries. The possibility of placing all local government functions under a single ministry has also been raised.

- **The public, private and informal sectors**
  The public sector, through the Ministry of Infrastructure and Public Utilities, provides roads, bridges, sewerage and water supplies. Greater private involvement in some of these services is anticipated with the likely formation of a water supply and sewerage corporation as a first step. The informal private sector in Fiji plays a significant role in the provision of low-income housing (Walsh 1984; Suva City Council 1986; Bryant 1990), transport and roadside retailing. The extent to which such activity can or should be managed has been under debate in many parts of the developing world for many years and in Melanesia since the mid-1970s (Fitzpatrick and Blaxter 1976).

- **Investment in urban services**
  The traditional supply of urban services by government has been only partially based on user-pays principles: consumption charges are often subsidised and have not included a capital recovery component. Improved means of cost recovery are likely to be applied to all essential urban services in the future but are also likely to come up against factors which have made this aspect of urban management problematic in Melanesia. Large arrears in
rental and mortgage payments for publicly provided housing are commonplace, especially in Suva (Bryant 1992).

- **Financing urban development**
  Urban infrastructure in the Suva-Nausori metropolitan area is likely to cost some F$35 million up to 1996, with a further F$42 million required in the period 1996–2001. Almost all such expenditure will have to be provided from sources external to local government because of the small rateable base and limited capacity to service loans of this size. Suva City Council’s rate income for 1990, for example, amounted to a budget forecast of F$5.4 million (Suva City Council 1992). Among the wide-ranging recommendations made by the UN study is the proposal to constitute two new urban districts between Suva and Nausori and to form a metropolitan government comprising Lami Town, Suva City, Nausori Town and the two new urban districts. Initially it is proposed that existing legislation permitting the formation of joint committees between local councils be used as the basis of the new metropolitan government. Funding would be by contributions from the municipalities involved and various ventures undertaken on behalf of the councils. This is not a very convincing fiscal basis on which to establish metropolitan government, given the already apparent shortage of public funds. Another recommendation calls for the taxing of Fijian villages which fall within the urban boundaries and their subjection to municipal by-laws. Such widening of the local tax base appears logical, but controls of this kind strike at the heart of the customary landholding system and are probably politically untenable at this time.

The future of urban management in Melanesia is very much bound up with the ability of urban authorities to become financially self-sufficient. The potential for achieving this depends on a complex set of factors at the national, provincial and local level. The actual and potential sources of revenue are taxes (including licences), fees (for service provision) and grants. Taxes and fees have proved difficult to collect and grants have rarely been forthcoming.

Successful implementation of urban management policies depends on at least two factors: technical simplicity and sufficient resources. A technically simple policy with a lot of resources devoted to it will be more likely to succeed than a complex policy with few resources devoted to it. Developing countries like those of Melanesia tend to
score badly on both counts; they need complex policies, and have limited resources.

Policies involving complex techniques, seeking large changes, involving many agencies, seeking to achieve several broad goals over a long period are less likely to succeed—or will need more resources devoted to achieving them. Such policies have made up the ‘quick-fix’ Melanesian solution but have often been impossible to implement successfully. Physical planning and urban management are limited in much of Melanesia, and where urban planning has taken place it has not surprisingly focused on physical planning. Social service provision and planning has taken second place. The task of achieving more integrated urban development in Melanesia remains a long way off.

“In general urban authorities are underfunded for the tasks that they are expected to perform”
National development plans and policies in Melanesia have only infrequently been concerned with the spatial distribution of the population. Where rural and regional development issues have arisen, though, there has sometimes been very strong opposition to urbanisation and especially to squatter settlements. Much of this is a result of prejudice rather than rural development policy. Squatter settlements are widely perceived as haunts of the feckless unemployed, though there is little evidence of this. It is apparent that a significant proportion of employment in settlements is in the informal sector, especially in Papua New Guinea, and this is rarely regarded as appropriate or genuine employment.

A correlation between urban crime levels and recent migration is frequently voiced but also lacks demonstrable proof. Available surveys, at least in Port Moresby, suggest that this correlation was invalid in the 1970s (Connell and Curtain 1982). It is probably equally invalid now (Goddard 1992:21), but the lack of data in support of it did not prevent it being made (somewhat gratuitously) then, and in subsequent years. It has been claimed that in Solomon Islands, ‘the drift towards the towns with its concomitants of shanty towns and urban crime is less marked than in Papua New Guinea or Fiji’ (Potterton 1979:24).

*There has been minimal support for the rights of those in settlements, other than from the settlers themselves*
Settlements and urban crime

There is still no evidence that crime levels or gang membership are correlated with settlement residence (Goddard 1992; Nibbrig 1992). It is not implausible however that social disorganisation and crime are functions of substantial inequalities in access to land, housing and other services in the largest cities, hence their greater significance in Papua New Guinea. Some criminals themselves have pointed to crime being a response to both inequalities and their perceptions of corruption and other offences that have gone unpunished elsewhere. The implicit definitions of crime in the perceptions associated with squatter settlements exclude white-collar crime, political corruption, and so on. At the same time, ‘a constant sabotage of facilities in the low income housing areas adds to worse conditions in these localities. These unlawful actions are deliberately caused to show frustration with lack of attention by the local authority’ (Aruga 1992:3–4). Crime therefore tends to exacerbate the deprivation experienced in settlements, and to make them a source of greater concern among other urban residents.

Settlements are widely perceived as not only associated with higher unemployment and crime levels, but as inappropriate phenomena in capital cities and disfigurements of the urban landscape. The early history of opposition to settlements in Papua New Guinea is reviewed by Connell (1983a). Even before independence in Papua New Guinea (much more so than elsewhere) there was direct opposition to urban growth. It has been argued that urban crime has increased to such unacceptable levels that it might only be reduced if the major towns were closed to those who were not employed, or had no other valid reasons for being there. As migration to towns increased in volume there were suggestions that a pass system be introduced; as early as 1971 the Morobe District Councils Conference wrote to the United Nations requesting that Article 13(1) of the UN Universal Declaration of Human Rights be changed to enable passes to be introduced. In 1975 an Urban Migration Conference sponsored by the Eastern Highlands Provincial Government made a series of recommendations including

- \textbf{Recommendation 8.} That police should set up permanent road check points at provincial borders leading in to major centres to prevent people with no good reason from entering the centre.
Recommendation 29. The government should legislate every resident to carry an identity card.

It was argued by the Eastern Highlands Provincial Government that 'while the most useful purpose of identity cards would in fact be for identification, it was also thought that to use them in an attempt to control urban migration would not only be valuable but would be fully accepted by Papua New Guineans'.

While nothing came of these early proposals, by the end of 1977 opposition to migrants in the North Solomons (Bougainville) Province had intensified to the extent that at least three groups of squatters were repatriated by plane from the North Solomons to the New Guinea mainland (Talyaga and Olela 1978), despite the fact that the national constitution provided for freedom of movement within the country. The North Solomons Provincial Government (along with Morobe and East New Britain Provinces) sought to introduce compulsory identity cards and restrict those seeking work to a maximum of 30 days in the province. As Denoon has observed,

the attractions of closed towns is very obvious...With one bound we rid ourselves of poverty, ignorance and disease; modern towns shed their nasty reminders of underdevelopment...Closed towns are the millennial dream of the property-owning, rate-paying middle class (1980:280).

In Solomon Islands the problems of urbanisation are less evident than in Port Moresby, and the response to squatter settlements has been less dramatic. The only direct opposition appears to have been in 1981 when the Cabinet decided to remove the long-established Fishing Village (Vaivila) settlement from the foreshore on the grounds that it was a health problem, overcrowded, unsightly (in a capital city) and had security problems. In the event the settlement was never relocated (Connell 1983b). Other concerns have been more generalised, perhaps partly because settlements in Honiara are less visible, smaller and with higher housing standards than in most other parts of Melanesia.

There has nevertheless been considerable criticism of the national constitution’s guarantee of freedom of movement. In 1988 Prime Minister Solomon Mamaloni commented that individual freedom of mobility had been 'extensively abused by intruders moving in to settle on other people’s land without the proper consent of landowners'
(quoted in Chapman 1991:282). There has been no direct confrontation with settlements.

The Honiara Town Council Development Plan has as its principal objective ‘To control the growth of Honiara’s resident and visitor populations in order to avoid social, economic and environmental disruption’ (Honiara Town Council 1988:127). Strategies to achieve this objective included: seeking a balance by reducing immigration; supporting national government policies providing for a more even distribution of employment opportunities throughout the country; increased use of planning regulations; and encouraging family planning and publicising the desire of the town council to limit population growth. No particular plans were elaborated to implement these strategies, hence it is perhaps not surprising that the second objective was ‘To plan for future population growth’ (Honiara Town Council 1988:127). The vagueness of objectives associated with reducing rural–urban migration, and with urban management in general, are to some extent indicative of the limited resources available to urban authorities for managing the process of development.

In Papua New Guinea, as towns have continued to grow and urban crime has increased (in part, at least, because towns are much larger) opposition to urbanisation has continued from both urban authorities and influential leaders. There is, however, as there has always been, a paradox.

Everyone blames the squatters for the sudden increase in crime. Some have petitioned the government to get rid of these settlements, yet politicians visit these same places at election time with money, beer and rice bags to win their vote (Times of Papua New Guinea, 25 October 1984).

Most of Papua New Guinea’s urban authorities have sought at different times to eject at least some squatters and/or the unemployed. In 1984 Madang sought to eject squatters because of law and order problems and land shortages, using the argument that settlements were on land required for gardens, urban expansion and resettlement of the local Madang population. At the same time a committee of inquiry recommended that the provincial government carry out a review of all government land with a view to creating an integrated land development scheme and making provision for controlled
settlements for low income earners and unemployed people (Times of Papua New Guinea, 5 July 1984).

It proved impossible to eject squatters, and the more positive recommendations on integrated land management were equally unsuccessful.

More recent attempts elsewhere have produced similar results. In mid-1991 the Morobe Premier sought to eject all illegal settlers from Lae.

My plan to eject settlers is a genuine one for the sake of my people who want a trouble free environment for their children...As for Papua New Guinea which has a large area of land, I do not see why people should move from province to province. I am sure there are better things to do in their own villages or towns (Times of Papua New Guinea, 6 June 1991).

Not surprisingly this was not the settlers’ perception.

At the same time in Rabaul illegal settlers were to be evicted for similar reasons. The East New Britain Premier stressed that the exercise was being undertaken for the good of both the province and the settlers.

We want to help the settlers so that they can have dignity and that they can grow their own cash crops in their respective villages. Villages are still the best and least expensive places to live. Furthermore we want settlers to understand that they were not born to be slaves in towns. However they are making themselves slaves (Times of Papua New Guinea, 29 August 1991).

There were problems with the potential eviction, since some squatters had complained that because they were public servants they should not be evicted.

A similar situation occurred in Mount Hagen a year later when a group of residents urged the Mount Hagen Town Authority and the Provincial Government to evict squatters who were a nuisance. They complained that in the area they lived, stone and bottle throwing at their houses were a constant thing over the last few years, including throwing human waste in plastic bags...They said some of those living in the area were senior public servants and company executives (Post Courier, 13 October 1992).
In October 1992 squatters were ordered to leave the Garden Hills settlement in Port Moresby to make way for formal residential development. At Goroka in January 1992, 50 squatter houses in two different locations were raided and set on fire by police after settlers refused to move after being given eviction notices by the Eastern Highlands Capital Authority. The policy, which was to be extended to other settlements, was a combined action by the urban authority, the provincial government and the town planning board to ‘clear up’ Goroka, where half the population was reported to be squatters from other provinces (*Times of Papua New Guinea*, 23 January 1992). In Goroka, as elsewhere, no rationale was provided for ‘cleaning up’, such as whether there were problems of some kind associated with the settlements or whether the land was required for some other function.

The former Governor-General of Papua New Guinea, Sir John Guise, exemplified the widespread concern.

A state of emergency for the National Capital District is long overdue. It is in the city of Port Moresby where ordinary people live in constant fear of their lives and property. We cannot and will not contain the criminal situation in this land unless the government stops the urban drift of people from the villages. The government needs to be courageous in weeding out the unemployed in Port Moresby as well as in other urban centres back to their home provinces and villages now, not in 10 years time. People migrating to the NCD believe through their legal advisers that they are free to travel everywhere. However the grave mistake these people make is to sit on land, customary or government owned, as if they are the owners and ably assisted by their member of parliament to flout the land laws of this nation. This becomes part of the law breaking element by the criminal society (*Times of Papua New Guinea*, 3 January 1991).

The list of similar statements, attempts at eviction of squatters and opposition to rapid urbanisation in Papua New Guinea is a long one. Though opposition has sometimes been justified in terms of rural development, it has come mainly from established urban residents, fearful of crime and occasionally concerned over land shortages. But it has been possible only in exceptional situations to translate opposition to settlements into removal of settlers (in part because of both constitutional problems and the legality of settlers). It is probably significant that even in an area where there has been an
enormous amount of debate it has not been possible anywhere to formulate an effective policy to discourage or remove squatter settlements.

There has been minimal support for the rights of those in settlements, other than from the settlers themselves. In 1990 the then Papua New Guinea Attorney-General, Bernard Narokobi, suggested that the government consider some social security scheme as a possible solution to curbing the growing urban crime problem.

We should provide some sort of social security benefits to the unemployed who have sincerely tried but cannot find employment. The dole would be restricted to second and third generation citizens born in major towns and cities (Post Courier, 4 December 1990).

Though Narokobi restricted this assistance to long-established residents, he was strongly criticised for proposing a policy that might encourage more migration rather than focusing on encouraging rural development. However his is a rare foray into the complex issue of urban welfare provision. In general, pervasive opposition to urbanisation has delayed and discouraged the development of coordinated plans for urban management.

### Settlements are symptoms

Opposition to urbanisation has focused primarily on its symptoms—the expansion of squatter settlements—and rarely (obviously, in part, because it is much more difficult to do so) on the rationale for rural–urban migration and urban growth. While the effects of increasing urbanisation (such as settlements) are often seen as social problems, it is increasingly apparent that their causes are economic, a result of emerging inequalities between urban and rural life.

Authorities or coercive controls over migration address themselves to the symptoms, not the causes, of resource misallocation and regional disparities. To change the structure of migration and urbanisation it is necessary to change the broader strategy of economic development. A decade ago Denoon reviewed the rationale for closing Papua New Guinea towns. He concluded that ‘urban problems may be the manifestation of rural underdevelopment’ (1980:280). ‘The mere closure of the towns will merely complicate the
problem by obscuring it’, he suggested (1980:280), and would therefore be more likely to worsen the rural poverty and stress rural–urban inequalities.

Consequently, despite some attempts to establish authoritarian policies, debate over migration policy has been confined to the possible influences of various corrective measures on the symptoms rather than the causes of migration, and there is no indication that the range of the debate will broaden in the future. However, it is perhaps significant that it is in Papua New Guinea that urban problems have been closely linked to rural development. Papua New Guinea’s cities contain many of the squatter settlements of Melanesia. Urban–rural income and welfare inequalities are perhaps the greatest in the Pacific, and opportunities for rural development are extremely limited in a number of western Papuan and Highland areas, which are the principal source areas of migration.

In 1981 the then Minister for Labour and Employment, Mr Jacob Lemeki, stated:

As the government believes that the major determinant of rural–urban drift is due to rural–urban imbalance of wages, incomes and services, the government believes that one of the most effective means of getting people to remain in rural areas is through rural development...Less developed rural areas are given special attention in this process...Agricultural, forestry and mining projects are intended to create employment opportunities in rural areas, apart from other considerations. Development of rural transport infrastructure, provision of health, education and agricultural services are some of the central areas of the government’s rural development strategy. Family planning is another long-term policy where provision of services is exercised in Papua New Guinea...A lower birth rate of course means less pressure on the land and so less of a ‘push’ for people to migrate to urban areas (Lemeki 1981:6–7).

In the last decade little has emerged from such enlightened policy. Rural development has been limited and squatter settlements have grown. But the statement retains its validity for Papua New Guinea and for Melanesia in general.

The extent to which disinvestment in urban services, as opposed to straightforward opposition to settlements, is a disincentive to rural–urban migration is nowhere clear, least of all in Melanesia. The
The most acceptable conclusion appears to be that, in Papua New Guinea at least, ‘the government’s control of urban migration through budget-cuts on urban services to date does not seem to have any effect on the continuing migration into the urban areas’ (Aruga 1992:13). A more probable deterrent to rural–urban migration would be rural development: for example in Papua New Guinea, the support for rural cash crop prices announced in November 1992 may encourage rural population retention more effectively than penalising migrants. However while urban wages remain high, industrialisation is encouraged. Some rural areas are distant from market access, services are concentrated in cities, and even the most successful rural development policies can only slow rather than reverse the extent of rural–urban migration.

The institutional response (or lack of response) to urbanisation in Melanesia has therefore been broadly similar though more limited than that in other developing countries. Despite official concern about managing urbanisation, alongside an expressed focus on rural development, there have been few real attempts to constrain urban development. The main factor limiting urbanisation has been the existence of reasonable income-earning opportunities in many rural areas.

The options available to Melanesian governments include increasing expenditure on rural infrastructure and development, improving rural–urban terms of trade, developing wage, housing and population policies, and even instituting migration passes and repatriation schemes. Despite some economic policy orientation towards rural development, expenditure in urban areas is quite disproportionate to urban population sizes. Only the exceptionally crude ‘last resort’ repatriation of some migrants to the North Solomons, and the physical destruction of some settlements, suggest some measure of determination to stem urbanisation. Yet without rural incentives such draconian political measures are of limited utility and merely create dissent. What is perhaps surprising is that policies to mitigate urban bias and too rapid urban growth have not been possible in conditions where most politicians have extremely strong rural economic ties (especially in Papua New Guinea and Solomon Islands), where an alienated urban elite is not yet apparent, and where migrants are at least as conservative and poorly organised as
elsewhere and hence place limited pressure on urban service provision. There has been little planning of urbanisation and too few up-to-date studies evaluating the problems of urban development and the opportunities for more effective policy formation.

*Settlements are widely perceived as not only associated with higher unemployment and crime levels, but as inappropriate phenomena in capital cities and disfigurements of the urban landscape.*
Underlying many of the problems of urban planning and service provision are issues concerned with land tenure and the allocation and resumption of particular parcels of land. In many urban areas, especially in Papua New Guinea but even in some small Solomon Islands urban centres, there is an acute shortage of land. Land shortage is so severe in Rabaul that combined with the volcanic threat, it prompted, more than a decade ago, consideration of other sites for the town. In Port Moresby traditional ownership of land within the city boundary has prevented its use and made service provision in adjoining areas more expensive. Almost everywhere in Papua New Guinea land acquisition has been a problem in every facet of urban management. The National Housing Commission often been unable to find land for housing, and the Waterboard has had difficulty finding land for pumping stations, treatment plants and sewerage disposal areas. In many towns, including all four capital cities, there are problems in locating garbage dumps; informal and illegal dumping is one outcome. Although these problems are most severe in Papua New Guinea, they exist throughout Melanesia, and in the absence of compulsory land purchases, make urban planning unusually difficult.

Customary ownership

Papua New Guinea In some circumstances urban land issues are complicated by the structure of traditional ownership. The Motu-Koitabu people, the traditional residents of the Port Moresby area, are the sole owners of customary land constituting at least one-third of the city’s total area,
and Motu-Koitabu villages such as Hanuabada are incorporated into the National Capital District area. As the city continues to grow rapidly, this creates probably the most difficult context for urban management anywhere in Melanesia.

As in most larger towns in Papua New Guinea, the land on which Port Moresby is built comprises government freehold land, government leased land, private and customary land. But because of the city’s long history, its location adjacent to traditional villages, and its size and recent growth, the problems attached to land in Port Moresby are more severe than elsewhere. The National Capital District contains areas of both unutilised (or under-utilised) government land and customary land. Because areas of customary land are scattered within the city, many development proposals may involve customary land (Lea 1983). As urban growth continues this situation occurs increasingly frequently.

The customary landowners in Port Moresby have particular concerns in relation to their land. First, they fear that they are gradually losing possession of it and have no way of protecting it against further alienation. Second, they often feel they have no control over the migrants who have settled on their land as there are no formal agreements between the parties. In addition, sometimes only one person in the landowning group has gained from the ownership (by giving permission for migrants to settle and then collecting rent from them) while other members have missed out on the benefits. In many cases tension has developed between migrants and the Motu-Koitabu people on whose land the migrants are living, and there have been occasional confrontations between the two groups. Neither in Port Moresby nor anywhere else is there any evidence that squatters forcibly occupy land against the wishes of the traditional owners—such a procedure would encourage violence. However, as time has gone by, and settlements have expanded, owners have sought to repossess land or secure a new rental agreement. This has led to problems. There is no easy way of removing migrants should landowners wish to do so, and migrant groups tend to grow in number and size.

Third, it is difficult for the Motu-Koitabu to lease their land, either to members of their own group or to others, for business ventures or for any kind of economic or industrial development. Often the owners
as a group are unable to reach agreement. Furthermore, customary land cannot be used as security for borrowing from any financial institution, and banks cannot take over customary land if a borrower defaults on a loan.

As a result the Motu-Koitabu people have not been able to take advantage of their most valuable asset, their land, and so have not benefited fully from the rise in land values that the city has brought (Morauta et al. 1986). Their elected representatives in the national parliament have occasionally recommended that they demand more. In September 1992 the former Pangu Pati Deputy Leader, Jack Genia, stressed that the main beneficiaries from urban development were not the traditional landowners, who 'have practically been displaced within their own land' to become second-class citizens, but companies and even churches. Genia noted that some churches have acquired so much material wealth through ownership of some of Port Moresby's highly valued portions of land and properties. This is a far cry from the churches' original mission. When churches should be helping to overcome social ills of the displaced people, they are investing millions of kina in real estate properties which share boundaries with displaced landowners living in shanty towns and settlements (Post Courier, 25 September 1992).

He urged the Motu-Koitabu people to fight hard for their rights, to reclaim unused land now owned by others and to claim compensation for their displacement within the National Capital District.

However, few mechanisms are available for the Motu-Koitabu people to exert their rights and claims, causing them enormous frustration. At the end of 1992 they sought the removal of all those people living illegally in the capital city. A meeting of customary land owners indicated that many had reached 'boiling point' at seeing their land occupied by illegal squatters, many of whom had no work in the city (Times of Papua New Guinea, 30 December 1992). The absence of formal mechanisms to deal with this perceived problem, and especially the absence of a democratic political system in the capital below the national system, prevents responses other than incomprehension, despair and occasional violence.
Unsatisfactory resolution of land issues in Papua New Guinea worsens the problems of urban management. A recent example occurred in Port Moresby, when the Department of Health sought to develop a psychiatric hospital.

Although about K211,000 was paid last year to the Iarogaha clan of Korobosea village as payment for the land on which the Laloki Psychiatric Hospital and the Department of Primary Industry Station at Laloki are located, no Certificate of Occupancy has yet been given to the Health Department. The Certificate of Occupancy will prove who the rightful owners of the land are. The payment was paid by the national government in June. According to an official from the Lands Department, the department was asked to refrain from giving the Certificate of Occupancy to the Health Department because of a land dispute that was going on between the Koiari and Elevala villagers as to who were the real owners of the land. However this was later solved through a Village Court hearing which led to payment being made to the Iarogaha clan last year...Due to the absence of a Certificate of Occupancy, the Health Department cannot consider building staff houses (Times of Papua New Guinea, 28 January 1993).

The combination of disputed land ownership, increased claims for compensation from landowners (who often perceive this to be the most valuable source of income) and mismanagement have slowed the process of urban development and rendered it much more complex and expensive than it is in most other countries.

Urban villagers such as the Motu-Koitabu people may be disadvantaged in ways other than land alienation. Although they are often perceived as having free land to build on close to the city, gardens in the hinterland and good jobs in town, the truth is often different. The people who live in urban villages include some of the poorest people in the National Capital District. They tend to have larger households, lower incomes per resident and more households without wage earners than people in other types of residential areas. Their position is closest to the migrant settlers. Poverty among the Motu-Koitabu is directly related to the fact that their land is in town; they are permanent urban residents and have nowhere else to go when they are old, poor, sick or unemployed (Morauta et al. 1986). Every sick or elderly Motu-Koitabu lives in the National Capital District, as does every unemployed youth and every child without a place in school. It has been argued that the majority are unemployed
Their land is little help to them. They have lost all their fishing grounds, and nearly all land suitable for agriculture.

The villages within the National Capital District are poorly provided with urban services. None of the 10 Motu-Koitabu villages has an aid post or clinic that is easily accessible. There are various community schools but not enough places to accommodate all school-age children. Garbage collection is very poor, leading to health hazards and untidiness. Appropriate recreation facilities are lacking and no playing fields are within easy reach. Many migrant settlements are in a similar situation and the needs of both of these groups are often not being met to the same extent as those of other groups within the city. The problems of the Motu-Koitabu are not dissimilar to those of urban villagers in other towns, such as Matupit in Rabaul, but there are fewer urban villages in other towns and the problems are usually of a lesser order.

Solomon Islands

In Solomon Islands and elsewhere in Melanesia, the situation is somewhat different since there is relatively little customary land in the urban areas. Part of the land in Honiara had been alienated for use as a copra plantation and purchased by the government at the time of independence. The inland area was obtained by compulsory purchase in 1947. There have been continuing disputes with landowners about land for water supply and a proposed dam behind the town. There is a small piece of customary land within the town, and urban expansion has extended onto some customary land to the west. Attempts to extend physical planning legislation to cover the area owned by the government were twice defeated in parliament in the 1970s. The Lands Department manages all urban land directly.

Vanuatu

At independence in Vanuatu all alienated land returned automatically to its original customary owners, including government land (although the government had owned very little land in the colonial New Hebrides). Vanuatu’s constitution allowed special provision to be made for urban land, and the new government adopted a policy that would allow the government to declare that some customary land would become public. This meant it would be managed, but
not owned, by the government or by statutory bodies set up for that purpose. The customary owners would be involved in the management and share part of any revenue raised. It was to be rather like a compulsory lease, with the amount of rent paid to customary owners being dependent on revenue collected.

Port Vila, with its boundaries slightly amended, was declared public land on Independence Day, and the Vila Urban Land Corporation (VULCAN) was set up to manage it. The idea was that the Corporation would create substitute leases to replace the freehold titles voided at independence, and pay a share of the rent to the customary owners. In practice the customary landowners of Port Vila (the villages of Erakor, Mele and Pango) were influential in government and well represented in cabinet. The policy was consequently amended so that all the rents raised by the government from public land, not just a share, would go to the owners after VULCAN’s administrative costs had been covered. However they could not decide how the money should be divided up between the three villages. Five years after independence hundreds of thousands of kina were accumulating unspent in VULCAN’s bank accounts while landowners were deciding how to divide it.

The urban land corporations in Port Vila and Luganville have now been dis-established and their functions assumed by two Urban Land Leases Selection Committees made up of representatives from the Lands Department, the Survey Department and the Physical Planning Unit (and/or municipality officers). Four petitions from the customary owners contesting the declaration of urban public land (including one from the Shepherd Islands) have been declared legal until a court decides otherwise but remain unsettled regarding the matter of compensation payable. Disagreements persist among the groups involved (Halliburton 1992).

Fiji

The position of land in Fiji is more complicated and quite different from that in other parts of Melanesia (Overton 1992). Fiji still has private freehold land that can be bought and sold by non-citizens, but the two largest categories of land are ‘Native land’ (customary) and ‘Crown land’ (government owned). Suva, with a population not much smaller than that of Port Moresby, is built on private freehold land and Crown land.
Rural customary land in Fiji is managed in a very different way from that in Papua New Guinea. It is nearly all registered, with the mataqali (family or clan) as the unit of ownership. The process of registration began in the late nineteenth century and is still incomplete. An enormous bureaucratic effort is required to keep the records of the Native Land Commission up-to-date (there are about 340,000 Fijians).

Since the 1940s, Fijians' rights to sell and lease their land have been compulsorily transferred to a Native Land Trust Board, a statutory body managed and staffed almost completely by Fijians. It acts as the agent of the landowners in leases and subdivisions of native land. This land is divided into two categories: 'reserved' land, judged to be needed by the owners for their own subsistence, and 'unreserved' land. If the Board wants to lease reserved land, it must get the written consent of the owners, but it can lease out unreserved land without their consent (although in practice it consults them).

The Native Land Trust Board is a bureaucratic and expensive institution. It automatically takes 25 per cent of the income it receives from leases (provided they do not exceed 6 per cent of the unimproved value) to cover its administrative costs. But this has not been enough, and it has had to seek additional government grants, reducing its autonomy. The Board has also used foreign aid in the form of technical assistance. The payment of rents to landowners supports the Fijian chief system: chiefs automatically get a percentage of the rents. After the Native Land Trust Board and the chiefs take their automatic share, only 45 per cent is left for distribution among ordinary members of the mataqali (Nayacakalou 1971:216).

The Native Land Trust Board was set up as a way of making land available for development, while protecting the interests of its Fijian owners. To do so it had to restrict Fijians' rights to sell or lease their own land. More recently the Board has tried to play a more active role in the land market, as developer as well as agent for the owners. Its business arm, the Native Land Development Corporation, has subdivided and leased out native land. It has also bought government land and subdivided it for middle-class housing and offices in Suva.

The urban operations of the Native Land Development Corporation, particularly regarding the provision of land for low-cost housing on behalf of the Housing Authority, were criticised in a recent United
The way the contracts are agreed between the two bodies has resulted in the Authority being required to pay most of the agreed lot price to the Native Land Development Corporation before completion and sale of the houses, resulting in the Authority having to finance the Corporation’s operations and pay interest costs over the contract period. The Housing Authority calculated that selling lots provided by the Native Land Development Corporation adds almost a quarter to the price charged to the end consumer before adding the Authority’s own mark-up. The report recommended that the government wind up the Native Land Development Corporation and replace it with direct leases of land by the Native Land Trust Board to the Housing Authority and private sector contractors (UNDP and UN Centre for Human Settlements 1991).

At different times the model of the Fiji Native Land Trust Board has been perceived as a solution to urban land problems in other parts of Melanesia, especially for customary land within urban areas. The 1990 annual report of the Mount Hagen Town Authority (1991) recommended the establishment of a Native Lands Trust to administer land on behalf of the landowners as the Native Land Trust Board did in Fiji.

Each of the approaches to urban land tenure in Melanesia has advantages and disadvantages. Everywhere land is, in some respects, a national concern but in each case there are links between land and local government as well. In Solomon Islands there are conflicts, as in Guadalcanal, where the provincial government has supported traditional landowners in a dispute with the national government over land in and around Honiara. Such conflicts pose particular problems as urban growth extends beyond the historical urban boundaries. Broadly the same situation is apparent in Papua New Guinea towns, though in the larger towns and especially Port Moresby it is more complex because of the fragmentation of traditional landholdings and the fact that almost half the total land area is under traditional tenure. In Port Vila difficulties with the leasing of traditional land have led to problems in deciding the level of the rent and its division among landowners. Such a system is prone to manipulation and speculation. The Fijian system has some disadvantages for land-owners, whose rights have effectively gone to the Native Land Trust Board.
Land mobilisation and development

Urban land use planning and mobilisation of land for development involves problems beyond traditional ownership of land and the absence of effective town plans (Chapter 5). Again this has been particularly the case in Papua New Guinea, where schemes developed to increase the speed of access to land have been largely unsuccessful. This is nothing new. According to one source, by 1972 western procedures of land administration in Papua New Guinea had already resulted in a situation where 10,000 leases remained unprocessed (Oram 1976:173).

Because of these kinds of problems in the post-colonial era, the Papua New Guinea government introduced a World Bank-funded Land Mobilisation Programme in 1988. It was principally aimed at

• creating a clear policy and legislative environment to promote investment in land
• enabling customary landowners to participate more in the development of their own land
• transferring land administration responsibilities from the national government to provincial governments.

At the time it was recognised that there were risks associated with the project, including ‘ineffective management of the Land Mobilisation Programme, inability to coordinate and absorb technical assistance, [and the] quality of staff that can be retained or recruited into key positions’ (Papua New Guinea, Department of Lands and Physical Planning 1988:v). Since then these risks have all become real problems: it has proved impossible to mobilise more than a small proportion of the land required for urban and other forms of development, especially on the urban fringes. The Programme did little more than mobilise land for housing the bureaucrats associated with it.

There has been progress in Papua New Guinea with lease-lease back schemes for the mobilisation of customary land. Lease-lease back schemes use the state as lessee to enable landowners and developers to obtain finance for development. In some towns—Lae, Wewak and Alotau—customary landowners have been allowed to sell or lease land for medium-term development. The intention behind this has been to bring customary land adjacent to urban areas into use without it becoming alienated government land. Another scheme
known as ‘direct dealing’ permits customary owners to lease land to Papua New Guinea nationals in accordance with custom and without formal registration (ADB 1992). The Papua New Guinea Government has leased out less than half the alienated land. Little is known of the potential or occupancy of the remainder.

There are enormous problems attached to such schemes and the context in which they operate.

Complex legal and administrative processes for allocating leases and institutional weaknesses including shortage of management and professional skills, poorly developed inter-agency coordination and the absence of a clear policy environment have created backlogs and delays in lease allocation to investors, and delays in the development of all sectors where land transfer is critical. In addition, the traditional system of land distribution by clans is under pressure from a growing and more mobile population. Land disputes exceed the capacity of the mediation mechanisms (Papua New Guinea, Department of Lands and Physical Planning 1988:7).

Any developer of alienated land in Papua New Guinea must apply to the Land Board for a Town Subdivision Lease, and this lease can eventually be sold to individuals. The delay in actually obtaining such a lease may be as long as five years (ADB 1992:38), which slows any pretence at housing development. In other cases title to land may be obscured, as is the case with a large number of government plots, or title to land may be held by an individual or agency that has taken no steps to develop the land and has no intention of doing so. This becomes a particular problem where squatter settlements are constructed on such land or where the land plays no part in urban development, even for recreational use. In still more cases, especially where procedures are slow, illegal dealings are not unusual.

Though land is a relatively abundant resource throughout Melanesia, land tenure has posed problems for national development projects, especially in and around urban areas where demand is greatest. Approaches to land issues have invariably focused on the relatively straightforward task of managing alienated land. But this is sometimes a small proportion of all urban land, and pressures on customary land are constantly increasing.

In a relatively sparsely populated country like Vanuatu the extraordinary situation has developed where it is predicted that no
Further land will be available for urban development in Port Vila within 10 years. Additional land exists in the peri-urban area and there is a procedure via a ‘negotiator’s certificate’ granted by the Minister of Lands whereby terms may be agreed with the customary owners. A lease is subsequently issued by the Rural Leases Selection Committee. Unfortunately, as in so many other land disputes in Melanesia, this procedure demands agreement as to who are the customary owners and what are existing interests in the land concerned. Resolution of such difficulties is unlikely in the absence of land title registration of some kind or even the introduction of freehold title with some inbuilt protection of customary rights.

The acquisition of customary land in the public interest is hard to achieve in Vanuatu at present but new legislation with this objective is close to being passed by parliament.

Government has decided new compulsory acquisition legislation is required and a Bill has been prepared, *Bill for the Compulsory Acquisition of Land Act, 1989*. This draft legislation appears to be a viable option for acquiring land for urban development: The definition of ‘public purposes’ for which acquisition would be made, appears to be broad enough to encompass urban development. Also the draft Bill provides for due notice of intention to acquire land, due investigation, assessment of compensation which includes an appeal process, and allowance for the return of land to the original owners if it becomes unwanted for the purposes for which it was taken. An apparent shortcoming is the lack of requirement for an attempt at voluntary acquisition to be made (Halliburton 1992:67).

The inability to identify, mobilise and transfer—and therefore use—land with productive potential has constrained urban development, made infrastructure construction more complicated and costly and thus hindered economic development. As was concluded of Papua New Guinea four years ago, ‘the emergence of a modern economy, with rising demands on land administration threatens to overwhelm the present system’ (Papua New Guinea, Department of Lands and Physical Planning 1988:7). At the moment land tenure problems, especially in Papua New Guinea, are not conducive to adequate urban development and management.

What is needed, at the very least, is a detailed study of urban land tenure and land administration throughout Melanesia, that can begin to identify means of genuinely reducing the substantial contemporary
problems. This will necessitate a more sensitive approach to urban land, with development and leasehold procedures that are in harmony with traditional beliefs on land use and ownership—though inevitably, those too will have to change in some respects. Crucial to this are some institutional procedures facilitating debate and discussion on these and similar issues.

Almost two decades ago Oram noted that in Port Moresby, ‘within the urban authority, a ground-level administrative organisation is needed which provides for representation of, and consultation with, the people of the area concerned’ (1976:189). This has never effectively occurred, and the residents of most Melanesian urban areas have largely failed to gain democratic institutions (though these would not be without their problems in areas where migration is substantial). Hence the ability of urban landowners to participate in development and change has been limited.

The Speaker of the Papua New Guinea Parliament, Mr Bill Skate, in the context of Motu-Koitabu land issues and land rights, has warned of the Bougainville parallel (Post Courier, 29 September 1992), where the interests of landowners were not clearly understood and bloodshed eventually ensued. However successful administrative procedures may be—and they are far from successful in many parts of Melanesia—they ultimately depend on widespread support for and participation in decision-making procedures. This is crucial for all facets of land management.

"The combination of disputed land ownership, increased claims for compensation from landowners and mismanagement have slowed the process of urban development and rendered it much more complex and expensive than in most other countries."
The most fundamental issues in urban service provision are housing, a very basic need, and the supply of water and related services. Throughout Melanesia access to housing is a problem, and variations in character within towns are in part determined by and in part reflected in the availability and provision of housing.

There are enormous variations in residential standards in Port Moresby, for example, from the expensive homes and multi-storey luxury flats of Tuaguba Hill, through low-cost National Housing Corporation buildings, to the flimsy plywood constructions of shantytowns. There are similar but less marked distinctions in Suva, Honiara and elsewhere (indeed in Honiara much temporary housing is of a relatively high standard). Everywhere marginal housing reflects the status of its occupants: illegal or barely tolerated and hence somewhat insecure. Yet even between settlements there are enormous differences. The provision of finance for housing is a political issue and funds are scarce. Some settlements are populated by groups who are believed to be troublemakers and criminals, hence their claims on finance for residential improvement through service schemes and social amenity provision are less likely to be met. Scarcity of finance and therefore of housing and related services, reflects and often entrenches urban inequalities.

"In most Melanesian cities private housing is still a relatively small proportion of the total housing stock, and is primarily relevant for high-income households in the capitals."
It is only relatively recently that urban housing in Melanesia has moved away from the overwhelming domination of employer-provided housing, instituted at a time when most jobs were in government and urban residence was assumed to be a temporary phenomenon. Most private sector workers have been provided with housing as well. This has created a pool of highly subsidised high-cost houses (most owned by the government) in contrast to a relatively small number of formal sector houses available on the open market. Very few of these were and are affordable even for middle-income households.

Over the years governments have sought to reduce their direct involvement in housing through a number of schemes, including the construction of low-cost homes, the sale of government houses, support for settlement schemes through the provision of services, and finance for house purchases. In practice government involvement has tended to decline primarily because of the growth of informal settlements where intervention of any kind has been limited, and because of inefficiencies within the bureaucracy.

National housing policies have nowhere been able to cater adequately to the needs of the urban poor (there are arguments against forms of direct housing provision, in any case) and have, in practice, favoured middle and upper-income groups. This was clearly the case at the end of the 1970s (Connell and Curtain 1982) and has been well documented in the case of Port Moresby (Stretton 1979). Despite policies aimed at remedying this situation, discrimination remains and in the meantime squatter settlements have grown.

In Suva the Housing Authority has attempted to lease better quality land at above-development costs to the relatively wealthy and to use the revenue to provide housing at cost for those purchasing its houses, and below cost for sitting tenants who need to be removed for more intensive development and for those occupying rental flats. Because of numerous problems (including regulations demanding high standards and high costs), some 80 per cent of housing applicants could not afford the cheapest houses (Walsh 1979:2–3). There have been substantial social problems at Raiwaqa, the oldest and largest Housing Authority estate, because of unsuitable housing and poverty.
In Vanuatu the provision of low-cost housing has been frustrated by the peculiarities of the colony's legal restrictions and by the early 1970s almost nothing had been achieved (Bedford 1973:98–9). In the low-cost housing estate of Naha Valley in Honiara in 1983 even local politicians seemed not to be aware of the deliberate relaxation of standards to try to contain costs. The then Prime Minister criticised the builder of the 120-house project (funded under Australian foreign aid) for building 'rubbish', but the project had been approved by the Public Works Department under a 'conditional zone' providing for low-cost housing and under which normal standards were waived (Sofield 1992). As a generalisation and where data is available, it would seem that housing authorities give housing preferences to those best able to pay.

The formal housing sector

In Melanesia generally, but particularly in the three northern states, increased demand for formal housing stems from a number of problems

- low average family incomes
- limited availability of and access to finance for housing loans (especially for low-income families) and a concentration of financial provisions on those with ability to pay
- high costs of building and construction, often due to inappropriate styles and standards of construction and the high cost of materials and labour
- an undeveloped low-cost public or private sector housing market
- limited technical expertise in the public and private sectors.

These problems have been accentuated by rural–urban migration and high urban rates of natural increase, the limited presence of private sector housing construction companies and slow rates of completion, poor administration and management of public housing programs and a history of provision of subsidised housing to workers in the private and public sectors.

The performance of government housing policies and programs has been variable, but generally has fallen well short of expectations and needs, especially in terms of providing housing and/or support
services to low-income households. Management and administration of funds have not always been adequate, and rents have rarely been collected in full. These problems are combined with the high level of subsidy involved in these programs, the overall lack of finance for them, relatively high construction standards and costs, and the use of imported building materials. Governments have faced difficult questions regarding appropriate institutional, management and administrative procedures and mechanisms, as well as technical requirements, for the development of housing policy.

In Papua New Guinea there is a range of formal sector housing. High-cost housing, mainly concentrated in a few inner urban areas of Port Moresby, commands rents from 400 kina to 1,500 kina per week. Medium-cost housing is mostly subsidised government housing provided to senior national and expatriate employees. The majority of these houses remain government owned while a few may be rented privately for between 300 kina and 400 kina per week. Most low-cost housing is occupied by middle and low-income earning employees in the formal sector; some houses are owner-occupied while the others are rented from the National Housing Corporation (Dahanayake 1991:2). Rents are also high outside Port Moresby but primarily because of the very limited availability of rental accommodation.

A broadly similar structure is true of Solomon Islands and Vanuatu, though in neither case is there a great deal of very high-cost housing, and then only in the capital city. Rentals too are much less expensive relative to average incomes. In Suva the housing structure is more like that of Port Moresby in its broad base, but the rents are more like those in other parts of Melanesia.

High housing costs have led to public service salaries being extremely high, thus raising the costs of government. Similarly, high private sector wages (to meet housing costs) have discouraged some economic activities in Melanesian cities, especially manufacturing in Papua New Guinea.

Almost all housing in Melanesia consists of detached homes, a model transported from Australia. Although high-rise apartments are becoming more common, especially in Port Moresby where security is an issue, the extent of detached housing has led to very low-density
urbanisation and substantially increased the cost of providing infrastructure. There is considerable scope for urban consolidation in Melanesia.

Demand for housing has invariably been substantially greater than supply. At the end of the 1970s in Papua New Guinea there were reported to be over 5,000 applicants waiting for National Housing Commission houses. This represented only a fraction of the real demand (To Mutnaram 1979:2), despite the fact that only four out of ten Papua New Guineans living in towns could then afford to rent the cheapest Housing Commission house being constructed (Norwood 1979, 1983; Jackson 1978:172). In Honiara in the late 1980s, 58 per cent of the urban population could not afford the cheapest available house (based on the criteria of permanent employment and housing payments not exceeding 30 per cent of income). If land costs were added to housing costs the percentage would be even higher (Honiara Town Council 1988:33; cf. Nage 1987). In Fiji at the end of 1976, some 8,207 households (22 per cent of the total number of urban households in Fiji) were on the waiting list of the housing authority (Chandra 1979:29).

The extent to which this has subsequently changed is largely unknown: there is remarkably little data on housing preferences in Melanesia. Demand certainly still far exceeds supply, if only measured in the growth of settlements (though this is an inadequate measure of the demand for formal sector housing). Access to the small stock of national housing is necessarily limited and, however straightforward and egalitarian application procedures may appear in theory (though even this is not always evident), in practice access to housing is unequal. In Papua New Guinea, for example, an elite is therefore established. It may be an elite of those who can speak English, or it may be an elite which happens to have wantoks in the Housing Commission. Whichever it is it makes meaningless the idea of queuing for access to housing (Bryant 1977:50).

Certainly formal housing is occupied by an elite, as much now as it was a decade ago.

Throughout Melanesia government provision of housing has taken two main forms, although there is a vast range of possibilities within these two forms (as shown for Papua New Guinea in Table 7).
<table>
<thead>
<tr>
<th>Scheme</th>
<th>Aims</th>
<th>Target group</th>
<th>Elements</th>
<th>Problems</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Settlements Programme 1973</td>
<td>To provide services to residential land; based on Government White paper</td>
<td>Incomes K3000/yr (1984 figures)</td>
<td>-self-help house construction&lt;br&gt;-100% subsidy&lt;br&gt;-K50/yr land rent&lt;br&gt;-building material loan</td>
<td>-LPP delays land&lt;br&gt;-TS documentation&lt;br&gt;-land disputes&lt;br&gt;-squating on program sites</td>
<td>Active</td>
</tr>
<tr>
<td>National Home Ownership Scheme 1980</td>
<td>To provide serviced land, housing and housing finance</td>
<td>Incomes from UMW to K15,000/yr (1988 figures) 60% public servants; 40% private sector</td>
<td>-subsidy on infra and site&lt;br&gt;-100% subsidy for lowest incomes&lt;br&gt;-sliding scale for higher incomes&lt;br&gt;-nominal land rent for 10 years</td>
<td>-procedures&lt;br&gt;-DPF delays in financing&lt;br&gt;-DLPP delays land documentation&lt;br&gt;-land disputes, squating&lt;br&gt;-unsuitable designs&lt;br&gt;-limited private sector finance</td>
<td>Active; limited results</td>
</tr>
<tr>
<td>Sale of government Housing Scheme Phase 1: 1980 Phase 2: 1986</td>
<td>To reduce government maintenance liability; to stress home-ownership; to allow civil servants to buy government housing</td>
<td>All civil servants sitting tenants; now also other government departments</td>
<td>-heavy subsidy for sitting tenants&lt;br&gt;-very low financing costs&lt;br&gt;-K26 land rent&lt;br&gt;-max cost K11,900 (1980)&lt;br&gt;-max cost K50,000 (1986)</td>
<td>-delays in valuation&lt;br&gt;-too heavy subsidy; limited return to Housing Corporation</td>
<td>Active</td>
</tr>
<tr>
<td>Home Loan Guarantee Scheme (HLGS)</td>
<td>To assist public in securing Commonwealth Bank loan for house and land purchase</td>
<td>Those without land title or ownership</td>
<td>-max cost K20,000&lt;br&gt;-14-year pay-back&lt;br&gt;-10% deposit&lt;br&gt;-80% government guarantee</td>
<td>-need for 100% government guarantee</td>
<td>Active</td>
</tr>
<tr>
<td>Home Loan Interest Subsidy Scheme</td>
<td>To assist public in securing Commonwealth Bank loan for house and land purchase by reducing financing cost</td>
<td>Previously for incomes K7500/yr; now open to all</td>
<td>-subsidy 2% to 9% of bank interest rates&lt;br&gt;-sliding scale of level of subsidy depending on income</td>
<td>-full cost recovery of infrastructure&lt;br&gt;-land rent K50/yr for 450 m² plot&lt;br&gt;-recurring costs from land rates&lt;br&gt;-private financing for shelter through existing schemes, or from NHC&lt;br&gt;-plot size related to income</td>
<td>Active</td>
</tr>
<tr>
<td>Urban Housing and Infrastructure Programme</td>
<td>To provide low and medium-cost housing through upgrading and provision of serviced plots</td>
<td>Existing informal settlements, low and middle-income households</td>
<td></td>
<td></td>
<td>Starting, underway in Lae and Alotau</td>
</tr>
</tbody>
</table>

DLPP = Department of Lands and Physical Planning  
DFP = Department of Finance and Planning  
UMW = Urban Minimum Wage

The first is the encouragement of individual self-reliance through provision of subsidised plots, serviced or otherwise, coupled with the deregulation or absence of building standards. This enables residents to construct their own accommodation in the manner they feel is appropriate. The second is assistance with securing commercial bank loans for financing land, or more usually, housing itself (ADB 1992:37). Site and service provision is primarily for low (or non) income earners, some of whom are recent migrants to the city. Provision of financial assistance or housing itself is mainly relevant to higher-income earners.

A third form, the construction of government housing for sale or rent to medium and low-income households, varies across the region. Public housing for sale is the norm in Vanuatu and Fiji. The provision of public rental accommodation, however, is relatively unusual in Melanesia today. This owes much to the problems encountered by public housing authorities with rental arrears and high maintenance costs. The high-income sector (both for sale and rent) is provided for by the private sector, but in Fiji recent uncertainties have reduced such construction considerably. In most Melanesian cities private housing is still a relatively small proportion of the total housing stock, and is primarily relevant for high-income households in the capitals.

The limited availability of rental housing, and the consequent high rents, ensure that there is very little renting of accommodation in Melanesia. High subsidies for formal housing are essential, especially in large Papua New Guinea towns where rents are double those in metropolitan cities such as Sydney: ‘even a highly paid expatriate employee, earning twice the salary of a Papua New Guinean counterpart, would not be able to afford to pay the market rent for a medium-cost three bedroom house’ (Dahanayake 1991:2). Most middle-income citizens live in employer-provided housing, and pay rents that are subsidised to the order of 90 per cent (Dahanayake 1991:2–3). There is also some rental of settlement housing.

High rents are partly a result of insufficient housing stock. The number of houses constructed annually in Papua New Guinea did not increase during the 1980s, and in 1989 was little more than half what it had been in 1980. Less than 10,500 houses were constructed between 1980 and 1989, while the number of urban households was
estimated to have increased by 36,700 over that time period (Dahanayake 1991:9). The situation is broadly similar in other parts of Melanesia as effective demand has exceeded supply, though the structure of this demand has rarely been examined in detail.

Housing provision schemes  In 1990 the Papua New Guinea Housing Commission and the Department of Housing were replaced by the National Housing Corporation. The principal role of the Corporation is to organise housing finance (rather than site and service schemes). The development of private home ownership is closely linked to home financing. The main constraint to home finance in Papua New Guinea is that banks are unwilling to provide a mortgage to a potential home owner who does not hold title to the land. This primarily affects those living in settlements located on customary land.

Two government schemes, the Home Loan Guarantee Scheme and the Home Loan Interest Subsidy Scheme (Table 7; Dahanayake 1991:13), were designed to make finance more readily available and to reduce the cost of borrowing. Government finance for these schemes was limited (with the Home Loan Interest Subsidy Scheme having no more than 400,000 kina per year) and it was expected that the limits of the scheme would be reached quickly if a substantial number of homeowners began to make use of it (ADB 1992:90). In short, the limited availability and use of finance for house purchase has maintained the division between publicly owned housing and settlements. Indeed, ‘most of the assistance schemes failed due to management problems—nepotism, corruption, inefficiencies and weaknesses in the system’ (Dahanayake 1991:14). There was no proper demarcation between intended subsidies and cost recovery.

In Solomon Islands housing functions were undertaken by the Department of Lands and Physical Planning until the establishment of the Ministry of Housing in 1989. The Solomon Islands Housing Authority was set up in 1970 to construct and finance houses, especially for low-income earners in Honiara. Its target was 100 houses per year but few houses were constructed because of limitations on the House Financing Scheme. The Authority gradually undertook more work on the provision of public buildings, even copra sheds. Severe inflation in the 1980s, the devaluation of the Solomon Islands dollar and problems of providing infrastructure
substantially increased the cost of houses, particularly as attempts to use local timber were not very successful. Hence the Authority could no longer build houses that were affordable for low and medium-income groups. As elsewhere in Melanesia, unsatisfied demand for new homes has led to an increase in occupancy rates (which in Honiara averaged seven persons per household in 1986) and to the expansion of settlements (officially called Traditional Housing Areas).

The Solomon Islands Housing Authority, with its wider role of constructing and leasing out housing, was scrapped in 1989 and replaced by the Home Finance Corporation (HFC). The HFC found itself with large debt burdens, a kit-home-producing factory running at a substantial loss, and an inability to take action on providing home finance. It has achieved little; few if any loans have been given out in contrast to expenditure on salaries and overheads, and it has only operated in Honiara. Here, as elsewhere in Melanesia, it has proved extremely difficult to develop a form of financing that genuinely caters to the needs of low-income households. Schemes have flopped, sometimes because of inadequate finance or limited administrative skills, but also because of the limited availability and consequent high cost of accommodation to which such schemes might apply.

In the mid-1980s the Papua New Guinea Government tried to move away from intervention in the housing market. In its Medium Term Development Strategy of 1986 the government tried to rationalise housing policy and facilitate the emergence of a free market in housing, but policies were weakened after political and trade union pressure, and sale of government houses was the only outcome (Dahanayake 1991:14–16). Lack of attention to ensuring land availability and housing loan finance were responsible for the policy failing to achieve its objectives.

Another new housing policy was adopted in 1989 after the publication of a report from a government task force (Papua New Guinea, Ministry of Housing 1989). This policy withdrew somewhat from the 1986 initiatives: it sought heavy government involvement, with a large bureaucracy (including the creation of the National Housing Corporation) and substantial subsidies; and it intensified bureaucratic control and regulation rather than enabling a gradual
shift of housing into the market economy (Dahanayake 1991:17-18). Overall, housing policy in Papua New Guinea has tended to favour large-scale intervention in the market through subsidies rather than attempts to remove the causes of market failure to enable it to function efficiently.

In this sense policy in Papua New Guinea is much like that in Solomon Islands and Vanuatu. There have however been direct attempts by Melanesian governments to move out of the housing system. The sale of high-cost housing in Papua New Guinea, especially in Port Moresby, was first debated in the 1970s (Curtain and Blaxter 1978). It was argued that owners’ stake in the maintenance of property values would result in a greater sense of environmental and community awareness. It was consequently recommended that home ownership be promoted by stressing the concept of a house as a transferable commodity (Stretton 1979). Whether this would generate permanent housing inequalities through the creation of landlords, and/or contribute to the stability of an urban workforce is difficult to determine.

Deregulation of public housing has not always been easy. When Solomon Islands gave public servants the opportunity to buy the houses they occupied the Civil Service Association opposed the decision. The government later abandoned housing sales when it recognised the housing shortage (Nage 1987:96–7). Like other Melanesian states it has now returned to a policy of selling.

The Papua New Guinea government deregulated public housing by deciding in 1992 to have a Give Away Scheme and relinquish all low-cost government houses to their current tenants at no cost. Some 6,000 houses in different urban centres were involved, valued at 24 million kina and with an expected rental revenue of 1.3 million kina per year. The Give Away Scheme began in Gerehu, Port Moresby in April 1993 and was subsequently extended to other suburbs and towns.

The scheme aimed to encourage home ownership and to relieve the national government of both the difficulty and the financial load of maintaining and administering the properties. Many tenants had refused to pay rents due to the physical deterioration of the properties, and rental arrears at the start of 1992 amounted to more than 2.5
million kina (*Post Courier*, 30 September 1992). This kind of deregulation and sale however can only have a small impact on the overall housing system.

There have been similar attempts to divest the private industrial and commercial sector of its housing stock. In Papua New Guinea the Commonwealth Development Corporation has established a subsidiary, the Papua New Guinea Home Finance Company, to enable households in company housing to purchase their accommodation. This would allow some companies to quit the residential property market and recoup valuable capital tied up in unproductive assets, and would reduce the costs of rental subsidies (*Times of Papua New Guinea*, 23 July 1992). Similar moves were made by multinational mining groups to normalise company-town housing stocks in Australia a decade ago (Lea and Zehner 1986).

The Papua New Guinea Home Finance Company, established in 1991, has experienced problems because of inefficient procedures for the transfer of titled land, and because of the shortage of affordable housing and land—a situation said to have ‘made individual home ownership beyond the reach of most Papua New Guineans’ (*Times of Papua New Guinea*, 11 March 1993). In the urban centres the Home Finance Company has also argued the need for education of both employers and potential home-owners of the benefits of home ownership. Again, the impact on overall housing resources and its supply and demand is quite limited.

Throughout Melanesia national housing organisations have been set up with the intention of improving the housing status of those most in need. In practice it has not worked out that way. In Papua New Guinea the National Housing Corporation has in theory been oriented to meeting the needs of relatively low-income groups. Its official policy has been to concentrate on producing serviced plots and on-plot development in sizes, standards and at costs affordable by target groups. Since 1990 it has sought to make shelter available to those households with annual incomes of less than 1,500 kina. In practice, as its 1992 policy statement observed, it met the needs of households earning less than 15,000 kina. Virtually the whole of the indigenous urban population falls within this income limit.
Access to land

Perhaps the most serious constraint on urban housing provision in Papua New Guinea has been the limited availability of land, the failure of housing policies to recognise the gravity of this constraint, and hence the necessity to secure the release of greater areas of appropriate land. As Dahanayake has written with regard to the 1986 housing policy,

one of the most crucial measures of the policy, that relating to land, was completely ignored and not implemented. Under the proposed policy the government was to either purchase or acquire suitable land in urban areas, provide it with basic infrastructure, block it into building sites and sell them to citizens by public auction. If implemented, this would have overcome one of the key obstacles to urban housing development in the country. It would have provided land with clean titles to prospective land owners who could have used them to obtain mortgage housing loans from financial institutions (Dahanayake 1991:16).

Subsequently the issue of providing land has never been confronted, though the Minister of Housing introduced the 1992 housing policy statement by noting that ‘interestingly enough land will also be parcelled and made available to people to build their own homes under this scheme’; it was later noted that the Land Mobilisation Division of the National Housing Corporation had experienced considerable problems in land development (Papua New Guinea, National Housing Corporation 1992:10–11). It was never explained where the land was to come from and how it would be made available for residential development. Little land has been made available in the past and the organisation of land has occurred at considerable cost to the Corporation, since cost recovery has rarely been built into land development projects.

Despite changes in attitudes to land tenure within Melanesia, specifically away from the compulsory acquisition that was more common in colonial times to notions of partnership and cooperative development (Lea 1983), the amount of urban land available for contemporary development has not substantially increased. Land reform and land administration policies will fail unless landowners, users (and potential users) and governments reach greater consensus on the mechanisms for land mobilisation and the manner in which changes in land tenure and use might be achieved and compensated for. Most land development policies have not come close to such
objectives, mainly because of landowner objections to any form of compulsory purchase by the state, hence the shortages of land in urban areas.

**Access to finance** The second crucial issue for housing is access to finance. The unavailability of mortgage finance has been a significant constraint to urban housing access. In 1992 the Papua New Guinea National Housing Corporation introduced new housing finance schemes centred around a Housing Refinancing Facility. The Facility is aimed at first home buyers with annual incomes less than 15,000 kina. Within it are five schemes: the Grassroots Toea-Savers Housing Scheme, the Grassroots Kina-Savers Housing Scheme, the Homekeepers Super-Savers Housing Scheme, the Employer Assisted Homeowners Contribution Scheme and the Beneficiaries Homeowners Contribution Scheme. Each was designed for a particular group of potential homeowners. The Grassroots Toea-Savers Housing Scheme was aimed at the lowest income group: households earning less than 3,000 kina (about two-thirds of the urban population) or unemployed or not regularly employed. This is innovative since all previous schemes have demanded that participants be regularly employed. Those interested in the scheme are expected to demonstrate their ability to save by saving about 2,000 kina over a period up to two years. This enables them to raise the basic sum for a deposit. The National Housing Corporation identified two particular groups, bottle collectors and betel-nut sellers, who are the most visible elements of the informal sector in most Papua New Guinean towns, as target groups for this scheme. But it did not determine these groups’ patterns of income and expenditure (and thus their ability or propensity to save), or what aspirations these perceived target groups (or any other groups) had towards formal home ownership (or whether they were itinerant urban residents who might prefer residence in a settlement). In other words the policy was designed without any regard to the needs, aspirations or ability to pay of the potential target population.

**Problems in the formal sector** The conjuncture of unemployment (or inadequate incomes from informal sector employment) and poverty in the larger urban centres suggests that housing policies should give greater focus to low-cost or self-help
housing. Throughout Melanesia, but to a lesser extent in Fiji, insufficient housing is available for low and medium-income families. A number of middle-income households live in settlements, though they may prefer to live there. Moreover, in Papua New Guinea, 'the dominance of large foreign building firms, the use of imported building materials and high building standards have discouraged the development of a low-capital building industry' (ADB 1992:53), a situation that is also true of Solomon Islands and Vanuatu.

Even though formal housing is owned or occupied by an elite of relatively high-income earners, payment for services has not always been forthcoming. At the end of the 1970s the National Housing Commission had significant rent arrears (Aldrich and Greenshields 1979:13). Rent arrears have been an ongoing problem in Melanesia. As a result, government housing authorities today have virtually stopped providing new rental accommodation for low-income tenants in Port Moresby and Suva, but instead have favoured the sale of partially subsidised dwellings. This has not solved the problem of arrears in Suva, however, because the Housing Authority remains responsible for the collection of mortgage payments for dwellings sold to the public. Collection efficiency was no more than 60 per cent in 1991 and some mortgages were two years in arrears (UNDP and UN Centre for Human Settlements 1991; Bryant 1992). There are therefore considerable problems in the formal housing sector.

The informal housing sector

The informal housing sector now accounts for a substantial proportion of most Melanesian cities. Opposition to rural–urban migration, and the increased number and expansion of settlements, has been discussed earlier (Chapter 6). Arguments against settlements have usually been based on assumed, but sometimes real, characteristics of the squatters. Norwood notes that
usually are prepared to work hard to become respectable citizens of the towns where they now live. There is no evidence whatsoever that urban migrants are any more ‘parasitic’ on the cities than are any other town dwellers (1983:11).

Crime and unemployment are not necessarily more concentrated in settlements, though settlers may be more likely to be employed in the informal sector (despite the rules and regulations that limit the extent of this sector). Some sectors of the urban economy would function inadequately without the participation of settlers—the informal marketing of betel nuts and the collection of bottles in Port Moresby, for example, not only play an important role in the economy but provide an extraordinary amount of employment. This is particularly significant since many settlers come from parts of Melanesia where employment is difficult to obtain and there are few other sources of income generation (Connell and Lea 1993).

In Suva squatters were found in 1979 to constitute one-fifth of the labour force and to contribute significantly both to the city’s food supply and to the production of tourist artefacts (Walsh 1979). Similar contributions are likely in other capital cities (though there are environmental constraints to agriculture in Port Moresby), but there have been no recent attempts to evaluate the economic contribution of settlers (nor, for that matter, their housing aspirations, duration of residence in the cities and so on). The only exceptions are a study of Paamese migrants to Port Vila (Haberkorn 1989b and 1992) and the detailed historical investigation of Mount Hagen migrants in Port Moresby (Strathern 1975).

Settlements have considerable advantages, especially for recent migrants to the city, beyond the fact that residence there is relatively cheap since rents are likely to be low or non-existent, and certainly below those in the formal sector. People are often near their workplaces, reducing the cost of travel, and live with kin and wantoks from their home areas; this enables costs to be shared and is extremely significant for security. (In Port Moresby, for example, where most formal housing—and especially the most expensive housing—is surrounded by increasingly elaborate security systems, few if any security precautions have been taken in settlements.) The possibility for individual workers to live in settlements makes labour recruitment easier in some areas, and thus lowers costs to employers.
Settlers are able to produce housing appropriate to their immediate needs, which can be transformed without legal problems as these needs change. This is the normal village situation. Settlers use mainly local or recycled materials, and thus reduce the cost of housing. Settlements are often located on marginal sites of limited alternative value, and sometimes inappropriate for formal housing. They therefore help reduce demand for formal housing and relieve pressure on the formal housing market, which is unable to supply an adequate amount of appropriate housing.

Settlements maximise self-reliance in the use of indigenous human and natural resources, and house high proportions of the urban population (though much less than in many Asian cities). But residents often suffer from insecurity of tenure and limited access to public services. One means of encouraging this type of private or collective initiative is by providing technical assistance (including through NGOs) and building material loans (which could also contribute to import substitution).

There is an extraordinary lack of even basic information in Melanesia about the number and proportion of the urban population who live in settlements. In Port Moresby perhaps half the population lives in this way—a proportion that may well be true of many other cities. In the large cities, and especially Port Moresby, there are many distinct settlements. In the late 1980s Suva had 26 settlements, Honiara had 35 and even the small Milne Bay provincial capital of Alotau had 18.

Almost all settlements in Papua New Guinea are occupied by migrants from the New Guinea mainland. In Solomon Islands and Vanuatu settlers have a more even geographical distribution, though they tend to be mainly from densely populated islands such as Malaita and the Shepherd Islands, respectively. Nevertheless there is considerable diversity among settlements in terms of size, location (several in Port Moresby being more than 10 kilometres from the city centre), social composition, socioeconomic status and the extent to which infrastructure such as water supply and electricity is or is not available.

Since Norwood’s review of Port Moresby settlements at the start of the 1980s (Norwood 1983) there have been very few studies in Papua New Guinea and they provide relatively little information (which is
one reason stereotypes of squatter settlements persist). In many squatter settlements in Melanesia there are households of relatively high socioeconomic status, including those with permanent public servants and other relatively high-income earners. This says something about the difficulty of obtaining formal housing and/or about the perceived desirability of settlement residence. When settlers were removed from Garden Hills, Port Moresby at the end of 1992, a newspaper columnist derogatorily referred to their moving with costly taxi-trucks (*Times of Papua New Guinea*, 10 December 1992). The implication was that only the poor should be in settlements; others should live in proper housing. This is demonstrably not the case.

The available evidence suggests that the employment patterns of settlement residents are not very different from those of the city as a whole, despite the greater probability that residents work in the informal sector.

- At Bumbu, Lae there was around 60 per cent formal employment for males, and 11 per cent employment in the informal sector, a situation similar to that in other parts of Lae (Walsh 1987; Kaitilla 1992).

- At Ivane, Port Moresby, there was 38 per cent formal employment amongst the Goilala settlers but most of the others were engaged in the informal sector (Vavine 1984).

- At 9-Mile, Port Moresby, there was 48 per cent employment for males, but only 4 women out of about 180 of working age were employed (Chao 1985:175).

- A study of Port Moresby settlements in 1987 recorded an employment rate of around 50 per cent, very similar to that in different components of formal sector housing (King 1992).

Similarly, incomes are not very different from urban norms. At 9-Mile the average per capita income was 90 kina per fortnight, and a quarter of all households had incomes of more than 100 kina per fortnight. Many residents had lived in the settlements for a long time. At Bumbu 60 per cent of households had been there for more than two decades and 90 per cent had owned their houses for more than 10 years (Kaitilla 1992); this was therefore a highly permanent population, more so than in most urban areas. At Matariu, Honiara 75 per cent of adults were semi-skilled workers with the Public Works Department and many had lived there for several decades.
The evidence from Suva is less disaggregated. Roughly similar proportions of employment occurred in a sample of squatter settlements, but there was a high proportion in the informal sector and a significant increase in unemployment between 1989 and 1991 (Bryant 1992).

The evidence that is available points to a relatively well established population in many settlements, in terms of duration of residence, situation within the workforce (and even incomes) and the extent to which residents had constructed relatively permanent homes. It is therefore appropriate and crucial to focus housing policy on this relatively deprived yet very large proportion of the urban population, where privatisation has already been successful in many respects.

**Site and service schemes**

The Papua New Guinea Housing Commission was set up in 1968. Its initial policy was to provide low-cost housing to low-income earners. By 1973 it became apparent that, in order to cope with increasing numbers of migrants, the emphasis would have to change. The Commission initiated a scheme of self-help involving establishment of ‘site and service’ housing developments alongside upgrading of existing settlements with access roads, piped water, drainage and street lighting. This represented a transition to a more appropriate self-reliant housing situation which appears to have been successful in some contexts (cf. Forbes and Jackson 1975; Bryant 1979; Rabuni and Norwood 1980), but there are major difficulties in obtaining land for housing, especially in towns other than Port Moresby. Many schemes have also been restricted by the cost of providing even basic services, and by political opposition to formal recognition of urban settlements. In a decade there has been substantial change from the situation in 1981 when the Papua New Guinea Government funded a 1.5 million kina program to alleviate some of the hardships encountered by squatters in urban areas (Connell 1983a). Because of the significance of settlements in Melanesia, policies that affect them are crucial to the future of urbanisation and service provision.

Site and service schemes for squatter settlements were generally accepted in Papua New Guinea in the 1970s, and several were undertaken. By contrast there was no evidence of such schemes in
Fiji. Squatter settlements there were gradually removed from central city locations in the guise of rationalising land use. This was viewed as no more than an attempt to organise urban space as an instrument for perpetuating class and other sectional interests (Walsh 1979). Inevitably such rationalisation was at the expense of the urban poor who were decentralised away from inner city residential areas and thus from employment opportunities in the informal sector or elsewhere.

In Solomon Islands there have been no site and service schemes, though these are currently being introduced. Nor have settlers been removed from the sites they have chosen in the city, which may begin to explain why informal housing in Honiara is more formal than its counterpart in Port Moresby. (A second and significant reason is that squatter settlements in Honiara have not been built on privately owned land. Residents, in fact, are rarely squatters, in the illegal sense.) Other cities have moved away from providing services because of lack of interest, limited administrative capacity, security concerns and inability to collect revenue.

Site and service schemes are now being developed for six sites in Honiara, and the Honiara municipality has recommended that all settlements (Traditional Housing Areas, or THAs) be incorporated within a zoning plan that will also provide space for subsequent settlements.

The THAs are intended to retain many of the features of the customary village culture and environment, supplemented by provision of basic services. Permanent tenure will be assured to provide a sense of security and to encourage individual investment, but conditions of tenure will be kept flexible to ensure that there are low-resource options for the poor and for those who do not intend to reside permanently (Honiara Town Council 1988:45).

This positive approach to housing the poor contrasts with the lack of policies in some other states. An EC-financed Home Finance Corporation scheme is now working on 1,000 residential sites in Honiara for private housing development. Infrastructure costing SI$6 million will be constructed at Kobito 1 and 2, Lio Creek, North Naha and Tasahe 1 and 2, and plots will be tendered to households who will receive loans of up to SI$20,000 from the Home Finance
Corporation to construct their own houses. The project was developed on the basis that people could afford to take out substantial loans since they had been able to build homes valued at up to SI$60,000 (Solomons Star, 23 September 1992).

The original proposal suggested that as many as 92 per cent of the population in formal employment could afford loans and repayments of SI$25 per week (Solomon Islands, Ministry of Housing and Government Services 1990:11). But even workers with good wages find it hard to repay loans. The scheme may therefore, at considerable cost, be able to meet the needs of only a limited number of settlers in a few Traditional Housing Areas: indeed, principally the sort of settlers who have been able to provide for themselves within the existing system. There has been concern about a number of features of the scheme:

- the macroeconomic situation in the Solomon Islands, which will make housing finance difficult
- the high housing standards set, which will result in lower occupation densities than are appropriate in a Melanesian context
- the weak capacity of the Home Finance Corporation, which will probably be only able to establish selection criteria and allocate sites.

Thus, although there has been support in Solomon Islands for the development of site and service schemes, it has occurred in vacant sites (only one of the six sites has existing houses) and is unlikely to meet the needs of the poorest groups.

While governments have opposed settlements, mainly on amenity grounds, some settlers have received permission or even encouragement from their employers, including assistance with building materials. At Matariu, Honiara, both the Public Works Department and local building contractors, who were the main employers, provided direct assistance, and churches also provided assistance (Nage 1987:100). Employers have recognised the virtues of supporting self-help initiatives among their workers—such initiatives have cut housing costs and ultimately wage bills.
Housing the poor  Squatter settlers in Garden Hills, Port Moresby, were asked to leave or be evicted in late 1992 so that formal housing development could go on. The uncertainty attached to residence in settlements was readily apparent.

Without a land use plan for Port Moresby, and without policy towards settlements, much energy and income is wasted and settlers are frustrated, as are landowners when and where they seek to develop it. In extreme cases frustration may lead to violence. In October 1992, the Bumbu settlement in Lae was declared a fighting zone after a clash between settlers and landowners (*Post Courier*, 5–8 October 1992). Such violence cannot solely be attributed to insecurity, but lack of agreement on policies towards settlements and on land tenure contributes to discord.

There has been no identification and establishment of policy for settlements and their residents in Papua New Guinea particularly, despite the fact that the extent of settlements is greatest there and their problems most serious.

Squatter settlements have sprung up around every town in this country before and since Independence. Over the years, they have expanded, even intruding into customary land as increasing numbers of grassroots people have drifted into towns in search of a better life. These days, they have come to be regarded as breeding grounds for criminals. Settlements have been the subject of many studies, with numerous reports highlighting the problems associated with them. But successive governments have not bothered about coming up with a clear policy on how to deal with them. Many leaders have relied on these settlements for votes to get into power, but apart from putting in limited services no policy has been formulated about the future of these settlements within the overall framework of urban development. Settlements will continue to expand, and it is in the best interest of the nation that a comprehensive policy be adopted to formalise any future expansion and ensure that people live in proper homes with proper services. The continuing lack of such a policy can only lead to serious problems for the country (*Post Courier*, 15 October 1992).

There are implications here for other parts of Melanesia. Policies towards settlements throughout the region can be described at best as benign neglect. They could be much more positive and cost-effective. It is a testimony to the poor in the cities of Melanesia...
Rocky Korua, originally from Chuave in Chimbu Province, has lived at the Garden Hills settlement in Port Moresby for five years. For Rocky, this is home, he has put much effort into setting it up and to simply pack up and leave is too much for him to take. Like many others he moved in and cleared up the place and set up a small shelter. There was nothing there except drums and Rocky made his first hut using old drums and a few old plywood [sic]. He [then] cleared the piece of land and began planting aibika, banana, pumpkin and taro to sell at the city’s markets to make ends meet. He said like the other squatters, he took it that it was state land and so he moved in and built his home. ‘This wasn’t a flat piece of land, it was hilly and I had to hire a bulldozer to level the land for me and I paid for this out of the little money I made selling vegetables,’ Rocky said. From the money he made from selling vegetables he managed to set up a small tradestore and to build himself a proper house. ‘It is not the smart looking houses you have out there, but it is something I can call my home.’ Rocky has since invited two other relatives to settle on his piece of land and they too have built two more houses. He also looks after 10 others—8 men and two women and Rocky says he has a responsibility to look after them. One of his brothers-in-law is working for Hebou construction and the other with a supermarket at Gerehu. Rocky said he was fortunate to have set up the tradestore because with the money he makes they are able to buy other things they need. Rocky has lived on [sic] Port Moresby for 10 years, five of which is at Garden Hills settlement. ‘If the government wants us to vacate this land, it must first find us some place to go and at the same time give us some money to rebuild our homes.’ Rocky is one of the many squatters now facing eviction from the Garden Hill Settlement (Post Courier, 9 October 1992).
that they have found ways of housing themselves which are appropriate, flexible and of a higher standard than in some other parts of the world, while states have effectively abdicated their responsibility for ensuring that all groups in society are housed.

Site and service schemes have their critics. It has been argued that such programs merely ameliorate conditions in existing squatter settlements and institutionalise poverty. Site and service schemes help the poor, but in a way which poses no major threat to the affluent: the structural inequalities in society are not removed by such schemes. But to remove such inequalities would in practice demand nationalisation of all housing (and the upgrading of most). That approach too has been criticised in Papua New Guinea; in any case it is doubtful whether any poor country, under any political system, could achieve a degree of equality which would enable them to dispense with policies towards informal housing (Oram 1976, 1979). Indeed the facts that such schemes do help the poor while not threatening the affluent, and that costs can be imposed for service provision, have gained renewed support for site and service schemes in recent years.

Throughout the housing sector there are inequalities, in access to both housing (owned or rented) and land for construction (legal or illegal), and in the availability of services within the different parts of the housing sector. Even access to squatter settlements may be controlled. In Honiara, for example, any person wishing to live in a squatter settlement must apply for a Temporary Occupation Licence (valid for 12 months). Applicants must in theory be employed before being given permission to construct a house (Kama 1979:151), but the procedure has now broken down with many people moving onto government land without permission and without paying for a licence (Nage 1987:99). In Suva most urban land is nationally owned and Indian squatters believe themselves to be less secure than Fijians; until recently those on private land could be evicted without compensation (Walsh 1979). In these kinds of situations residential insecurity is obvious. The policies of the early post-independence years towards the management of urban settlements have largely disappeared, most obviously in Papua New Guinea. What is true of Mount Hagen is generally true elsewhere.
The orderly development of settlements appears to have been sadly neglected in recent years, and as a result heavy pressures have been placed on existing settlements and communal land to cope with the increasing numbers of people migrating to Mount Hagen. The provision of land, services and community facilities needs to be carefully looked at to ensure their economic viability as well as preventing future health and community problems (Mount Hagen Town Authority 1991:28).

The other issue that needs to be addressed is the disparity between urban and rural housing. The provision of urban housing for some workers can be viewed as a form of urban bias. All expenditure on urban housing and services (especially when there is no expenditure on rural housing) constitutes a subsidy to the urban sector. Two urban planners in Papua New Guinea have argued that urban administrators cannot expect the Government to continue to subsidise the capital costs of urban development, or facets thereof, when such extreme disparities exist in the comparative physical and economic welfare of the rural dweller versus the urban dweller. This view is held by the Department of Finance and the National Planning Office (Aldrich and Greenshields 1979:6).

Though this view is no longer prevalent it certainly remains true that there is no substantial support for urban development under planned conditions.

**Housing for urban growth**

In all the Melanesian countries there is scope for a national housing authority with a number of important functions, including

- improving access to secured finance for unsubsidised housing for high and middle-income groups
- improving financing and provision of subsidised social housing where relevant, and self-help settlement schemes
- encouraging and facilitating private sector participation in the housing sector.

In housing, or elsewhere, ‘any plan for shelter development will only be effective if it is part of an integrated strategy for national development involving cities and towns development plans, land, infrastructure and transport’ (Papua New Guinea 1989, Vol. 2:7). As yet integrated planning has been conspicuous by its absence in
Melanesia; it has proved difficult enough to organise the housing sector alone. Integration of service provision should represent the ultimate aim of urban planning and housing development in Melanesia.

The diversity of housing problems found in the Melanesian capitals outside Papua New Guinea and the range of responses adopted to deal with them are best described by comparing the situation in Port Vila, a small town at an early stage of urbanisation, with the very different circumstances in Suva, the city in the region with the most experience of housing policy.

**Port Vila**

The Vanuatu Government’s objectives for housing during the second national development plan period (1987–91) were to

- ensure that acceptable housing is available for those who must live in towns
- significantly reduce overcrowded housing and illegal squatting
- legislate to ensure that new housing is of an appropriate standard
- increase the supply and range of houses available to those who wish to purchase their own homes (Vanuatu, National Planning and Statistical Office 1987, Vol. 1:551).

A 1986 environmental health survey by Port Vila Municipality listed six characteristics of housing in the low-income areas of Tagabe, Anabrou and Seaside, comprising about a quarter of the urban population of the city in the late 1980s:

- gross overcrowding with densities of up to 19,000 per square kilometre and eight persons per room
- poor conditions, seen in the accumulation of uncollected rubbish
- high rents of up to 7,000 vatu per month for a single room out of a monthly income of 12,000 vatu
- poor or non-existent sanitation, with inadequate sewerage and pollution of the lagoons and harbour resulting in a serious health hazard
- problems in implementing municipal by-laws and other legislation
helplessness among those without security of tenure who have no incentive to help themselves or engage in improvements (Vanuatu, National Planning and Statistical Office 1987, Vol. 1:553).

Although Port Vila is a very small city by international standards and the scale of its housing needs is correspondingly modest, the difficulties it has encountered are severe and likely to accelerate. Besides the largely artificial shortage of land suitable and available for development, it is estimated that some 35 per cent of existing housing stock is substandard and that at least 5,000 new houses will be required by the year 2000 at projected growth rates and an occupancy level of five persons per house (Halliburton 1992).

Present government policy places responsibility for public housing in the hands of the small National Housing Corporation, established by an act of parliament in 1985. Of chief concern is the lack of coherent government policy to guide the Corporation in its objectives, priorities and means of financing and providing dwellings. The Corporation appears unable to service the needs of low income ni-Vanuatu, as pointed out by UN consultant Halliburton (1992). Recently developed estates like that at Fres Wota Central produced housing 40 per cent more expensive than anticipated and out of reach of the income of half of all households. Generous new house lots of 500 square metres were being developed by the Corporation in 1992 at a house/land package cost of some 3.5 million vatu (A$43,000 in 1992). Recently, six high-income houses were built for rental at Tassiriki. These developments are hard to reconcile with the charter of the Corporation to ‘provide houses and ancillary buildings for sale or for leasing to persons of modest incomes’ (National Housing Corporation Act No. 37, 1985).

Coordination is minimal among the many central and local government agencies with interests and responsibilities in housing, with the result that effective steps to deal with major problems like urban squatting are paralysed. Close to the new parliament buildings are the densely settled squatter camps at Seaside, Futuna, Tongoa and Paama, housing some 3,000 people. Suggested solutions include upgrading the Housing Corporation to authority status, giving responsibility for housing to one of the central government ministries to establish firm policy guidelines, improving access to
suitable sources of finance, and investigating productive roles for the private sector.

If a greater proportion of the urban poor are to be adequately housed, some compromises in dwelling standards will be necessary. Considerable resettlement of existing squatters will also be required but poses the great problem of acquiring suitable sites within the boundaries of the urban area. A recent World Bank study recommends the development of smaller lot sizes and anticipates loan funds becoming available from local banks at reasonable levels of interest (World Bank 1991). Both these measures have proved difficult to implement. The World Bank’s housing project in Port Vila remains inoperative.

Key policy issues will have to be addressed.

Policy needs to be formulated taking into account the potential of government agencies and the constraints on them. What human resources are available? Particularly, what finance can be assessed? (The role of the private sector in finance provision and the role of international and bilateral agencies is likely to be partly determined by the constraints upon government agencies...although the role will also be a matter of politics and philosophy.) More broadly, how much land is available for meeting existing and future projected demand, what will employment and household income levels of target beneficiary groups be in future, and thus will the intended housing product be affordable? Do environmental, infrastructure, service or social constraints exist? (Halliburton 1992:75).

In summary, progress towards overcoming the growing housing crisis in Port Vila is unlikely to make any headway until the government has clarified its own objectives and priorities and established the means of putting them into practice.

Suva The housing situation in metropolitan Suva is of an altogether different order from the newly urbanising cities of Port Vila and Honiara. The first Housing Act establishing a Housing Authority was passed in 1955, 30 years before similar legislation in Vanuatu. Political instability in recent years has deeply affected the level of activity in the housing industry; private sector involvement was practically wiped out after the 1987 coups.
In the 10 years to 1988 the Housing Authority produced 15,000 rental and sale properties. Prior to 1955 most housing came out of the private sector and, although some private sector activity was evident in high-income and high-rental accommodation in 1992, the loss of skilled tradespersons after the coups has weakened all sections of the industry. In the case of the Housing Authority, investment fell from a pre-coups figure of F$11.5 million in 1986 to F$4.7 million in 1989 (UNDP and UN Centre for Human Settlements 1991). Plans for the 1993 financial year involve F$20 million in lot development and housing construction (The Fiji Times, 2 November 1992).

Most published research about Fijian housing is directed towards the informal sector as seen in the anatomy of urban squatting in Suva. It began with doctoral research by Walsh in the late 1970s (Walsh 1978, 1979, 1984), and has included surveys published by Suva City Council in the 1980s (Suva City Council 1983; 1986 and 1990), various social profiles of squatter camps (Barr 1990; Laqere 1987; Sikivou 1985; Suguta 1987; Vuetibau 1987) and Bryant’s work on squatter subletting and Fiji housing (Bryant 1990, 1992; Bryant and Khan 1990). Relatively little of the literature examines in any detail the institutional profile of Fiji housing. Some contributions are found in the work of the government and non-government agencies. Similarly, little attention has been paid specifically to the urban formal sector: to private contractors—those providing professional services of various kinds and to the origins of housing finance.

Much research is in the form of reports to government departments by international agencies or specially commissioned individual consultants. Such reports are notoriously difficult to access even a short time after completion and are varied in quality, with the result that there is considerable repetition of basic work over and above that needed for updating information. Among the more useful new source materials are the recent reports by the World Bank (1990) and papers associated with the 1991 UNDP Urbanisation/Housing Policy Study (UNDP and UN Centre for Human Settlements 1991; Finseth and Barr 1991; Greenwood 1991; Qalo 1991). In addition, there are a series of ADB Technical Assistance for Institutional Strengthening working papers produced for the urbanisation and monitoring project (cf. Crosby 1992), and the reports on infrastructure and housing prepared by PADCO Inc., Washington, DC, for the Fijian government (cf. Olsen 1991).
The Fiji Housing Authority has been established for almost 40 years (under the Housing Act of 1955) and was originally responsible for the provision of both rental and sale properties. In 1987 the Authority was reorganised and after a World Bank mission report in 1989 its rental operations were transferred to a new body, the Public Rental Board. Between them these two agencies now control the national housing industry in Fiji. Both have employed the services of numerous consultants to investigate specific aspects of their operations and major financial assistance has been forthcoming from the World Bank and the Asian Development Bank.

Housing Authority sales in the Suva/Lautoka/Nadi urban areas numbered some 800 lots in 1990. The Authority is currently modernising its managerial capacity with new office technology but still experiences difficulties in reducing mortgage payment arrears and providing for the acquisition of staff skills. The supply of land in the greater Suva area is critical to the success of the Housing Authority’s operations; recent estimates suggest that present stocks will be exhausted by 1995. A lack of coordination has resulted in the Authority competing with the Department of Lands and various charities for scarce government-owned land. It has been recommended by United Nations agencies that the Housing Authority be corporatised with a view to eventual privatisation. It is claimed this would allow capital restructuring and more efficient operation (UNDP and UN Centre for Human Settlements 1991).

The problems of the Public Rental Board are more severe. It was presented with a ‘poisoned chalice’ on its formation in 1989 in the form of a debt of F$19.6 million incurred by the Housing Authority over the period 1979–88. The stock of rental properties transferred to the Public Rental Board included many which were highly subsidised and still occupied by the original tenants. This accommodation should fulfil a valuable social need in catering to the housing requirements of the very poor but, as is usual in such circumstances, many would-be tenants in this category cannot gain access to existing public rental stock. Suggested solutions to the Board’s problems include selling 60 per cent of its rental properties, concentrating operations in the area of welfare housing, investigating the formation of housing cooperatives to purchase Board housing units offered for sale, and writing off the large operating deficit inherited on establishment. An even more radical
idea is for a complete divestment by government and transfer of Public Rental Board assets (after meeting all liabilities) to a non-
governmental charity, the Housing and Relief Trust.

Non-governmental organisations in Fiji have shown some impatience with the lack of government assistance to the large squatter community in Suva: the Methodist Church, for example, decided in 1992 to purchase three-quarters of the Jittu estate, a notorious squatter camp, for subdivision and sale to existing tenants (The Fiji Times, 18 November 1992). In the words of a press editorial, ‘It is a pity that it is the Church that has to shoulder a burden that rightfully belonged to government’ (The Fiji Times, 19 November 1992). This is apparently a very different situation from that in Port Moresby. The actual circumstances faced by the poor were recorded graphically in the story of Josie Marama of Namara Village near Tacirua in Suva, who says

government ministers should come and see the way the poor live. Josephine, husband Jone, and their three daughters live in a small two-room home, built on land belonging to Naitasiri landowners but on which the family and others in the area have been staying on for more than 30 years. At Namara most of the families do not have any outside income. Many children just don’t go to school because parents can’t afford it. Jone has been working for one year now and at $F54 a week, his salary is barely enough to allow them the luxury of spending $F20 on groceries each week—essentials like sugar, tea and flour. His bus fare to work is $F5 weekly and the children’s fare to school—52 cents daily. The family is luckier than most in that they have land to plant some of their daily food requirements. But life is still very hard, said Josephine. ‘Fifty dollars is nothing, especially as with the (introduction of) VAT, price of things have gone up.’ With the children growing up, the family found it difficult to stay in their one-room house and recently built another room and kitchen with whatever materials they could find. There will be another mouth to feed soon. Josie, as she is known at home, is pregnant. But she will look for work as soon as she has the baby. ‘The kids want this and that, sometimes I want new shoes or dresses but I can’t have these things as we barely make ends meet.’ She was working with a cleaning service for about eight months last year but left because there was no one to look after the children. She worked for six days and was paid $F24, of which $F5 went into bus fares.

With all the money they had saved up, the family had earlier borrowed money from the National Bank of Fiji and tried their
hand at dalo farming, but the dalo crop was destroyed, taking with it their money and hopes. This year they’ve planted ginger on a piece of land beside their home and are hoping, it’ll bring them some extra revenue. ‘It’s a hard life, you know,’ Josie tells us. ‘In some families where the man does not work, his wife runs away. But I’m going to look for a job and help my husband even though it’ll be hard on my children (Review (Suva), December 1992:15; cf. Barr 1990; Bryant 1992).

The Melanesian states are too poor and too poorly organised to embark on more than a few token housing schemes, often financed by international aid and sometimes with the consequent destruction of local initiative and responsibility. For the most part such approaches have fallen well behind target due to escalating costs or to difficulties in acquiring land. Even site and service schemes are not immune to underfulfilment because of difficulties in land acquisition and provision of infrastructure, and they do not necessarily meet the needs of the poorest urban residents. Both equity and efficiency are more likely to be achieved by the upgrading of existing settlements than by costly attempts to increase the supply of new houses. This conclusion amounts to an acknowledgment of the failure of state housing organisations to satisfactorily provide new housing stock for the relatively poor.

It is clearly important that housing is not divorced from urban economies where labour costs are such that they have discouraged industrialisation, in part because wages must be high to defray the cost of urban residence. Squatter settlements are growing in size and significance but in an unplanned way. It is symbolic of this trend that settlements in Honiara have gone from being called Temporary Housing Areas to Traditional Housing Areas, a measure both of their permanence and their limited modern facilities. Though settlements in Honiara and elsewhere in the region have been in place for more than 40 years, they have received few services from governments and municipal authorities. If housing provision can be integrated into urban planning and greater attention be devoted to the urban poor in settlements there could be real economic gains, especially if combined with the continued change in character of government housing authorities from producers to facilitators.
The situation concerning the provision of other urban services—and especially water supplies—is similar to that concerning housing. Despite the international priority given to the supply of adequate water and sanitation facilities, there is little evidence that these and other basic needs have any real priority in Melanesia, other than at times of services breakdown. There is evidence of limited investment in provision of services like water supplies, sewerage facilities, environmental management (street and stream cleaning and garbage disposal), open space, transport services, health centres, roads and electricity.

There is a very strong correlation between access to formal housing and access to other urban services. In developing countries, the best water supply and sewerage/sanitation services were commonly provided historically to the more affluent areas of cities even though these areas were more expensive to service from an engineering perspective since they were often on hilltops (Ludwig and Browder 1992). Services to poorer areas, meanwhile, were supplied inadequately or intermittently. Disproportionate investment is also evident in the provision of public urban facilities such as health centres and hospitals.

"The public works systems installed in colonial times creak and rust into obsolescence—every provincial centre in Papua New Guinea relies on water supply systems set up before independence."
In Port Moresby, these distinctions were already apparent by the late 1970s. Adequacy of water supply and toilet facilities in 1977 was significantly different in four distinct residential categories: at that time, 24 per cent of households in unplanned settlements had an adequate water supply compared with 95 per cent in formal housing areas (Papua New Guinea, Bureau of Statistics 1980:18). Since then these distinctions have become more rather than less apparent, and have contributed to social tension within urban areas. Divisions within Port Moresby are particularly acute.

Water supplies

There is little indication of the extent to which water is available to households within urban areas, or the extent to which there is wastage and loss of revenue. The crudest estimates suggest that in Papua New Guinea about half the urban households have water supplies and about 11 per cent of the urban population have a piped sewerage system. In Honiara the proportion served is somewhat higher. There are substantial differences between formal housing areas, where water is supplied to every block of land, and settlements, where the capacity to pay for water is less and the supply is least adequate. In Port Moresby, for example, since consumers must pay for water services, we would expect provision to be different in poor areas, but the capacity to pay can hardly be used as a justification for the absence of satisfactory community-type water supplies in many of the poor areas of town. The settlement on Gordon’s Ridge, for example, in 1983 had 31 taps (many of them unmetered and pirated from the main) for a population of slightly over a thousand. In some parts people had buckets and pans in perpetual lines near taps, and people further up the line moved them along as their own vessel got nearer to the tap. While there are said to be reasons why it has been difficult to supply water to some poor areas of the town (opposition from landowners, unsurveyed areas, no individual consumer to bill etc.), the system of government must be said to have failed to meet a basic need of quite large numbers of people. It has certainly failed to tackle the problems involved sufficiently vigorously. Recent typhoid cases in settlements in and near the NCD point up the dangers of this neglect (Morauta et al. 1986:101).
Though this is a relatively extreme situation, it is typical of several parts of the city, and reflects the wider if less severe problems of access to urban services. Since then the situation has not improved.

**Vanuatu**

Water supplies in Port Vila come from a spring and three bores near the Tagabe River and are thought to be close to the limits of extraction from the aquifer. A study is underway to establish the boundaries and capacity of the supply and a provincial protection zone has been delineated (which has no legal effect). Urban squatters have moved into this area and although enforcement notices have been issued for their removal no action has been taken. The piped distribution system is inefficient, up to 35 per cent of water was wasted because of leaking pipes in 1988, and the submersible pumps in the bores are near the end of their economic life (Halliburton 1992).

Urban water supply in Vanuatu is presently managed on an *ad hoc* basis. Governmental responsibilities are shared by the Public Works Department, the Department of Geology, Mines and Rural Water Supply, the Environmental Health Unit of the Department of Health, and a Water and Sanitation Advisory Group established in 1984. These roles are not proscribed in legislation but they are clarified in a draft Water Resources Bill, which provides for the setting up of a National Water Authority and the preparation of a national Resources Development Plan with all water resources being vested in the people of Vanuatu (Halliburton 1992). The passing of the new legislation and implementation of its provisions will clearly strengthen the government's capacity to manage urban water supply in Port Vila but the existing system will still need modernisation. In addition, new and much more expensive sources of supply from outside the existing urban area will have to be found and paid for.

**Papua New Guinea**

In Papua New Guinea the provision of water supplies in all urban areas except Port Moresby is the responsibility of the national Waterboard, which became a commercial statutory authority in 1987 in the last of a series of measures by different governments to rationalise the supply of water and sewerage services throughout the country. The Waterboard was transformed into a commercial statutory authority with the intention that it eventually be capable of funding urban
water supply and sewerage systems throughout the country from revenue raised from consumers. By having a single national system, it was also envisaged that the limited expertise available in several branches of engineering and management would be used more effectively.

The Papua New Guinea Waterboard has gradually taken over the water systems of most provincial capitals by creating Waterboard Districts, and it now serves 10 towns.

The transfer to Waterboard Districts has been characterized by the introduction of universal metering and an active policy of disconnection in case of non-payment. This has resulted in some reductions in the amount of non-revenue water. Public standposts, or other forms of communal supplies, are also being fitted with meters. In such cases, a community organization is responsible for collecting fees among users and payment to the Waterboard through an appointed individual (ADB 1992:32).

The uniform national tariff structure of water and sewerage charges is fairly progressive, and tariffs do not reflect the production cost of a particular system but the national average operations cost. This provides the basis for cross-subsidy between systems with different inherent operating and capital costs.

The Port Moresby Water Board is currently operated by the National Capital District Commission, but at different times has come under pressure to be linked to the national system. In 1973 water supply functions were transferred to Port Moresby City and these were taken over by the National Capital District Interim Commission in 1982. The Waterboard itself has argued strongly that it should be responsible for the management of Port Moresby's water and sewerage systems on several grounds: first, that it makes little sense to have a national system without the capital being part of it; second, that water and sewerage provision in the National Capital District is extremely inefficient and costly; third (and conversely), that the Waterboard could realise a profit in Port Moresby that would enable it to improve its ability to service other areas. Indeed it is generally argued that because most urban areas in Papua New Guinea are very small, it is only in Port Moresby that economies of scale would enable profitable operation.
Consequently the Waterboard has been extremely critical of the failure to create a unified national system. Its 1987 Annual Report recorded that the postponement of the decision to integrate the capital into the national system has had extremely serious effects on Waterboard operations throughout the country and prevented orderly development of the Waterboard’s capabilities. A significant aid project of benefit to consumers throughout the country has been delayed and may have been lost (Papua New Guinea Waterboard 1989:3).

Five years later, as the ADB noted, the situation has scarcely changed. The tariff structure of the Water Board is based on the principle of cross-subsidy between the larger, profit making water supply systems and the smaller districts, which are too small to be profit making. Of the existing Water Board Districts, only Lae can be run profitably. In the light of this, the incorporation of Port Moresby, previously operated by NCDIC [National Capital District Interim Commission], within the Water Board system is crucial to the Board’s future. Although the Water Board is intended to run as a self-financing organisation, it is still the recipient of government development grants (1992:33).

The Waterboard operates under the funding guidelines established by the Asian Development Bank. This means that a medium-sized town such as Mount Hagen operates at an annual loss of around 500,000 kina and is largely subsidised by the much larger town of Lae. The Mount Hagen Town Authority has pointed out that this position could only be reversed by increases in local water charges by one and one-half times. Such an increase would cripple development and force regional support systems and business out of Hagen (1991:31).

Assuming that this conclusion is reasonably accurate, it is necessary first to establish a national system, and second, to ensure the maintenance of cross-subsidisation.

The Waterboard has continued to seek to take over the Port Moresby system, but has recognised that, in keeping with the government’s user-pays policy, costs would rise (assuming that extra costs would be ploughed back into ensuring the viability of the system and that, by applying the national water costingsystem to Port Moresby, the progressive water rate would reduce water use, especially for gardens, and further contribute to ensuring the efficiency of the
system). Water use in Port Moresby has been estimated by the National Capital District Commission at an annual rate which is one of the highest rates of water usage in the world, and more than twice that of Sydney (Post Courier, 12 October 1992). One explanation for this high rate is wastage. In Honiara, at least a quarter of water supplied simply disappears through leaks (Solomons Star, 23 October 1992). Wastage there and in Port Moresby may be as high as 50 per cent. In Port Vila the rate of leakage was 35 per cent in 1988 but has improved considerably with the formation of a waste water detection unit (Halliburton 1992).

Knowledge that water rates will increase, and that capital city consumers will subsidise users other in towns in Papua New Guinea, have both contributed to the political disincentive to introduce a single national system. Outside Port Moresby there are some water supply problems and high costs in small towns such as Lorengau and Kandrian where the population is not large enough for economies of scale. In Kavieng there are rusty bores, and the Waterboard's coverage does not yet extend to such towns as Goroka and Vanimo. It is in these towns, beyond the range of the Waterboard, where there are often problems. At the end of 1992 there was a six-week water crisis in Kainantu that disrupted normal government services and business operations, and led to closure of both the provincial hospital and the high school for six weeks. The crisis occurred when landowners disconnected the main pipe supplying water to the town and demanded compensation of 100,000 kina (Times of Papua New Guinea, 21 January 1993, 11 February 1993). At much the same time the Kerema provincial hospital was closed indefinitely, the fourth closure in 1992, because of an inadequate water supply (Times of Papua New Guinea, 14 January 1993). Similar problems have been experienced elsewhere.

As the recent experience of Kainantu indicates, land issues are now complicating both the water supply system and garbage disposal. Landowners near a number of towns have 'used the town water supply as their pawn to demand compensation from the government' (Times of Papua New Guinea, 4 February 1993). At the end of January landowners at Mount Hagen demanded 200,000 kina compensation for the urban water supply on the grounds that the government had not met conditions they had set when payment was made in 1978 for the land where the reservoir was built. Somewhat
differently, but at the same time, Wewak landowners sought 500,000 kina because the Waterboard disconnected water supply to the hospital for non-payment of bills. Such problems have been difficult to resolve through bureaucratic means and have complicated urban water delivery systems and made water more expensive.

The capacity of the physical facilities for water supply provision in most towns other than the capital cities of Papua New Guinea, Solomon Islands and Vanuatu is adequate, since they were designed on the basis of growth projections that were never realised. The main problems with most water supply systems have been

- the excessive amount of water that is wasted (in the sense that it does not generate income), either through physical leakage, non-metering (largely because of illegal connections) or the failure or inability to collect revenue
- the difficulty of maintaining water supply systems (and reducing leakages) with limited managerial and technical expertise.

The ability of water boards to respond to these problems is further limited by their failure to raise revenue effectively through detecting (and penalising) illegal connections and through the lack of efficient recording, billing and collecting systems. In part this is a function of the concept of charging for water being relatively new and not universally accepted.

The conjunction of these problems has led to supply interruptions, especially in Port Moresby, and to a lesser extent in Honiara and other smaller urban centres. In Port Moresby in the 1992 dry season, as in earlier years, shortages and disruptions were not unusual; some isolated suburbs, such as Kanudi, were without a formal water supply for two years.

The city authorities of Port Moresby have to seriously address the future of a safe reliable water supply to the city...The water system is now over thirty years old and can no longer cope with the increasing demands of the 195,000 consumers in the city and its environs. The city’s excuse about old water pipes and not enough pressure to fill up the reservoirs is beginning to wear thin now. This is becoming apparent by the senseless acts of vandalism that occur to the pipes each time water supply to parts of the city is disrupted for longer than a day...it is time to stop and start some serious constructive planning for the future (Times of Papua New Guinea, 16 July 1992).
Supply problems have reduced the quality of life for many residents; water for drinking, cooking, washing and watering is intermittently available. There is no indication of the extent to which contemporary shortages may have contributed to health problems, but an earlier detailed study of the health of a poor urban community in Madang revealed that the main potential danger to health was an inadequate water supply (Morauta et al. 1986:100). Hence it is probable that shortages have worsened urban health.

Water shortages have also imposed economic costs. The main hotel in Port Moresby spent 30,000 kina in one month on carting water; another lost guests because of supply problems; some schools had classes only up to noon because of blocked toilets; laundries, soft-drink and beer manufacturers were unable to work at full capacity; and the national tax collector estimated losses to his office of up to 10 million kina (Post Courier, 19 August 1992). A short-term ban on the construction of high-rise buildings, imposed because they were believed to have high water demands, resulted in the loss of some jobs in the construction sector. Individuals short of water have constructed illegal outlets from water pipes, sabotaging the pipes to satisfy their own needs but leading to greater losses. Water carts to Baruni, Tarana, Porebada and other outlying affected areas are expensive. Home gardens cannot be watered regularly. Thus the unavailability of a single resource in a major urban area has considerable social and economic consequences.

Central to the Port Moresby water supply problem is that the existing water supply system for the National Capital District was designed for a small town of around 60,000 residents in the 1960s, and in the subsequent quarter of a century no major upgrading of the system has been undertaken to supply the growing population and meet increased demand. Roads have taken priority. Broadly this situation is also true of other urban services in Papua New Guinea and in other Melanesian towns, as the public works systems installed in colonial times creak and rust into obsolescence. For water supply this is not merely metaphor; every provincial centre in Papua New Guinea relies on water supply systems set up before independence. Leaks are difficult to detect without adequate modern equipment. Storm overflows, dry weather shortages, aging and damaged assets
(including the pipes), illegal connections, and failures to collect revenue all exacerbate the basic problems.

As in other areas of planning, there have been a series of studies of the capital's water supply system. A 1980 report contained recommendations for upgrading the system and a 1987 report made similar recommendations. Few have been implemented. Currently another overview of Port Moresby's water supply problems is being undertaken by Japanese consultants. The study involves a master plan for using water from the Laloki River to give a more reliable supply, and for establishing a pressure zoning system that will reduce leakage and extend water supplies to all parts of the city (Times of Papua New Guinea, 23 December 1992). The proposal thus aims at improving both supply and distribution. It has been estimated by David Unagi, Chairman of the National Capital District Commission, that 'remedial measures' alone to rehabilitate the city water supply will cost 12.8 million kina (Times of Papua New Guinea, 4 February 1993). In Honiara a scheme to construct a reservoir at Lungga has been submitted for Japanese aid support, but may conflict with national priorities for privatisation.

**Solomon Islands**  Port Moresby's problems are considerable, and worsening over time, but not unique. Honiara, where there is also a pronounced dry season, has experienced similar problems. In October 1992 the Ministry of Health declared a water emergency in Honiara after one of the four main water sources was found to be polluted. Urban residents served by the Rove reservoir reported dirt and other impurities, including tadpoles, coming from their taps; tap water was banned for drinking and cooking while restaurants were ordered to close down unless they had alternative supplies. The reasons for Honiara's problem were manifold: first, the water treatment plant was old and no longer wholly adequate; second, tilapia were bred in the reservoir to reduce the frog and tadpole population but the rising cost of urban living had led to urban residents fishing out the bulk of the tilapia population; and third, the long dry season had resulted in the water level falling to the point where the outlets were inadequate. As in Port Moresby and elsewhere, management of urban service provision is difficult with declining revenue provision and limited
available skills—especially the technical skills that are necessary for the planning and maintenance of complex engineering systems.

The bulk of the population in Honiara has a piped water supply system, though on the fringe of the town some of the population are dependent on streams and springs. The supply is fed from three springs and five boreholes. Because of the karst limestone environment the springs sometimes become turbid, and there are doubts about the long-term viability of these sources. There is also concern that the Panatina borehole may become polluted if there is poorly planned urban expansion in that area. The recently completed Noro water supply system has a surface source and a treatment plant from which the water is pumped to a reservoir and supplied to Noro township by a gravity system. A tuna cannery is its main consumer.

In Solomon Islands provincial centres water resources consist of surface sources (Tulagi, Gizo), springs (Buala, Auki, Kirakira, Lata, partly Gizo), ground water (partly Gizo, Munda) and roof catchments (Gizo). Kirakira, Lata, Buala and Tulagi have gravity systems; the supply of Auki and Gizo includes pumping. No treatment is carried out. In three centres (Auki, Tulagi and Gizo), consumers are metered; elsewhere, they pay a flat rate. Because of a lack of qualified personnel and finance, all these systems are in a seriously rundown condition resulting in interruptions, low pressure and poor water quality. Consequently, meters do not work or consumers are not willing to pay. In some cases it is impossible physically to disconnect the system to enforce payment, with the result that revenues are too low to operate and maintain these systems adequately (de Haan 1992). In most provincial centres the situation is worse than in Honiara, since there is even less technical expertise available and monitoring from the centre is inadequate.

**Fiji**

The water supply situation in metropolitan Suva is good for those housed in formal accommodation, with 95 to 99 per cent of dwelling units with water connections apart from the Central and Western Wards in Lami Town (Olsen 1991). The Suva Water Supply Master Plan, completed in the mid-1980s (Lawrie, Montgomerie and Pettit 1984), covers projected water supply requirements to the year 2006. Existing sources of supply from the Waimanu and Rewa Rivers, Savura Creek and some small gravity intakes are, together with expanded reservoir capacity,
considered to be sufficient for future needs. Two large treatment plants at Tamavua and Waila currently handle almost all water purification and the small plant at Nausori is planned to close. The excellent provision of water in Suva is an indication of the favourable resource situation in western Viti Levu and the city's relatively early urbanisation by Pacific standards. This is reflected in the most advanced water supply engineering found in any of the four Melanesian capital cities.

**Organisation of water supplies**

In Papua New Guinea and Solomon Islands the provision of water supplies is fragmented. The Water Unit of the Solomon Islands Ministry of Transport, Works and Utilities (MTWU) is responsible for the water supply of Honiara and Noro and provides technical assistance for the provinces and rural areas if requested; it is also responsible for the maintenance and operation of Honiara's sewerage system. The provincial governments are responsible for the operation and maintenance of water supply, sanitation systems and refuse collection in provincial urban centres. The Honiara Municipal Authority takes care of cleaning out septic tanks and waste collection in Honiara. Within a context of limited technical skills and human resource capability these divisions tend to hinder the smooth operation of water supply and sanitation systems. Indeed, early in 1992 it was said that 'at present there is some confusion as to who should be providing water to the towns in the Provinces—the local Provincial Governments or the central Ministry of Transport, Works and Utilities Water Unit' (Solomon Islands MTWU 1992:2). Not surprisingly the provision of water in urban areas has been inadequate. Solomon Islands is seeking to establish a national Solomon Islands Water Authority with responsibility for urban water supply throughout the major towns.

Water supplies in rural areas in Papua New Guinea and Solomon Islands are the responsibility of the Department of Health, whereas in Vanuatu it is the Department of Geology, Mines and Rural Water Supply. In practical terms the Papua New Guinea Waterboard’s chief interests have been in areas where the government’s user-pays policies can be applied. This is generally not the case in scattered rural communities where alternative water supplies (e.g. springs and
rainwater) are usually available. Where there are formal water supply projects in rural areas these are financed through grants. In general, policies of self-help and community participation in the construction and management of water supply systems are the basis for supply outside urban centres.

Before independence in Vanuatu the French company Société Lyonnaise des Eaux had supplied some water in the country via an affermage system

Under the French system, water supply companies have a local monopoly, but the tariff is determined by a public authority. The public authority (typically a municipality) often builds and operates the system within its own resources. This is known as the régie direct system. It can be managed either by the public authority’s own staff (régie simple), or by an autonomous board (régie autonome) which is a separate local entity owned by the public authority. When a private sector operator is employed, the three most common arrangements are the management contract (gérance), the concession system and the affermage system (Roth 1987:252).

Under the affermage system the public authority constructs the system and contracts out to a single private operator who undertakes operation and maintenance work, collection of charges and consumer relations. A similar arrangement is currently under investigation in Port Vila but will not proceed until new legislation, the Draft Water Resources Bill, is in place. The Bill provides for the setting up of a Water Authority to integrate and manage water resource matters and to prepare a National Water Resources Development Plan.

In Fiji the Ministry of Infrastructure, Public Works and Maritime controls all water supply and sewerage in the country but plans are also in hand to semi-privatise this through a new corporation.

Sanitation

Papua New Guinea In Papua New Guinea the organisational structure for sewerage is similar to that of the water supply system though only 17 areas have piped sewerage systems. Where water supplies are provided by the Waterboard, so too is operation and management of the sewerage system. In most towns there is a full-piped sewerage system serving...
the needs of the formal housing and commercial sectors, since soil characteristics tend to inhibit the widespread use of septic tanks. Where septic tanks do occur, maintenance is the responsibility of individual households. In some towns, such as Mount Hagen, desludging is done by the local authority; more generally private contractors offer desludging and inspection services (ADB 1992:34).

The general availability of sewerage systems even in small, low-density towns is an example of a high-standard but high-cost infrastructure. It has led to expectations higher than can generally be met as towns expand (ADB 1992:51), and has increased the cost—and therefore the necessary subsidy—of urban sewerage schemes. As with garbage collection, most local authorities have contracted out the maintenance of low-cost sanitation systems, with the local authority collecting charges and paying private contractors to carry out the operations.

Solomon Islands

The same broad distinction is true of Solomon Islands. Most parts of Honiara are served by sewerage systems, though some areas discharge waste via septic tanks into the Mataniko River or directly into the sea. The 14 or so outfalls are in poor condition, causing serious pollution. High water tables in the Honiara area often preclude the use of septic systems and accentuate marine pollution. The Naha station intermittently pumps out untreated sewage at Kukum and there is inadequate capacity to empty septic tanks as regularly as is required, a situation that creates further health hazards.

In the squatter settlements sanitation facilities vary from customary bush disposal to pit latrines and a few septic tanks. About 30 per cent of the 1986 urban population were served by a conventional sewerage system, but this proportion has now decreased. A 1986 study recommended that an augmentation and rehabilitation scheme be urgently implemented, to eliminate most of the contaminated outfalls into the sea and the Mataniko River. This was never undertaken, hence, ‘regardless of the population in the year 2000 there is an existing deficit which already requires action’ (Martin 1992:6).

In most provincial centres in Solomon Islands, sewage is generally disposed of through septic tanks and soakaways. Sewerage systems serve parts of Kirakira, Auki and Gizo. In Auki, Kirakira, Buala and
Gizo, septic tanks drainage is often poor because of high groundwater tables. Often these tanks drain into surface drains (Buala, Gizo) or directly into the sea (Gizo), causing serious pollution. In Gizo, overhang latrines are also being used. In Honiara, Gizo and Auki the upgrading of sewage facilities is now urgent.

Vanuatu Neither Port Vila nor Luganville in Vanuatu possesses a reticulated sewerage collection and treatment system. Some 63 per cent of urban households were found in the 1986 census to use flush toilets connected to septic tanks (Halliburton 1992). Sewerage plans were prepared for Port Vila by the WHO in 1986 to address the increasingly unsatisfactory situation of sewage effluent being treated only in five small plants—at the three resorts of Radisson Royal Palms, Le Lagon and Iririki Island Resort, at the Central Hospital, and at the Reserve Bank. In 1992 only two of these plants were working properly and none met adequate standards.

The only legislation in Vanuatu specifically directed towards sanitation dates back to 1929 and relates to an administrative structure long defunct.

A main issue relating to institutional and legal arrangements for sewerage is that no one agency has a clear responsibility to develop and manage reticulated sewerage systems. *Joint Regulation 6* [of 1929] is out of date and quite inadequate at establishing an appropriate responsibility or responsibilities. Options for the establishment of appropriate responsibilities include obliging the Municipalities which...already have compatible general duties and considerable relevant powers. However, at least in the short term, the Municipalities lack the experience and probably also the expertise to establish and operate sewerage systems (Halliburton 1992:39).

Fiji Considerable progress has been made in Suva toward implementing a metropolitan sewerage scheme. In 1970 the only parts of the city with sewers were the City Centre, where raw sewage was discharged into the harbour near the Travel Lodge Hotel, and at Raiwaqa where sewage was treated from Housing Authority estates. The 1971 Greater Suva Sewerage Scheme recommended that the whole region be sewered and treatment take place at a regional plant at Kinoya
with an ocean outfall into Laucala Bay (Wood 1981). The first two stages were largely completed by 1984 at a cost of F$10.7 million. The scheme is planned to service a population of some 350,000 over the period to 2010. Costs are being contained by building sewerage lines up existing water courses, following existing water pipelines with minimal use of excavating machinery and concrete.

A new study suggests that the population in metropolitan Suva will reach 250,000 by 2001 (moderate projection) with 93,000 living in towns and 157,000 outside the declared municipalities. Infrastructure costs for meeting the water supply, sewerage, electricity and roads to serve the increased population are likely to come to some F$6 million per year over the 10 years for new development and F$42 million for a moderate expansion of sewerage during the 1991–96 period (Olsen 1991).

**Solid waste disposal**

Garbage collection and town cleaning are handled by local urban councils in all the Melanesian states. Collection and disposal are usually contracted out to private operators, with revenue collected by the urban authority. In the larger towns this system works efficiently, though in Honiara the lack of compactors makes it difficult. Additional town cleaning is usually undertaken on particular occasions by teams of hired workers. Experience from Mount Hagen, Port Moresby, Daru and Honiara suggests that teams of women are the most cost-effective. In the case of Daru it has been noted that not only are women’s groups more conscientious but that the income is more likely to be spent on improving the diet of children and making improvements to houses than if it were earned by men (Times of Papua New Guinea, 26 November 1992).

Disposal of waste is invariably through open dumping, with different degrees of site management, and there are problems in several areas with obtaining adequate suitable land for waste disposal. In some cases waste is deposited in unsuitable areas, such as in rivers and along beaches (ADB 1992:36) and in markets. Various Papua New Guinea towns have banned betel nut sales in markets because chewing creates pollution problems. This has led, however, to

- substantial lost revenue by market authorities including, in Port Moresby, the National Capital District Commission
• the proliferation of smaller, peripheral markets and stalls in private residences
• a rapid increase in prices and considerable inefficiency.

While the NCDC has recently sought arrest powers for police and private security firms to fine litterers, there have been few effective prosecutions. There is also a substantial degree of private dumping of waste material at places more convenient to individuals than the official sites. This has become unsightly, especially in parts of Port Moresby—notably along urban waterways and on the Baruni backroad, where waste management is particularly inadequate. In Honiara there is a lack of suitable infill dumps within the urban area, and the present dump site at Ranadi is virtually full. The Ranadi site is poorly maintained, often exhibiting foul conditions, and fly control by pesticides may be causing water pollution because of its coastal location.

One significant form of garbage disposal in the urban centres of Papua New Guinea and Solomon Islands is burning, especially in the capital cities. Burning is so prevalent in these areas that urban Melanesians have sometimes been regarded as pyromaniacs. The phenomenon is well described in one account of the Trobriand Islands migrants and their gardens in Port Moresby.

Smoke is the *sine qua non* of gardening success. Not to burn off the undergrowth and purify the soil would be unthinkable... However, in the city, where the ‘weak’ soil needs it most, smoking causes problems. One backyard gardener living in a semi-industrial area was threatened by the Interim Commission with ‘unpleasant action’ in accordance with the Nuisance Rule for piling up rubbish he burned in front of his house and sending smoke and...ashes in the neighbourhood. The Commission’s letter became a running joke...with remarks about the gardener’s imminent arrest: how he deserved a special prize for gardening under hazardous urban conditions, or else for causing them (Battaglia 1986:41).

Burning has one advantage in that it lessens the amount of material that has to be removed and dumped elsewhere. It also has several disadvantages. Vegetative matter that might be used for composting to aid the growth of living vegetation, which is of aesthetic and nutritional value, is destroyed in the process. Fires sometimes get out of control and destroy property. Most significantly, especially in the dry seasons—which are of considerable duration in both Port
Moresby and Honiara—a pall of smoke hangs over the cities, and alongside dust levels (especially in limestone Honiara) provides a very high level of air pollution, which is unsightly and a direct contributor to bronchial disorders. Less immediately the practice has a negative impact on climate change. A public education program is urgently required in all Melanesian cities to discourage the unnecessary lighting of fires.

The problem of solid waste disposal in newly urbanising and expanding Melanesian cities is illustrated by the experience of Suva where the average volume per capita of solid waste generated per year is 0.64 metric tons. The requirements of Suva City and Nausori Town (which both have three collections per week) and Lami Town (two collections) are met primarily and adequately by a landfill site in Lami but it is close to the harbour and residential areas and requires relocation on environmental grounds. Services in the rapidly growing peri-urban areas are not satisfactory and these areas are likely to generate an additional 24,000 tons of solid waste by the year 2001 (almost half the total presently generated by Suva City). This provides further evidence of the need to upgrade the quality of peri-urban administration to proper municipal standards in the near future (Olsen 1991).

Though the problems of urban management are usually regarded as most substantial in the largest cities, small towns may also be affected. In October 1992 the township of Maprik, East Sepik, was officially closed down and government services and about 300 personnel were withdrawn because of serious sanitation problems. The town’s sanitation dump site was full and overflowing, posing a significant health threat. Its landowners had become ‘fed up with the lack of a proper sewerage dump and decided to force the closure of the site’ (Post Courier, 15 October 1992). The situation was attributed to a lack of finance to construct adequate septic toilets, and failure to identify a new dump site, both considered to be a result of the provincial government failing to respond to small town need (Post Courier, 15 October 1992). Mismanagement of this kind resulted in some government services for the Maprik district being suspended indefinitely.

**Services in settlements**

In each of the four capital cities, the squatter settlements, if they are serviced at all, are provided with standpipes and the water supply is
usually paid for collectively. When site and service schemes were still in place—more than a decade ago in Port Moresby—communal water supplies were provided. This is no longer always so, though standpipes are provided free of charge in Lae. Sewage facilities, too, are no longer provided; pit latrines are normal, but their quality varies greatly. Near the sea this is the major area of deposition, with inevitable pollution problems in areas that are used for fishing and recreation.

The lack of facilities necessarily causes problems in some settlements. In Mount Hagen, where residents in some settlements have been unable to afford to purchase and/or construct formal water supplies, water has been taken from polluted urban creeks, leading to cases of typhoid. Ice-blocks are banned from sale in the Mount Hagen market, in case they are made from polluted water from the settlements. In theory, as in Honiara, if payments for urban water are not forthcoming, the Water Unit closes them down. In practice payment may not be collected efficiently and there is considerable wastage and loss of revenue. Efficiency poses its own problems; at Erima, a Port Moresby squatter settlement, it was explained that residents had cut the water pipes because ‘The NCDC cut off the water supplies if we don’t pay!’ In any event, though water supply problems may appear greatest in formal housing areas, where disruption poses a range of challenges, in the long term they are much more serious in squatter settlements.

Water rates are often not collected in anything like their entirety. This has increased the effective cost of maintaining water and sewerage systems, and is some justification for moving towards privatisation. When the National Capital District Commission increased water rates in Port Moresby by 15 per cent at the start of 1993 it was noted that the announcement at the weekend of a 15 per cent increase in water rates has not been welcomed. Villages and settlements that rely on water carts will have to be treated fairly by the city authorities. There has to be some ways of ensuring that the water carts do not take advantage of the increase and overcharge the residents...The city administration has to look at getting some order into the system so that households and every consumer pay their bill. Many residents are billed without their meter read. On the other hand there are many more who should have a meter connected to their house but do not, thus they do not pay a single toea for the water they consume...support will only come if all the
consumers in the city are billed regardless of whether they live in a high covenant home or in a settlement. The tax payers have enough on their plate without having to subsidise other residents who have been living like parasites (Times of Papua New Guinea, 7 January 1993).

Collecting charges for water use is therefore not only about financing the water supply system: it is also about efficiency and equity. If there is no perception of equity, temptations to avoid payment and/or gain illegal access to the system inevitably increase. It is this situation that has tended to prevail in the past in Port Moresby, and to a lesser extent elsewhere. At the same time pricing water properly may encourage people to treat it as a more precious commodity.

**Water for the future**

Throughout Melanesia water resources are under growing pressure, not only because of population growth and urbanisation, but also because of new or proliferating needs. This will be even more apparent in Honiara when the new brewery is established (one has already been established in Port Vila). A single brewery consumes around 80,000 gallons per day. Honiara’s is expected to be located in the Ranadi area where water is already in short supply, hence development will probably occur at the expense of domestic water users. The new parliament buildings here and in Port Vila may have a similar effect.

This proliferation of needs has been particularly noticeable over the last two decades and has alerted resource managers to the need to harvest and use resources in less wasteful and environmentally friendlier ways. Monitoring new urban water supply and sewerage/sanitation projects is essential but such follow-up activities are usually minimal in developing countries. The checklist should include environmental considerations, socioeconomic aspects, siting considerations, design, construction, and operations (Ludwig and Browder 1992).

Water is a resource which in the past has been taken more or less for granted. Many of the costs of supply have not been fully passed on to individual users. Suppliers and users of water, in town and country, have now realised that water, like other resources, is not unlimited and that water use is but a part of the wider aspect of land use management. The number of stakeholders is growing and it is certain
that there will be more and more views on how the benefits and efficiency of supply should be assessed. Conflicts will become increasingly complex and disputes more intense.

The Asian Development Bank has concluded for Papua New Guinea that ‘an integrated water supply and sanitation development plan should be prepared for the sector’ (ADB 1987:ix). The same conclusion is valid for Solomon Islands and Vanuatu (plans are already in place in Suva). It is one thing to plan adequately but quite another to implement the recommendations put forward and manage the resultant scheme. Too often, schemes have been individual and grandiose, and are poorly linked to other aspects of development. For governments it has often been easier to build large projects like dams (especially if they are paid for by aid donors) than to remove effective subsidies to urban water users, or to examine how smaller schemes might be better combined with other components of urban development, especially road and electricity provision.

Large public investment schemes quickly become vehicles for the interests of powerful groups—better-off consumers, employees of the water utility and politicians—unless management is exceptional. Hence scarce public resources are used on unnecessarily expensive construction projects, operating efficiency is low, employment is maintained at very high levels, and subsidies are needed for water and sanitation, leaving few resources to extend services to the poor (Briscoe 1992). Such temptations need to be resisted in the future. Numerous studies have indicated that poor people want and are willing to pay for services of relatively high quality and reliability. It is appropriate to shift from a supply-driven orientation to a situation where households are offered a range of choices. This will be difficult since suppliers need incentives to reduce costs and be accountable to users, and is likely to require some degree of privatisation. Scarce public funds should be used for those services, like treatment and disposal of wastes, that provide substantial communal benefits.

“Too often there has been resort to individual, grandiose schemes that are poorly linked to other aspects of development.”


PLANNING THE FUTURE


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'Slowly population growth and migration are contributing to a more urban future for Melanesia'

'Urbanisation represents not only the result of an increase in the extent of migration but also an intended long-term change of residence'

'The combination of disputed land ownership, increased claims for compensation from landowners and mismanagement have slowed the process of urban development and rendered it much more complex and expensive than in most other countries'

'In general urban authorities are underfunded for the tasks that they are expected to perform'

'The Melanesian states are too poor and too poorly organised to embark on more than a few token housing schemes, often financed by international aid and sometimes with the consequent destruction of local initiative and responsibility'

'The public works systems installed in colonial times creak and rust into obsolescence—every provincial centre in Papua New Guinea relies on water supply systems set up before independence'

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