THE STATE OF HUMAN SETTLEMENTS AND URBANISATION IN THE PACIFIC ISLANDS

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FOREWORD

The Second United Nations Conference on Human Settlements (Habitat II) will be held in Istanbul, Turkey in June 1996. Although the conference is being called a 'City Summit' it will deal not only with exploding cities, but also with villages, hamlets and towns and will therefore be of great relevance to the Pacific region where a growing proportion of the population is becoming urban or peri-urban. Habitat II will focus upon ways and means of making human settlements more healthy, safe and sustainable. Specifically it will address the issues of: adequate shelter for all, urban governance, the needs of women and vulnerable social groups, the 'brown agenda' or environmental management and sustainability of human settlements, and poverty alleviation, employment generation and social integration.

Through the initiative of UNCHS, UNDP (Fiji) has compiled a regional report on the major themes of Habitat II based on existing regional and national documentation of the human settlement situation in its ten countries of coverage as well as the submission of 'Best Practices' from five of those countries. These Best Practices, submitted by the Governments of Federated States of Micronesia, Fiji, Kiribati, Palau and Republic of the Marshall Islands, provide excellent examples of actions which could serve as models to other parts of the region and indeed to the world and which can be adapted to similar situations. They demonstrate tangible and measurable improvements in the quality of life in the living environments of people and can be regarded as truly sustainable models of human settlement. The Best Practices may be regarded as important building blocks in a region where issues of shelter provision, vulnerability, marginalisation of minority communities, women and youth, environmental deterioration, unemployment and community participation have increasingly high priority on the development agenda. The positive outcomes of these Best Practices should be viewed as evidence of what *can* be done even in countries which are small and sometimes considered to be resource poor.

It is intended that this report will stimulate discussion about the increasingly obvious issues of urbanisation and environmental and social pressure on human settlements in the Pacific region. More importantly, the debate will hopefully lead to the incorporation of these issues into future planning initiatives.

UNDP
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Abbreviations and Acronyms

ADB	Asian Development Bank
AusAID	Australian Agency for International Development
FSM	Federated States of Micronesia
KHC	Kiribati Housing Corporation
GDP	Gross Domestic Product
NEMS	National Environment Management Strategy
NLTB	Native Lands Trust Board
NGOs	Non Government Organisations
SPC	South Pacific Commission
UKODA	United Kingdom Overseas Development Assistance
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCHS	United Nations Centre for Human Settlements (HABITAT)
UNDHA	United Nations Department of Humanitarian Affairs
UNDP	United Nations Development Programme

SUMMARY - FINDINGS AND RECOMMENDATIONS

Urbanisation and the resulting change in the nature of human settlements in the Pacific represents one of the major challenges facing Pacific communities within the next decade. The process of urbanisation and its impact on towns and villages in the region, both positive and negative, appears inevitable despite moves by some Pacific countries to offset this growth to other islands. The more visible indicators of change in human settlements in the Pacific are the rise in squatter housing and poverty, in particular urban poverty, and the decline in the quality of the urban environment, especially standards of shelter, infrastructure and environmental management. These issues all point to a growing crisis which neither the community nor government have been able to reverse. The major problems facing urban centres in the Pacific include:

- **serious shortages of land and conflicts with traditional land tenure,**

- **falling standards of infrastructure,**

- **an increase in the number of squatter settlements and informal housing, and**

- **poverty, vulnerability and environmental degradation.**

The growth of population and the rapidity of that growth have resulted in patterns of human settlements and urbanisation which are unique to the Pacific. High population growth is either polarised in one or two key islands in each country such as in Majuro in the Marshall Islands, Funafuti in Tuvalu and South Tarawa in Kiribati or spread out and fragmented over larger islands such as in Fiji, Vanuatu and the Solomon Islands. Whether the islands are mountainous or small, the isolated and scattered nature of the islands means the provision of transport, communications and other goods and services to human settlements is increasingly difficult and unreliable. Fuelled by rural-urban migration as well as natural growth rates, this shift in the distribution of population from rural villages and towns to urban centres may for many human settlements prove to be unsustainable.

Most affected are the key human settlements in the atoll nations of Kiribati, Marshall Islands and Tuvalu where the fundamental constraints underlying their growth such as restricted land area, high population growth rates and overcrowding and a socio-cultural reluctance to adequately deal with the problems, have yet to be comprehensively addressed. Larger human settlements such as Suva in Fiji, Port Vila in Vanuatu and Honiara in the Solomon Islands also face the stresses of rapid urban growth. These include growing inequalities in access to income and power, rising poverty, increasing rural-urban migration, lack of basic services and delayed response of governments to manage the issues.

Essential to the social and economic development of the urban populations is adequate water supply and sanitation services. The failure to recognise these as key urban issues is contributing to wasteful use of water resources, to growing health problems and to environmental degradation. Poor water and sanitation services in urban areas undermine sector programmes to alleviate poverty and meet basic human needs, and do little to improve the productivity and efficiency of the urban economy.

The growing data on poverty and vulnerability trends in Pacific urban areas reveal the following:

- as the shift in national populations is to urban areas, poverty is becoming an increasingly urban issue.

- relative poverty and vulnerability persist across all Pacific countries and urban areas, and those with relatively high levels of GDP such as Palau, Marshall Islands and FSM, are not excluded.

- the prime causes of poverty and vulnerability must be analysed in the context of each country's political, economic and social situation as there is a range of sources and causes in producing both inequalities and relative poverty. For example, poverty and overcrowding in South Tarawa, Kiribati, have a key causal relationship to issues of landlessness and a finite island land supply.

- burgeoning urban unemployment and under-utilsation in the informal and subsistence sectors are directly associated with rising levels of urban poverty and declining quality of life in all Pacific urban centres.

- most governments do not appear to take the issue of poverty seriously, although most recognise that sections of their populations are becoming increasingly vulnerable to poverty.

Many of the emerging urban based issues are new for Pacific island communities. As a result, the urban management responses, embodied in varying policies and strategies, are often unclear. For example, there is a generally poor response to urban disaster preparedness and mitigation. The need for urban management and human settlements planning in the Pacific has evolved rapidly and needs to become a central focus for long-term planning. To a large degree, many of the symptoms of the burgeoning urban change such as poverty and vulnerability mirror the changes happening in regional and global economies. To this end, urban management is likely to be more successful if tied into national sectoral objectives of:

- urban economic reform;

- environmental sustainability;

- social justice and equity considerations such as land reform.

Both economic and urban reform should be undertaken in tandem so that both deliver local and national economic gains.

Achievement of sustainable livelihoods in human settlements in the coming decade will require Pacific governments and communities to set clear strategic directions and priorities for urban settlements. It is essential that the required urban solutions are not overly technical in nature but contain an honest appraisal of the economic, social and environmental constraints and opportunities, including the underlying socio-cultural base of each country. Governments and communities should not allow further deterioration in the quality of life in Pacific human settlements. Integration of traditional decision-making structures and community groups at the village and local government level, within the wider urban decision-

making structure, is critical to the success of urban management and planning. Linkages between urban management, planning and the budgetary process will improve efficiencies and clarify linkages. This can be facilitated via a number of urban programming tools such as an *Urban Development Program* which clarifies the links between planning policy, capital expenditure and government works programmes within defined human settlement areas.

The governments and people of the Pacific island countries have taken major initiatives in recent years to begin to articulate their urban development needs and priorities. The examples of *'Best Practices'* as contributed by Pacific governments in Section 3 of this report, especially in the basic human settlement areas of housing, land and water, provide an indicator of actions which can be strongly considered for further application in like or similar forms. The *'Best Practices'*, as outlined, are initiatives, actions and projects undertaken in the Pacific which have resulted in measurable improvements in the quality of life and living environments of islanders in a sustainable way. Further, the strength of Pacific cultures and the reality that urban issues such as poverty and vulnerability are now being discussed in public fora, are positive signs for the future. Yet, much work remains to be done in facing the current and future challenges and ensuring that this and other issues, such as access to shelter and land, remain on the development agenda. The *'Pacific Regional Plan of Action, 1995-2000'* (Chapter 5) recommends a number of building blocks for country specific plans. These include the preparation of a regional human settlement database, which should be based on the UNCHS Urban Indicators criteria as well as the establishment of a Pacific Urban Network.

In the light of the matters raised in the *'Pacific Regional Plan of Action, 1996 - 2000'* and the themes of the forthcoming Habitat II conference, the recommended direction of action for all agencies, governments and other participants in the Pacific is to:

- **expand activities on urban programming at the country and regional level;**

- **prepare policy and position papers on major Pacific urban topics, for example, urban poverty eradication, urban indicators, urban economy performance, affordable water and sanitation options;**

- **provide regional and country co-ordination on urban matters;**

- **build upon existing community initiatives and mobilise other existing resources; and**

- **strengthen the capacity of regional organisations to provide technical support to country offices on urban management, especially urban programming and planning.**

1. CHAPTER ONE

HUMAN SETTLEMENTS AND URBANISATION SITUATION AND TRENDS IN THE PACIFIC

The Setting

The Pacific can be considered as comprising two vastly differing sub-regions, namely, the Pacific island countries, and Australia and New Zealand. Australia and New Zealand are heavily urbanised with in excess of 80% of their population defined as urban. The remaining island countries form the Pacific sub-region of which ten UNDP island countries are the focus of this report, namely, Fiji, Kiribati, Nauru, Solomon Islands, Tonga, Tuvalu, Vanuatu, Federated States of Micronesia, Marshall Islands and Palau. The Pacific sub-region is composed of a vast array of scattered islands of varying origins including coral atolls, islands of volcanic derivation while others are continental islands. The Pacific islands can be commonly grouped into either Melanesia, Micronesia or Polynesia. Melanesia covers the larger islands closer to Australia such as Vanuatu, Solomon Islands and Fiji. Micronesia (the 'small islands') includes over 2,000 islands, atolls and islets to the north of Melanesia and a narrow Polynesian 'corridor' linking the Society Islands with south-east Asia. Polynesia ('many islands') includes the scattered islands in the Central Pacific such as Tonga.

In these Pacific islands urbanisation of towns and villages is a recent phenomenon with an increasing proportion of the population in human settlements now classified as urban. Of the ten countries that comprise the UNDP Pacific sub-region, there is only one country which has less than 25% of population living in urban areas. In three Pacific countries, more than 50% of the population is urban with most other countries urbanising at a rapid rate. The issues facing urban settlements of the Pacific are similar to those faced by many other regions, namely:

- **shelter provision and housing;**

- **access to land;**

- **overcrowding and environmental health problems;**

- **major infrastructure shortages;**

- **pollution;**

- **overcrowding;**

- **poverty and marginalisation of minority communities; and**

- **urban management and community participation.**

Defining 'urban' in a Pacific context is increasingly difficult and one should be wary of its applicability over a range of islands and human settlements covering a vast area. In some countries such as the atoll islands, the smallness of the islands and lack of land means that all villages and towns, both rural and urban, are classed as urban on the basis of high population growth rates and densities. The movement from rural to urban and vice versa is somewhat

difficult to measure in these confined settings. In other countries, traditional land holders still hold land in urban areas with strict kinship rights affecting its development. While the land and its inhabitants may be classed as urban, any development of land classed as urban to members outside the family is often prohibited. Movement not only between villages, but migration between islands and the urban areas, including the sending of remittances, as well as country variations in census definitions, collection and analysis, all make the issue of deciding who and what is urban or rural open to debate.

Human Development Context

Although there are significant variations both between and within countries, Pacific islanders generally enjoy reasonable standards of living which compare favourably with developing countries of equivalent levels of income. In some countries such as Palau, GDP is over US$3,000 while the majority of countries have per capita incomes over US$1,000. Other countries such as Kiribati, for example, have amongst the lowest GDP per capita with approximately US$461. The islands enjoy reasonable levels of basic subsistence income while an increasing number have access to cash incomes of varying levels. It is only in recent times that marked inequities in cash incomes, have become more obvious, particularly in urban areas. In almost all countries, life expectancy for the population is over 60 years. Significant gains in social indicators such as schooling and health, especially infant mortality and life expectancy rates, have been made over the last decade.

Despite substantial gains in human development in the 1990s, the cultural and social diversity, island fragmentation and population size, especially in the larger relatively less populated islands of Vanuatu, Kiribati and Solomon Islands have placed fundamental barriers in the path of human development. Fortunately, a favourable climate and an accessible fisheries resource, combined with agriculture where possible, have permitted the continuation of traditional lifestyles for the majority of Pacific islanders. Against such background is the reality that over the last decade rates of economic growth have been low and stagnant, while population growth has continued to climb. The countries of Fiji, Solomon Islands, Vanuatu and Kiribati all experienced negative per capita income growth in the 1980s and into the 1990s, despite high levels of foreign resource inflows such as aid.

Some of the key human development indicators for the Pacific are shown in Table A.

Social and Cultural Diversity

As emphasised by UNDP (1994) and UNICEF (1995), the Pacific region and the scattered islands within it are of extreme social and cultural diversity whose tradition and culture cannot be taken for granted. A major feature of this diversity is the large proportion of each country population, usually in excess of 50% involved in some form of subsistence production for survival. While subsistence agriculture and 'subsistence affluence' have been and integral part of the lives of many Pacific islanders, this trend is now changing due to pressures from factors such as population growth, rural-urban migration, cash incomes and the changing expectations and aspirations of island populations. This pressure on subsistence is significant, particularly because of the wider traditional socio-cultural system of the societies where the concept of "vanua" or land is paramount.

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TABLE A

Selective Pacific Human Development Indicators

Country	Life Expectancy at Birth	Adult Literacy % (15 years +)	Mean years of Schooling	GDP per Capita (US$)
Fiji	63.1	87	6.8	1991
FSM	64.1	81	7.6	1474
Kiribati	60.2	93	6.1	461
Marshall Islands	61.1	91	8.5	1576
Nauru	55.5	90	7.3	-
Palau	67.0	98	2.1	999
Solomon Islands	60.7	23	2.8	529
Tonga	69.0	99	7.1	1396
Tuvalu	67.2	99	2.63	1068
Vanuatu	62.8	64	4.0	1020

Source: Adapted from UNDP, 1994

It is estimated that over 80% of lands in the Pacific region including urban lands are under some form of indigenous control involving rights held by members on a kinship-based arrangement. This feature has provided a strong material and historical basis for perpetuating traditional culture in the Pacific, thus resulting in many countries in development of communities with a strong linkages with the past, shared memories and a feeling of a common destiny across large sections of the population (Hooper, 1993). These unique and culturally rich Pacific societies which have traditionally provided a safety net for social cohesion and resolving family and kinship issues, are coming under increasing strain as expectations are modified by development and many islanders grapple with the transition from subsistence based societies to cash, growth oriented economies.

Urbanisation and Human Settlements Change

The scattered islands and atolls of the Pacific are diverse in their culture, geography, resources and socio-economic settings. While there are extreme variations between such country characteristics, one key common trend is the high rate of urbanisation now being experienced in all major human settlements. Urbanisation is rapidly increasing in all island countries of the Pacific with approximately 35% of the population now living in urban areas. Such human settlements are concentrated on Pacific islands ranging from tiny atolls of less than one square kilometre to the large mountainous islands of the Solomon Islands. The rapidity of recent urban growth in these island countries has led to increasing concern over the impacts of the urbanisation process, especially the realisation of the permanence of the resulting urban areas.

The concern over the severity of the emerging symptoms of urbanisation stems from a number of factors including social concerns, urban unemployment, increasing slums, rising crime and the breakdown and lack of access to basic urban services. Such permanence and rapidity of growth has led to the Pacific island countries containing some of the fastest growing urban areas in the world, but such countries hardly rate a mention in global reviews

of urbanisation. The reason for the lack of international attention to the urbanisation and human settlement problems in the Pacific have been due to a number of factors, namely:

- **the relatively recent trends in Pacific urbanisation;**

- **the small population base in cities and towns which is low by global comparisons;**

- **the minimal level of documentation which until recently was not widely distributed; and**

- **the relative lack of poverty and related urban problems in comparison to other less developed countries.**

In the Pacific, Melanesian cities such as Suva are amongst the largest human settlements. Increasing urban populations are pushing essential services such as clean water, adequate sanitation, waste disposal and transport to their capacities and beyond, with often the poorest residents suffering the earliest impacts. In many Polynesian cities, despite relatively low population growth rates, the pressure on urban services is immense, especially for key urban services such as water supply, sanitation and waste disposal. In Micronesia, the atoll countries such as the Marshall Islands, Tuvalu and Kiribati, which have high urban population growth rates in their capital centres also have some of the severest urban problems in the Pacific especially in terms of land shortage, declining housing conditions and overcrowding.

The atoll countries display some of the more dramatic results of overcrowding on limited and fragile island systems, but the larger island countries of Fiji, Tonga, Vanuatu and the Solomon Islands are also displaying the characteristics of expanding rural-urban migration and increasing inequalities of income and power. Most importantly, all reflect a declining ability of local governments to effectively manage the burgeoning urban settlements. Such urban problems have been acknowledged by many as symptoms of the concentration of government employment in the capital centres, and an absence of adequate income-earning opportunities on outer islands.

Urban Populations

According to estimates by the South Pacific Commission (1995), the population of islands comprising the Pacific region had a population of approximately just less than seven million people. With the exception of Polynesia, the natural growth rates and levels of fertility in most Pacific island countries are still considered to be at high levels and it is likely that island populations will continue to rise over the next decade or two. As at mid 1995, the highest natural population growth rates were in the Marshall Islands with 4.2%, American Samoa 3.7% and the Solomon Islands with 3.4% meaning the populations will double in 20 years or less. Significantly, in excess of 40% of the population is under 15 years of age (UNICEF, 1995). Yet, the major emerging trend in many parts of the Pacific is that urban areas are now growing at a faster growth rate than the overall country populations themselves especially in Melanesia and Micronesia (see Table B). While the populations of the Pacific islands are generally small, the rate at which some urban areas are growing accompanied by rising population densities in some areas, presents one of the major urban challenges of the decade. In countries such as the Marshall Islands and the Solomon Islands, annual growth rates are in excess of 3% while population densities in some urban areas rival Hong Kong

and similar cities. For example, Ebeye on the atoll of Kwajalein in the Marshall Islands has a density of over 8,000 persons on 0.3 square kilometres while the Betio islet on South Tarawa has a density of approximately 5,400 persons per square kilometre. The significance of these urban population trends cannot be disregarded given that there were virtually no major settlements in the Pacific region prior to this century.

Rural Urban Migration

Rural-urban migration in the Pacific has its origins in the inequalities and differences between urban and rural life. While the effects of increasing urbanisation on rural-urban migration are often viewed as social, their causes are essentially of economic origin. Pacific islanders are a mobile population having moved to urban centres within their own countries and in a number of cases such as Tonga and FSM, undertaken migration to cities overseas. Pacific urban areas such as Nuku'alofa in Tonga, Kolonia in FSM, Suva in Fiji and Majuro in the Marshall Islands are now a permanent 'home' to a growing number of second and third generation islanders as well as a mobile migrant population.

The development process shaping the Pacific involves social mobility on a scale unprecedented in traditional societies. In urban South Tarawa, Kiribati, for example, only 42% of the population in 1990 stated they had been born on that island while just over 21,000 persons or 84.2% of the population in South Tarawa stated their home island was elsewhere in Kiribati. Thus, in 1990 for every ten people on South Tarawa, six could be termed rural-urban migrants and four are *kain* South Tarawa (local born) with some 80% plus of the population, including those that were born there, not considering South Tarawa as their ultimate home island.

As in many other Pacific island centres, there is a significant proportion of the population which migrate at some point in their lives to the main urban centre and importantly, a major proportion of the population which return at some stage to their home island or islands. This circular migration and the implications of the continual interchange of traditional and modern ways between island and urban settings, further complicates the issue of planning and managing for sustainable human settlements. The notion of home island is significant in the Pacific as it applies to the island on which a person has stayed for a long time and/or ultimately hopes to settle on, such as the father's home island.

TABLE B

Pacific Urban Population Indicators

Country	Main Urban Centre	Total Urban Pop %	Population Growth p.a. (%)	Urban Population Growth p.a. (%)
Fiji	Suva	43.4	2.0	2.6
Fed. States Micronesia	Kolonia	26	2.6	-
Kiribati	South Tarawa	35.5	2.3	3.1
Marshall Islands	Majuro	64.5	4.2	8.2
Nauru	Nauru	100	2.9	2.9
Palau	Koror	68	2.1	2.7
Solomon Islands	Honiara	13.0	3.4	6.2
Tonga	Nuku'alofa	30	0.5	2.5
Tuvalu	Funafuti	43	1.7	4.8
Vanuatu	Port Vila	18.0	2.8	7.3

Source: Adapted from South Pacific Commission, 1995: Bryant-Tokalau, 1994

The movement of the population to urban areas has been fuelled by:

- **education and lifestyles;**

- **increasing government bureaucracy;**

- **service sector employment;**

- **industrialisation; and**

- **recent independence.**

All the urban indicators suggest that migration to most urban areas has been so rapid that governments have just been unable to keep pace with the provision of adequate urban services and facilities.

Symptoms of Urbanisation in Pacific Human Settlements

The growth of a more permanent and larger urban population in the cities and towns of the Pacific has resulted in pressures on traditional family structures, values and lifestyles, increased demand for urban services and a greater necessity for adequate urban planning and management. Population growth has been a key factor in placing considerable strain on both the physical and traditional social value systems of a society where the stability of traditional family values and structures have been a prominent characteristic. Traditional safety nets developed by island societies over hundreds of years are under stress. Serious environmental and health implications are arising as the infrastructure underpinning Pacific towns and cities, often established in the colonial pre-independence era, is being increasingly run-down and unable to handle rapid urban population growth. Provision of adequate urban water supplies

and acceptable levels of sanitation are significant issues as high population densities increase the threat of water related diseases in a region where a growing number of urban dwellers, especially those in informal housing, are not connected to a sewerage system. Urban housing conditions in the fringe and squatter settlements of some Pacific island countries can be described as being generally inadequate and lacking water supply, sanitation and garbage collection. Overall, the cumulative effect of the urbanisation process has been a sharp fall in the quality of life in nearly all centres in the Pacific region for an increasing number of people.

It is estimated in Fiji that there are some thirty to fifty squatter areas located in and around the capital of Suva with many occupying marginal lands such as stream banks, mangroves, flood prone areas and lands adjacent to rubbish and waste disposal sites (World Bank, 1995). As the number of households located in urban areas has increased, urbanisation has led to a rise in household size, overcrowding, as well as other stress- related issues. Among urban households which rely on the cash economy, the trend is for family-based authoritative systems to break down with resultant problems such as an increase in law and order issues, marital problems and pregnancy among unmarried teenage girls. Where urban household size is large, the greatest differences between the urban and rural household size occur in countries where rural-urban migration is common and/or where new household formation is constrained by land shortages (Booth, 1993). The latter factor is most apparent in the Micronesian countries of Marshall Islands, Kiribati and Tuvalu where the urban population densities are comparatively high when compared to other Pacific island countries.

The rapid growth of urbanisation in the Pacific has played a major role in the deterioration of traditional food systems which have led to increases in nutritionally linked diseases or non communicable diseases (NCDs). Prior to the 1950s, NCDs were generally unseen in the region as traditional Pacific islands diets were acknowledged as being conducive to good health. Pacific islanders especially in urban areas are increasingly dependent on diets based on imported rice and flour and supplementary foods high in sugar, salt and fat, and low in fibre and vitamins such as vitamin A. A lack of land means that for many they are no longer able to cultivate traditional food systems essential to good health, while in other areas traditional resources such as local fishing have been overwhelmed by commercial fishing operations. As a result of a range of factors including change in diet, sedentary urban lifestyle and a possible genetic disposition to certain diseases, common NCDs in the Pacific include diabetes mellitus, cardiovascular diseases, gout, alcohol related disease, tooth and gum disease and specific cancers. Significantly, the prevalence of some NCDs in the Pacific, which are high by global standards, is higher in urban areas than rural areas.

The Need for Urban Management and Planning

In view of the anticipated urban changes for the Pacific islands, it has become increasingly necessary to consider urban management and planning to mitigate the effects of change on human settlements. While many would agree on the necessity for planning for the islands, it is a complex matter to implement the type of planning required. Where the political will is present often the capacity or technical expertise required is lacking. To plan and implement strategies for dealing with significant urban issues such as water supply, sewerage and waste disposal, as well as the manifestation of poverty and vulnerability, requires governments to place urban planning and management higher on the political agenda. With other priorities competing for their share of resources in an era of constrained budgets, urban management has to date been viewed as relatively unimportant. There appears to be little consensus in the

Pacific on how to proceed and what is required to achieve 'planned' urbanisation and management of human settlements. Some Pacific island countries like Fiji and Tonga have made varied attempts at reforming urban planning and governance and change has been incremental. Human settlements management requires a number of characteristics to be present before it can operate successfully, including:

- **vision of a long term process requiring policy to be sustained over time;**

- **establishment of a political process;**

- **community participation and process to ensure policy is debated and formulated; and**

- **implementation at a number of levels such as the national, regional and local levels.**

UNCHS (1990) has recommended that any forward planning for human settlements to be successful should be relevant, realistic, participatory, responsive, decentralised and most importantly, accountable. Yet, while some of the above characteristics are prevalent throughout most island countries of the Pacific, the attention given to the co-ordinated management of problems in human settlement areas in the Pacific is not yet of highest priority.

2. CHAPTER TWO

EFFECTIVENESS OF EXISTING POLICIES AND STRATEGIES - A PICTURE OF CONTRASTS

Pacific Human Settlement Issues - Varied Management Responses

Pacific human settlements especially the growing urban areas, are now facing a number of challenges never experienced before. While our settlements are concentrations of variable economic growth and opportunities, communications, knowledge, creativity, social networking and quality living environments, they are also centres of resource depletion and environmental decline. They are also physical expressions of key cross-sectoral issues such as emerging poverty and vulnerability which reflects the inequitable benefits of economic growth to a growing urban population.

The changes facing Pacific settlements are a reflection of the social, environmental and economic stress of urban growth and change. Such change also invariably means a change in the islands social and cultural diversity which subsequently places pressure on traditional approaches to resolving development conflicts. A number of key issues are outlined which cut across the spectrum of human settlement variations in the Pacific especially the growing urban centres. Policy and strategy responses have varied, and while most countries would agree on the need for a structured management response, such responses are lagging for a variety of reasons. These include human development issues, institutional and legislative bases, local and central government conflict, and in some cases, ignorance of the severity of the issue.

Urban Infrastructure and Financing Urban Development

The urbanisation process requires large amounts of capital investment in infrastructure such as water, sanitation, land supply and roads, as well as ancillary infrastructure supporting industry and commercial facilities such as power. The clear trend throughout all urban centres in the Pacific is that the increase in urban population is by far outstripping the capacity of existing infrastructure services, especially water and sewerage. As a result, safe water and sanitation are unevenly distributed in all Pacific centres. It is the quality, coverage and reliability of these urban services that affects the quality of life of the population and ultimately, the productivity and efficiency of the urban economies.

The infrastructure situation in Fiji is somewhat typical of the larger urban centres in the Pacific. While its achievements in providing services have been considerable, the growth of the urban population is outpacing existing water supply and environmental sanitation systems especially in the peri-urban growth areas. Of most significance is the Lami-Suva-Nausori corridor which has seen a population growth of 107% over the last decade and is characterised by a proliferation of squatter settlements and a high number of unemployed (World Bank, 1995). Water coverage to the urban population is up to 95% on a 24 hour basis and up to a maximum of 92% for the rapidly growing peri-urban population. It is estimated that 10% of the urban population which lives in squatter and informal settlements cannot get a water connection without the consent of the landowner. Overall, 40% of the urban population lacks proper sanitation facilities with ground conditions in Suva generally unfavourable for the absorption of septic effluent. In metropolitan Suva, only 25% of the population has a sewer connection with the two existing sewage treatment plants at capacity.

Thus many areas of the population remain unconnected to basic sewerage facilities. These deficiencies primarily affect the urban poor, their health and environment.

The condition of infrastructure in other large urban centers is not dissimilar. In Majuro, Marshall Islands, the water supply catchment is primarily the airport runway which is collected, treated and pumped over some 30 kilometres of island. Leakages and illegal connections, however, have caused major reductions in water pressure (UNCHS, 1994). In Honiara, Solomon Islands, the government water supply system provides access to over 90% of the urban population. This coverage is rapidly diminishing as peri-urban settlements expand and difficulties are experienced in maintaining a system which mechanically keeps breaking down and runs low in dry seasons. Unaccounted water is in excess of 50% and users have reported dirt particles as well as tadpoles in their water (World Bank, 1995). In terms of sewage, only 30% of residents are connected to the reticulated sewerage system with the rest relying on septic tanks and pit latrines. In Honiara, as with South Tarawa, Kiribati, sewerage is not treated but rather disposed via a number of ocean outfalls. Foreshore contamination, especially of fish resources and subsequent health risks from swimming and eventual leaching back into the freshwater lens, is high. Wastewater and flood controls are minimal with culverts and drains silted and blocked. Annual treatment costs for malaria, infectious and parasitic disease resulting from inadequate waste water management in Honiara are estimated at a minimum US$450,000.

In the more traditional countries such as Kiribati and Tuvalu, for example, infrastructure in the urban centres is deteriorating in both quality and quantity. The proportion of the urban population using reticulated water is less than those sourcing roofs, bores and well, rivers and creeks. Likewise, household sanitation facilities vary from part or fully installed reticulated sewerage systems, to water sealed latrines, septic and other forms such as beach defecation. In South Tarawa, Kiribati, reticulated water is pumped from underground water lenses at one end of the island and is only available 1-2 hours maximum per morning, lunch and evening periods and sometimes not at all as breakdowns are common. As a result, there is a heavy reliance on water sourced from traditional wells and a variety of water catchment devices such as tanks and drums. The 1990 Census shows 49% of households as using well water as their main source of water supply while in some parts of the urban area, villages had over 90% of households using wells as their prime water source. Surface pollution from septic and pit latrines, household and animal domestic waste into the underlying lens is widespread.

The challenges facing the provision of acceptable levels of environmental sanitation in South Tarawa are also monumental in comparison to other Pacific urban centres. The reticulated sewerage system in South Tarawa, supported by foreign aid funding after a cholera outbreak in 1977, potentially serves the most densely crowded areas of Betio, Bairiki and Bikenibeu which represents only about 30% of the area of South Tarawa but nearly 65% of the population. The remaining areas of South Tarawa, which has a current estimated population in excess of 10,000 persons, is unsewered. Of prime concern is that 60% of the urban population (approximately 14,000 plus persons) still uses the ocean or lagoon beach daily as the traditional location of defecation, in addition to other options such as septic, pit latrines or the reticulated system (GOK, 1990 Population Census). As with the water system, the reticulated sewerage system is under increasing strain and already operating above capacity with approximately 70% of cisterns broken in the communal toilets in the Betio and Bairiki village housing areas (Jones, 1995b).

Financing urban development in the Pacific needs to be viewed from three perspectives:

- the additional investment needed to expand infrastructures and services generated by the new urban growth;

- the additional investment needed to cover the needs of the existing and growing population; and

- the additional investment needed to maintain, replace and repair existing infrastructure facilities in working order.

In many Pacific urban centres, deferred maintenance threatens the very survival of the systems. For example, the sewerage system on South Tarawa, Kiribati, which only covers about 30% of the urban population, is increasingly run-down with toilets blocked with sand, coral and coconut husks, cubicles and cisterns vandalised and repairs to the main trunk line suffering from a lack of equipment and basic maintenance tools (Jones, 1995b). In Honiara, Solomon Islands, breakdowns and mains backflowing are commonplace. In Suva, Fiji, maintenance for water and sewerage is estimated to be seven years behind schedule (World Bank, 1995).

The reality for Pacific urban centres is that large increases in investment in infrastructure are required even if standards of servicing are lowered or modified. Central governments have generally maintained responsibility for infrastructure provision and financing, often in conjunction with aid donors and organisations such as WHO and UNDP and assistance from regional banks such as the Asian Development Bank (ADB). There is no clear way forward in the provision of financing urban infrastructure in the Pacific, especially in the more traditional Pacific countries where the need itself is often not recognised as a priority by government. Often in these countries, past water and sewerage infrastructure projects have not been run efficiently, with the utilities having been provided by central government rather than the traditional domain of local government, thus creating conflicts of community ownership and responsibility.

If high capital infrastructure cannot wholly be provided by central government, which, given the enormity of the task, is unrealistic, then options are for part or full user pay principles, external financing, and local government borrowing and taxes. The high capital front-end costs of reticulated systems clearly suggests a renewed emphasis should be on cost recovery and improved operational efficiency of the key services of water and sewerage, especially in the context of wider public sector management reform. Since user pay may be a difficult concept to accept, particularly where traditional methods of waste disposal are common, then alternative, community managed projects could be tried.

The World Bank report on *'Managing Urban Environmental Sanitation Services in Selected Pacific Island Countries'* (1995) makes the following recommendations in terms of policy for financing infrastructure:

- make better use be made of existing infrastructure investments;

- utilise the strong tradition of community decision-making processes to discuss and clarify finance and management options;

- **turn constraints, such as domestic waste disposal issues, into managed opportunities, such as landfill for urban development; and**

- **undertake investment in infrastructure only when adequate arrangements are in place to ensure longer term maintenance and continuity of management.**

Notwithstanding the above, the broader issues in urban infrastructure provision still also need to be addressed - the basic need for ongoing community health awareness and education, appropriate institutional arrangements for infrastructure management, and information dissemination on the use of on-site technologies such as ventilated improved pit latrines which have had some success in other parts of the Pacific such as Vanuatu (World Bank, 1995). Yet, underlying the status of infrastructure in all urban centres in the Pacific is the reoccurring theme that those most affected by the lack of and declining infrastructure support systems are the urban poor.

Land and Customary Tenure

The availability and orderly supply of land for urban development is an increasing issue of concern in the development process in the Pacific. Access to and the lack of a reasonable supply of land not only pushes up land prices, but contributes to excessive slum and squatter settlements and associated poor environmental conditions. In all Pacific countries, either all or a large percentage of land is customary owned ranging from nearly 100% in the Marshall Islands to about 40% in Kiribati (See Table C). These lands are all diverse in their tenures and cultural past. Problems encountered by government and private developers include protracted negotiations for land leasing and acquisition, unresolved land disputes and demand for ad hoc increases in rent by indigenous landowners (World Bank, 1993).

Expansion into and use of customary lands has presented problems of land acquisition especially for water supply and waste disposal facilities. For example, in South Tarawa, Kiribati, lands previously set aside for urban water reserves have been returned to their landowners following pressure put on government by landowners to return the urban lands for family use. Thus, precious and limited water reserves set aside for public utility purposes have now been relinquished to traditional landowners for housing settlement. In the case of the atoll countries of Tuvalu, Kiribati and the Marshall Islands where lands for urban expansion are physically limited, such practices cannot be sustained in the light of major urban population increases (UNCHS, 1994).

TABLE C

Land Ownership in Selected Pacific Island Countries

Country	Customary Land (%)	Government Land (%)	Freehold %
Fiji	83	9	8
Kiribati	40 (a)	60 (a)	-
Marshall Islands	100	-	-
FSM	-	60 (b)	40 (b)
Solomon Islands	97	3	-
Tonga	-	100 (c)	-
Vanuatu	98 (d)	2 (d)	-

Footnotes:

(a) All land is government owned in Kiritimati Island in the Line Group, while only some is government owned in the Phoenix Group. All urban lands in South Tarawa are traditional lands with all the main urban villages leased by government.

(b) Table refers only to Pohnpei State. Freehold includes land owned by private as well as some customary land.

(c) All land in Tonga is owned by the Crown with user rights vested to families.

(d) Approximately half the urban lands are owned by Government with rural lands owned by the ni-Vanuatu.

Source: Adapted from World Bank, 1993

In all Pacific countries, many urban land 'titles' do not exist and where the owner/s are registered in an island, city or village register, they are often registered in the family name and do not show the extent of brothers and sisters and other relatives who may have an interest in the land. Where ownership can be clarified, disputes can then arise over boundaries as basic land title information showing dimensions and accurate location invariably does not exist for most Pacific island countries. Yet, it has been the rate of growth in urban areas which has been the stimulus in the 1990s to provide training and education in surveying and information systems so as to provide more basic title information and updated land registers for urban areas. Land disputes, if not resolved informally between the parties, can end up in the Lands Court. Major delays due to staff shortages, appeals to the High Courts and the sheer number of cases in urban areas are all commonplace as competing demands for land increase (UNCHS, 1994).

While some aspects of traditional land custom need to be reconciled with economic development, it is the pace of urban development which has created a backlog of cases, claims and disputes rather than fundamental problems with the principles of traditional lands. Improving the accessibility and utilisation of urban and future urban lands will go a long way to enhancing the quality of the urban environment, especially for low income communities where security of tenure is the most important priority. Land leasing occurs in most Pacific

urban centres in one form or another, whether by government or private, and where broad brush leasing has occurred by government, there are good grounds for its rationalisation where competing urban demands are high and large public rents are paid.

In Fiji, for example, the Native Lands Trust Board (NLTB) is the key agency through which Native Land can be leased to both Fijians and non-Fijians alike. In this regard, the NLTB acts as an agent for traditional landowners in leasing lands for periods up to 30 years as well as acting as broker in the settlement of land related disputes. The tenure systems in human settlement areas need to relate to the broad use of the land concerned, given traditional tenures were based on vastly different economic, social and political contexts aimed at self-sufficient communities (Crocombe, 1995).

In the light of the nature of rapid Pacific urban development demands being generated, land tenure arrangements at the country level need to adapt positively to the changing circumstances. The symptoms of this very evolutionary process are being reflected in government land and housing ministries in all Pacific countries at the present time. Land, as a major infrastructure item, has the potential to be a key urban production function for Pacific island countries with financial as well as social returns to government, should they wish to take the initiative.

Poverty Alleviation and Employment Generation

One of the most noticeable changes to Pacific urban settlements over the last decade has been the rise in urban poverty and vulnerability. Poverty, defined as including inadequate and declining levels of the basic needs of food, shelter, clothing, sanitation, health and education that inflict human stress, has been most prominent in squatter and fringe settlements and especially amongst women and children. Poverty in its wider context does exist in the Pacific although it is difficult to measure in the absence of reliable data and the reality that most Pacific societies still depend partially or fully on traditional subsistence lifestyles. Income as well as indicators on infant mortality, access to sanitation, shelter, safe water, access to land and traditional fishing areas, levels of population growth and incidence of preventable diseases, life expectancy and education, all need to be taken into account when considering levels of poverty in the Pacific (Bryant, 1993).

Despite the visible indications of urban poverty over the last decade, the use of the term "poverty" in most Pacific countries is not well accepted primarily because in the past poverty and need were dealt with in traditional ways. However, the size of change taking place in both urban and rural human settlements such as the economic transition and structural adjustment, new lifestyles, western aspirations and importantly, changes to the family, have exposed the issue of poverty via the development process. Traditionally the extended family, village networks and outer island allegiances provided the safety net whereby issues of food, shelter and land could be accommodated but these traditional support systems are now changing as urban settlements expand. In the past, traditional obligations and reciprocal arrangements meant contributions of food, money and land for weddings, funerals, births and other customary traditions, but these social and cultural ways are slowly breaking down as urban financial and household pressures increase.

Despite the lack of data on poverty across the Pacific, the relationship between poverty, health, population and environment in overcrowded urban areas has now been well documented. In the Marshall Islands, for example, child mortality rates of 92 per 1,000 live

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births is the highest in the Pacific with one-third of deaths being to children under five years of age. These deaths are largely due to respiratory infections, gastro-intestinal illnesses and malnutrition (Bryant-Tokalau, 1995). The most prevalent diseases in the Pacific are those related to living conditions and are most commonly found in overcrowded urban areas - respiratory, gastro-intestinal and mosquito carried infections especially malaria and dengue fever, as well as those relating to poor nutrition. The provision of clean water and sanitation is essential to improved public health and well-being, yet in most urban areas as well as other human settlements, is still lacking in reasonable standards. In Kiribati and Vanuatu, for example, only 65% and 87% of their respective populations have access to safe water. Such figures are further reduced in an urban context and generally the ones most affected are those living in marginal urban locations with other substandard living conditions, such as poor housing and overcrowding (Bryant-Tokalau, 1995).

The UNICEF 'The State of the Pacific Children' report (1995) recognises the problem of emerging poverty in the Pacific especially in urban areas and its linkages with inequitable access to services and income, high population growth rates, environmental degradation and poor urban planning, and its impact, especially on women and children. All urban centres in the Pacific face similar problems relating to indicators of poverty and declining living standards.

Apart from the environmental and social manifestations of poverty and vulnerability, access to cash income is significant. In the mid-1980s for example, Fiji had approximately 10% of the population receiving 50% of the income and by the mid-1990s this inequality gap was widening. Low income earners now earn less in real terms than they did in the late 1980s whilst the urban population is now more vulnerable to unemployment, illness and access to education. In 1982, the number of urban households below the poverty line of $45 per week for a family of six was 15%. By 1990-91, 32% of the population in urban areas was considered compared with 18% in the rural areas, and around 12% of the population had insufficient income to buy the basic necessities of food and clothes. In Honiara, Solomon Islands, less than 1% of households earn 50% of the total income with 45% of households earning less than US$190 per month (SI$750). Low income groups tend to have large families (6 to 8 persons) compared with 5 persons with monthly incomes in excess of US$1,250 (SI$5,000). The low income group spends 55% of its household expenditure on food (World Bank, 1995).

The scenario for Pacific urban areas is that poverty, as most visibly reflected in slums and squatter settlements, is likely to continue at its present levels or worse for at least the short term, even if action is taken immediately. Underpinning the prevalence of urban poverty are the fundamental issues of slow economic growth, high urban population growth rates and minimal employment opportunities in the urban economy. Many entrants into the labour market such as urban youth, are a product of an expanded education system that has geared them for life employment outside the traditional subsistence sector. Yet, over the last two decades, the growth in workforce numbers has outstripped job creation and formal wage employment opportunities by substantial amounts. For example, the growth of economically active population in the Solomon Islands outstripped the growth of those in wage employment by a ratio of nearly 8:1 while in Fiji had a ratio of 6:1.

In the context of alleviating poverty, prospects in the short term do not appear favourable with higher social dislocation costs. With civil service cutbacks featuring on many reform agendas across most of the Pacific region, formal wage employment will be further reduced.

Thus, without substantial change to economic growth prospects, the growing workforce in the urban areas will have to survive in the informal and subsistence sector.

TABLE D

Basic Pacific Development Indicators; Health, Education and Water

Country	% Population with access to health services	% Population with access to safe water	Health expenditure as % of GDP	Education expenditure as % of GDP
Fiji	98	92	1.7	5.1
FSM	75-80	30	7.6	15.3
Kiribati	85	65	5.9	7.0
Marshall Islands	95	50	10.0	12.8
Nauru	100	90	-	-
Palau	75	88	9.3	9.1
Solomon Islands	80	61	3.7	6.0
Tonga	100	100	3.8	7.2
Tuvalu	100	100	5.1	15.7
Vanuatu	-	87	2.4	4.6

Source: UNDP, 1994

In summary, urban poverty in the Pacific has a number of common underlying themes:

- As the shift in national populations is to urban areas, poverty is becoming an increasingly urban issue.

- Poverty persists across all Pacific countries and urban areas and those with relatively high levels of GDP such as Palau, Marshall Islands and FSM, are not excluded.

- The prime causes of poverty must be analysed in the context of each country's political, economic and social situation as there are a range of sources and causes in producing inequalities. For example, poverty and overcrowding in South Tarawa, Kiribati, has a key causal relationship to issues of landlessness and a finite island land supply.

- Rapid increases in urban unemployment and under-utilisation in the informal and subsistence sectors is directly associated with rising levels of urban poverty and declining quality of life in all Pacific urban centres.

The relatively low levels of public expenditure spent on sectors critical to reducing poverty, such as health and education, are an indication of the varying importance given to these key human development areas (see Table D). As a result, co-ordinated measures to alleviate poverty in public policy are seriously lacking, despite increasing numbers of poor in all Pacific urban centres.

Important areas to focus on in the alleviation and eradication of poverty must not only include income generation projects, but attention must be given to the maintenance of traditional structures, a healthy physical environment with provision of decent housing, clean water, adequate sanitation, regular and appropriate garbage disposal, as well as free and universal education. Long-term planning with an emphasis on sustainable livelihoods is essential in the prevention of poverty in the Pacific.

Shelter and Affordable Housing

There are enormous variations in forms of housing throughout Pacific urban centres. Much of the housing stock in the larger cities of Suva (Fiji), Port Vila (Vanuatu), Majuro (Marshall Islands) and Honiara (Solomon Islands), for example, is dominated by permanent housing. Informal housing constructed primarily from timber with tin or thatched roofing, in conjunction with an increasing numbers of non traditional/permanent housing tends to dominate the housing stock in many villages and the peri-urban squatter areas on the edge of the larger cities in the Pacific. As urban population rises and the supply of land becomes scarce and costs rise, the mix of housing stock on individual plots varies from traditional to non traditional housing with variations in-between including the use of containers, packing cases, corrugated iron and plastic sheeting. In other centres such as Funafuti, Tuvalu, and South Tarawa, Kiribati, traditional housing interspersed with traditional and permanent dwelling variations, dominates the urban fabric.

In the past, housing needs in the Pacific were catered by the family and the wider extended kinship group. Recent indicators suggest that as a result of rural urban migration, landlessness, family disputes and urban growth in general, these support mechanisms are becoming strained. The need for adequate shelter and affordable housing is reflected in the trend of a major rise in squatter housing and slum areas in all Pacific urban centres over the last 10 to 15 years. A 1996 UNDP funded survey of squatter housing in all urban areas of Fiji shows, for example, some 14,000 informal dwellings which translates to approximately 70,000 people living in various forms of urban squatter and informal housing (Walsh, 1996).

In Honiara, Solomon Islands, the number of residents in informal settlements grew by approximately 19% per year in the 1980s. By 1989, there were in excess of 30 such areas accommodating 15% of the Honiara population. By the mid 1990s, this had increased to approximately 23% despite the poor health conditions, sanitation and water supply situation proliferating in these areas (World Bank, 1995). In Betio, the most crowded islet on South Tarawa, Kiribati, approximately 25% of the 9,500 plus persons on the 1.5 square kilometre island are deemed to be squatters living in traditional housing (Jones, 1995b). The prevalence of squatting throughout all Pacific urban centres is one key indicator of a breakdown in the land-supply system for housing and access generally to developable land.

The growth of squatter housing and informal dwellings in Pacific urban centres has occurred primarily on 'marginal' lands such as causeways, foreshore areas and accretion areas adjoining rubbish dumping sites, alongside creeks, outside town boundaries and adjacent to recently developed housing areas. Squatting and the growth of informal dwellings in Pacific urban centres are more common on crown and government leased lands than native and traditional lands. Informal housing is less likely to be removed if on government or government leased land. Squatting is so extensive in many urban centres that government, with limited human resources, often finds it difficult to prioritise. The eviction process alone for a single household may take up to 6 months or more, and there is often a deep rooted

socio-cultural reluctance by government officers to instigate such a process for reasons associated with traditional taboos, witchcraft and fear of physical retribution (Jones, 1995b).

Some of the key problems and symptoms characterising housing in squatter and slum areas in the Pacific urban centres are shown in Table E.

TABLE E

Housing in the Informal Sector in the Pacific; Some Problems and Symptoms

Problem	Symptom
Affordability	Inadequate and poor dwelling structure leading to parasites, vermin, poor lighting and ventilation; little access to urban services and basic needs
Tenure/restricted access to land	Family /land house disputes, squatters
Social and cultural factors	May restrain equitable access to land and promote extended family and large households
Small land/ plot size	Overcrowding, land and housing disputes, increased demand and need for housing, social stress
Inadequate house size	Large households, promotes TB, influenza, infectious disease
Open wood fires	Inhalation in overcrowded settings exacerbates respiratory illness
Contaminated water	Promotes sickness - diarrhoea, typhoid, hepatitis, cholera, dysentery
Insufficient water	Poor domestic hygiene - scabies, lice, diarrhoea
Inadequate sanitation	Excreta pathogens contaminate food, water, waste and hands leading to faecal-oral disease and intestinal worms; land and beach defecation pollutes water lens
Ad hoc garbage disposal	Attracts disease, vermin and pollute water lens
No waste water control	Water logged soil transmits hookworms, breeds mosquitoes spreading disease, pollutes water lens

Source: Adapted from Jones, 1995b.

Where public housing programmes exist such as in Fiji, housing programmes and projects are on such a relatively small scale that they just cannot keep up with the overwhelming demand. In addition, national housing policy has invariably favoured middle to upper income groups and has not been able to cater for the basic needs of the poor (Connell and Lea, 1993). In Fiji, the Housing Authority, which comes under the auspices of the Ministry of Housing and Urban Development, is the public arm of the housing industry and constructs housing for low and middle income groups. Like Vanuatu, public houses are available for sale as well as rent. The Housing Authority has had mixed successes financially, as well as falling well short of meeting its primary target group, low income earners (UNCHS, 1992). In fact, low income public housing in Fiji is now dealt with by the Public Rental Board and a number of charitable organisations. The Housing Authority, due to its need for cost recovery, now deals largely with middle-income earners.

The Solomon Islands Housing Authority had a similar charter but was abolished in 1989. In South Tarawa, Kiribati, public housing is provided by the Kiribati Housing Corporation (KHC) but it provides a housing stock of some 1,200 houses and flats to civil servants only. Housing is subsidised and even considering the nominal contribution from rent, the amount falls well short of economic rent. The focus of housing provision is therefore providing public housing for low to higher income public servants - the notion of the need to provide 'public housing' in its wider context is something relatively new. In all housing contexts, demand far outstrips supply.

Pressure on urban housing and the need for shelter is reflected in urban household size differentials compared to household size in rural areas (see Table E). With the exception of the urban areas in Vanuatu and Fiji, household size in urban areas is either the same or larger than rural households in the remaining Pacific island countries. Countries with over seven persons per household in urban areas include FSM, Solomon Islands, Tuvalu, Kiribati and Marshall Islands. The greatest differentials in average household size between urban and rural areas occur in the three atoll countries of Tuvalu, Marshall Islands and Kiribati. This is not surprising given the main urban areas are characterised by limited land and rapid population growth rates. In South Tarawa, Kiribati, average household size is 7.7 persons per household and rising compared to the remaining average size for Kiribati which is 5.9 persons per household and falling. In South Tarawa, UNCHS (1994) indicated that some 2,500-3,000 additional dwelling houses will be required to accommodate the additional population within the next 15 years. This figure is alarming when considering that this represents some 80% increase on the existing number of South Tarawa households, namely 3,297, and land options are physically limited.

Average Urban and Rural Household Size in Pacific Island Countries

Country	Urban (Average) Household Size, 1990	Rural (Average) Household Size, 1990	Urban -Rural Differential in Average Household Size
Fiji	5.7	5.9	0.2
FSM	7.6	7.4	-0.2
Kiribati	7.7	5.9	-1.8
Marshall Islands	9.0	8.2	-0.8
Nauru	-	-	-
Palau	5.0	5.0	0.0
Solomon Islands	7.0	6.4	-0.6
Tonga	6.5	6.1	-0.4
Tuvalu	7.7	5.2	-2.5
Vanuatu	4.7	5.1	0.4

Source: Adapted from Booth, 1993

Affordability, accessibility and poverty appear to be the major underlying constraints in raising housing and shelter standards of the population in most settlements of the Pacific. Access to land, as a basis to housing provision, is restricted by a number of socio-cultural parameters and the speed of urban growth in most Pacific island countries. In some countries, resistance to the notion of 'public housing' provision on the basis of identifying emerging housing needs, including poverty indicators, is likely to be strong for a range of traditional social and cultural reasons, including the potential elevation of one group over another. A policy approach that facilitates the basic elements of housing needs - the provision of materials, land security and affordable and acceptable urban services such as water, sewage and electricity - is the one most likely to be acceptable.

In summary, the following key themes emerge on urban housing and affordable housing in the Pacific, namely:

- housing including informal housing, can make an important contribution to the urban economy in terms of direct and indirect employment especially the demand for unskilled labor;

- there is need for accessible funding sources and affordable self-start housing projects;

- the overcrowded conditions and environmental degradation in the squatter and informal housing areas reinforces the need for a number of co-ordinated management measures including a land release strategy;

- since the bulk of housing is provided by the private sector, the basis of any housing policy should be to encourage the private sector to deal with middle income and low

income groups and leave the public sector to deal solely with the lowest-income groups (UNCHS, 1992);

- the sheer size of the problem of the problems suggests that key housing and infrastructure standards for low income and squatter groups need to be revised - for example, lot sizes, setbacks, building and infrastructure standards. This will partly recognise that lower income groups cannot afford 'normal' standards and that much of the construction by such groups in informal settlements is incremental as funds and resources, such as manpower help from other family members, becomes available.

The above policy ideas are not new for the Pacific, but they do recognise the basic need for shelter and affordable housing, and the reality that informal housing and squatter settlements are now a permanent feature of the urban way of life in the Pacific.

Women's Needs and Community Participation

While there has been a greater number of women participating in the urban economy as well as monetised agriculture sector in the Pacific, the contribution and role made by women both in the home and workplace still remains relatively unrecognised and under-utilised. Women have a pivotal role in the development process. For example, they produce and collect food, do domestic housework, produce and raise children, manage the household and work in the informal or formal economy, yet their recognition in the Pacific is constrained for a number of reasons:

- there is gender bias in measuring and reporting economic and cash activities;

- women are limited in their development potential by lack of education and skills, or by being in positions inappropriate to their level of training (SPC, 1994); and

- conditioning by traditional social and cultural beliefs and practices. In most traditional Pacific societies, women are not decision-makers (UNICEF, 1995).

Observation and gender disaggregated statistics for Pacific urban areas show that:

- in the formal sector, women are largely confined to traditional, often unskilled, salary and wage employment roles such as teachers, shop assistants, secretaries and factory workers with very few in senior management including the public service. Women's hourly rates are generally lower than men's and many are non-unionised, hence they have little bargaining power.

- in the informal sector, women are involved in cash and non-cash traditional subsistence activities to support the household.

- while access to and participation in school education has increased dramatically for women, the proportion of women completing secondary school with skills and qualifications is lower than men. This situation for women is not only as a result of financial constraints but entrenched social and cultural practices.

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- domestic violence against women is greater in urban than rural areas, given the increasing social and economic stresses of urban life on marriages and de facto relationships.

- teenage pregnancies and single motherhood are higher in urban than rural areas, where traditional family structures and values have been modified.

Women's access to education is vital in a number of areas. Firstly, the education of women, for example those living in squatter areas is likely to result in improvements in health and family nutrition. Many of the sicknesses found in overcrowded areas result from communicable diseases involving infection and malnutrition. Secondly, there are clear links between poor education and high fertility rates. Increasing the quantity and quality of school education for women is a vital component of population policies in island countries where fertility is high. Thirdly, education generally provides greater windows of opportunities for women than they would previously have had, thus improving overall economic performance.

The empowerment of women and enhancement of their development potential has been primarily taken on by NGOs which, in the main, appear to have had considerable success throughout the Pacific. Non-government and community organisations, often church based, have been effective in mobilising community participation and delivering services to women in urban and rural households and communities. There are in excess of 1,000 Pacific NGOs registered with the South Pacific Commission and the actual numbers are likely to be considerably higher (UNICEF, 1995). Non government organisations' areas of broad based support include family welfare, nutrition and diet, water and sanitation, education, environment and income generation. Generally, NGOs take a holistic approach to meeting needs, especially those in which women have a vital role such as household and children's affairs. For example, in Suva, Fiji, a major NGO, the South Pacific Action Committee for Human Ecology and the Environment (SPACHEE) has been focusing on three pilot projects in low income urban communities to improve water, sanitation and basic human needs. Another NGO, the Foundation for the Fellowship of the Peoples of the South Pacific (FSP), is also making progress in urban communities through their child survival and vitamin A deficiency work in South Tarawa, Kiribati.

Community mobilisation, income generation, education and self-help are all key areas where NGOs, with a strong presence of women and their community networking skills, have made major inroads in urban centres in contrast to the traditional rural village setting. For example:

- In Nuku'alofa, Tonga, the *Langafonua* is in the process of becoming the women's NGOs umbrella group. The group has a membership of over 20 women's NGOs and produces regular radio programmes, a newsletter, operates a small credit scheme and a small handicraft shop (Haines, 1995).

- In South Tarawa, Kiribati, *Aia Maea Ainen Kiribati* (AMAK) is the national women's NGO and works with the women of urban South Tarawa as well as outer islands. AMAK has a total membership of over 5,000 persons. AMAK runs women's workshops on health and diet, running a small business, community skills training for teenage girls, markets local food, sewing and machine maintenance, as well as selling handicrafts produced by the women at their Bikenibeu centre (SPC, 1993).

- In Fiji, NGOs and local communities manage some 76% of all primary schools, urban and rural, 51% of all secondary schools and 59% of all vocational and technical colleges (UNDP, 1994).

Policies explicitly oriented to gender bias against women and the establishment of national policy and programme directions are relatively new in the Pacific. It has only been in the 1990s that Pacific governments have recognised the key role that women have played in the development process including the political arena. Governments acknowledge that the status of women must be increasingly incorporated into urban development plans, especially population and health programmes The success of the NGO and women's groups, often working with minimal funds and staffing levels in the Pacific, provides a clear indicator that the skills of community self-help groups and NGOs, in partnership with government, are a vital ingredient of any urban development and programming strategy for Pacific. Sustenance of family life and the pivotal role of women is an area in which Pacific island countries have placed great importance.

The Suva Declaration on Sustainable Human Development in the Pacific, signed by heads of states and governments at the 25th South Pacific Forum, August, 1994, recognised that for sustainable development to occur there must be gender equality and equal access, as well as participation in all development initiatives, especially education, training, employment and health care. With increasing urban inequalities, the empowerment of women to improve their access to economic and financial resources, their decision-making capabilities including important family decisions such as number of children, and importantly their ability to act on these decisions, is paramount (SPC, 1994). These issues are vitally important in the growing urban areas of the Pacific and all future urban policy should have regard to:

- **meeting women's and community needs;**

- **capitalising on women's skills and expertise; and**

- **utilising women's knowledge to arrive at workable solutions.**

Environmental Management and Sustainability

The urban areas in the Pacific are the location of some of the worst environmental degradation especially in the informal and squatter housing areas. Unless such areas are comprehensively managed in the short term, standards of living and quality of life will continue to decline. Many of the urban environmental problems emerging in the Pacific region are also common to cities in other parts of the developing world - for example, sanitation, water quality, pollution of land resources, land degradation, solid waste disposal and loss of biological diversity. Environmental management issues are more pressing and urgent in the Pacific urban centres because of the:

- **rapid and high urban population pressures often on small and low land masses;**

- **vulnerability of urban areas to sea level rise because of their coastal nature;**

- **economic and cultural dependence on the natural environment;**

- **prevalence of natural disasters; and**

- **vulnerability of freshwater lens on atolls to environmental impacts.**

In the Pacific, there are many indicators of a deteriorating urban environment. Unsatisfactory treatment and disposal of industrial wastes, household refuse and sewerage are damaging the environment. As population rises and consumption increases, the volume of waste generated in urban centres increases dramatically. Major pollution problems associated with human sewerage are of most concern. Faecal coliform levels in lagoon waters and shellfish in Suva (Fiji), Port Vila (Vanuatu) and Nuku'alofa (Tonga) have all indicated the potential for major disease in additional to 'normal' prevalent illnesses of diarrhoea, dysentery and hepatitis. Health problems connected to sewerage discharge include cholera in South Tarawa, Kiribati, and Chuuk, FSM, and viral hepatitis, Fiji. Studies have also shown concentrations of nitrates and phosphates in Suva (Fiji), Port Vila (Vanuatu), South Tarawa (Kiribati) and Tonga are likely to cause damage to coral reefs (World Bank, 1993). In South Tarawa, Kiribati, the lagoon is so polluted from high levels of beach defecation and other waste that there has been species depletion of fish (Jones, 1995b).

Industrial pollution is generally uncontrolled in most urban centres. As well, waste management practices, namely, collection, disposal and management, are at basic levels in all urban centres. In Suva, Fiji, municipal garbage dumps are located on or near coastal land reclamation and are not adequately sealed from flooding or seawater infiltration. In Honiara, Solomon Islands, residential waste which is supposed to be collected on a weekly basis often turns out to be monthly collection (World Bank, 1995). Like many other countries, there is often no separate collection and disposal methods for hospital waste including syringes. In South Tarawa, Kiribati, garbage is collected by Council tractors with trailers and subsequently dumped in selected foreshore areas. As there are no containment walls or organised tip management besides the occasional burning-off of organic material, the waste is readily moved daily by the seawater at high tide and deposited elsewhere on the lagoon or beach foreshore. Waste collection and disposal is not seen as major issue by the community, hence there is little government and community support to resolve these issue of environmental degradation (Jones, 1995b).

All of the above suggests that some of the more pressing urban environmental areas for action include:

- **urban 'metropolitan' land use plans which set parameters for reasonable levels of resource allocation and management, such as lands suitable or unsuitable for urban development, conservation and special public uses. In terms of sanitation and water supply, for example, uncontrolled and ad hoc land development has resulted in the development of many areas which are costly for utilities or are unable to be serviced with basic services;**

- **protection of freshwater resources, especially catchment areas outside the boundaries of urban areas;**

- **protection of precious and limited underground water resources in atoll countries;**

- **location and management of hazardous waste sites;**

- **enforcement measures for pollution especially water; and**

- combined urban management-planning/environmental legislation that integrates both *process* and *issues*.

There is a growing awareness among Pacific island countries that environmental management of the growing urban areas is one major key to successful long-term economic development. More importantly, environmental management is not only required to support productive and efficient economic growth generally but is required for improved health standards, more equitable development and often poverty alleviation in our urban centres. Pacific island governments and communities have made major gains in efforts to co-operate on environmental matters, including urban areas, and share similar problems. To address the above, most countries in the Pacific have now prepared National Environmental Strategies (NEMS) co-ordinated by the South Pacific Regional Environment Programme (SPREP). These plans are now being implemented by the Capacity 21 Project with governments, NGOs and local communities. Capacity 21 refers to the major principles of Agenda 21 which were endorsed at the United Nations Conference on Environment and Development (UNCED) held in 1992.

As a result of the NEMS and the Capacity 21 Project, governments to varying degrees have institutionalised environmental planning and management, including supporting legislation and regulations. Yet, most signs indicate that implementation and a commitment to the underlying principles remain generally weak and slow. Importantly, there is still a region wide tendency to view environment as the natural environment only, rather than a broader management perspective that specifically includes the 'urban environment'. As a result, environmental management of the growing urban areas has until recently tended to take a back seat role, such as reflected in the preparation of the NEMS reports, for example. This symptom is a reflection of the lack of importance given to the urban areas generally and integrated environmental management in particular. Other matters hindering urban environmental management and sustainability include the lack of environmental and urban management issues in the macro-economic planning process, poor inter-agency co-ordination, weak technical base and inadequate information exchange.

Governance and Urban Management

If a main cause of unsustainable urban development is poorly managed development and lack of skills in growth management, then paramount to the future of human settlements in the Pacific will be the success or otherwise of effective programmes and initiatives focusing on urban management and planning, especially those performed by government.

Urban and environmental planning, viewed as one component of the wider notion of urban management, seeks to emphasise the collection of information to assess the alternative solutions to problems and the assessment of the potential impacts of each of the likely solution. Environmental planning should not be divorced from urban planning but be part of a comprehensive approach which includes taking account of future uncertainty by a precautionary approach, which reflects the integrated nature of environmental processes and policies and importantly, takes a strategic view of decision-making in human settlements.

Contemporary management and planning styles for human settlements in the Pacific are a mix of institutions and processes whose heritage primarily comes from the era of colonial administrations, combined with recent administrations of the emerging states. These colonial

administrations include Britain, New Zealand, France, Germany and the United States. In Fiji, Kiribati and Tuvalu, for example, these countries have inherited British based systems of land tenure and land management combined with traditional principles, as well as British systems of laws and government institutions. The rapidity and newness of urbanisation and urban development over the last twenty to thirty years, combined with a search for national identities and a preoccupation with economic development, has seen planning and management of the growing 'new' urban areas take a back seat in the post colonial era until recent times. The attitude of many Pacific countries, especially the more traditional countries such as Tuvalu and Kiribati which have recently emerged from colonial government to independence in the 1970s, has been to primarily ignore and bypass the town and village planning arrangements inherited from the former colonial era as they apply to both newly emerged urban areas and rural towns and villages. This trend is not surprising in the more traditional human settlement areas of the Pacific because:

- **the emerging urban sector is by nature multi-sectoral and complex, cutting across a range of key players and organisations including traditional institutions and processes; and**

- **the majority of Pacific island developing countries are relatively newly created administrations having recently gained independence from colonial governments. As such, there exists only limited institutional capacity and infrastructure for development planning with minimal administrative experience and expertise throughout the administration.**

Traditionally, planning generally and human settlement and urban planning in particular in the Pacific have been constrained by a host of technical, institutional and structural parameters. Overburdened staff, lack of data, skill deficiencies as reflected in shortages of staff and crisis management styles, have all been identified as creating a planning function that is fragmented and unproductive. Planning is further inhibited by a culture of inertia combined with policy caution created by the prevailing social, cultural and political context. It is not uncommon to find in Pacific islands:

- **intense face to face personalism and family kinship issues that impinge on objective decision-making which inhibits the tackling of issues and reinforces the status quo;**

- **geographic remoteness which tends to reinforce a slow pace of administration and a lack of public sector innovation; and**

- **strong partisan politics and restricted employment opportunities which generate insecurity and caution on one hand and poor institutional memory on the other.**

While there are difficulties associated with generalising about the state of governance and urban management across the wider Pacific (for example, the provision of reticulated water and sewerage in Suva, Fiji, is far more advanced than most other cities in the Pacific) it is not surprising given the recent trends of urbanisation in the Pacific and the rapidity of transition from villages to towns to growing urban settlements, that the overall status of governance and urban management in the 1990s can best be described as weak, inadequate and ineffective. The existing condition of governance and urban management in the Pacific is characterised by a range of key issues including:

- poor multi-agency co-ordination and integration;

- under-resourced and weak local government;

- conflict between local and central government over roles and responsibilities;

- minimal human resources for policy and strategic planning matters;

- absence of medium to long term planning;

- emphasis on technical solutions such as physical plans (rather than the *underlying causes*);

- slow and relaxed pace of administration;

- absence of environmental impact assessment and procedures;

- separate economic and urban planning functions;

- poorly developed concepts of public interest, public good and public gain;

- emphasis on individual self reliance and strong landowner rights; and

- lack of effective institutional support at the regional level for tackling problems of integrating urbanisation, governance and urban management (Jones, 1995a).

In most parts of the Pacific, it emerges that urban and environmental planning are not traditional activities which have featured strongly in the management of human settlements by government. In the wider Pacific, urban planning and management attributes such as basic physical planning and outline structure plans to guide growth, are still largely absent in practice in both local and central government. One legacy of this situation can be seen in many towns and cities without basic urban services in the region. Where planning does exist, there is no single co-ordinating body and as a result the institutional framework complex and can be divided over a range of national, local and specialised players.

For example, in Fiji, the range of agencies involved in Suva, Fiji, includes the Department of Town and Country Planning of the Ministry of Housing, Urban development and the Environment; local planning boards; the Native Lands Trust Board; the National Housing Authority and individual landowners. A similar situation exists in South Tarawa, Kiribati, with an array of government institutions and statutory corporations involved including the Ministry of Home Affairs and Rural Development, Ministry of Finance and Economic Planning, Public Works Department, Kiribati Housing Corporation, Public Utilities Board, Ministry of Health and Family Planning, and the Ministry of Environment and Social Welfare Development. On the other hand, cities like Honiara, Solomon Islands, have their urban management invested in just two core bodies, namely, the Honiara Municipal Authority and the Honiara Town Council. In all examples, there are strong grounds to revise the institutional approaches to meet the challenges and social, economic and political context of the 1990s.

Urban management and planning is further complicated because many towns and cities are often fragmented over both a number of government authorities and a range of legislation. For example, in Suva, Fiji, the urban area is covered by a number of local municipalities such as Suva City, Nausori and Lami Town, which have responsibility for municipal health and welfare, while the expanding peri-urban areas are under the jurisdiction of Rural Local Authorities administered by the Ministry of Health (World Bank, 1995). While it has been recognised that urban planning in the Pacific needs to be oriented to both the medium and longer term, possibly up to a period of fifty years or more, this is a scenario likely to be unimaginable to many communities and their elected governments (Bryant-Tokalau, 1994).

Challenges for the Urban Economy

In countries with advanced levels of urbanisation and favourable growth of GDP such as in Asia, urbanisation and the rising trend in the shift from the agricultural to non-agricultural sectors has been accompanied by positive changes in the various sectors that contribute to GDP. Yet in the Pacific, the urbanisation process in many countries such as Kiribati and the Marshall Islands is still very much population led, rather than being paralleled by strong structural change in the urban economies and increasing their contribution to GDP. Population growth in all Pacific capitals has outstripped the ability of the urban economy to achieve sustained growth in terms of employment, productivity and efficiency. As such, many countries in the Pacific must be viewed as being in the initial stage of their urban transition as part of the urbanisation process. While there are differences in the socio-economic characteristics and GDP performance of Pacific islands, there are a number of common economic-based development constraints which underpin the economy of the larger human settlements and urbanisation process generally. These constraints include:

- **high degree of dependence on external assistance;**

- **limited domestic revenue-generating capacity;**

- **importance of remittances;**

- **importance of the public sector;**

- **reliance on imports;**

- **a narrow resource base and a limited range of products;**

- **dependence on a limited range of exports and vulnerability to fluctuations in world markets;**

- **importance of consumption;**

- **low levels of private investment;**

- **dual economy of subsistence and moniterised sectors;**

- **trade oriented private sector;**

- **size, remoteness and fragmentation;**

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- demographic characteristics especially high population growth rates;

- urban-rural imbalances; and

- vulnerability to natural disasters.

The way forward to achieve economic growth, the equitable distribution of such growth and gains in living standards in key human settlements will not be easy as many of the above are national parameters and some are outside the domain of government. As noted in Chapter Two, sustained improvement in the living standards of a greater proportion of the urban population is not possible without sustainable economic growth which raises a basic dilemma for many Pacific countries. The fundamental reality is that the key urban areas are the existing and potential engine rooms of economic growth - for example, the urban economy in Fiji accounts for 60% of GDP while in the Solomon Islands the urban economy accounts for 50% of national GDP - as well as social and cultural development. It is within these areas of population concentration that serious urban management reform, especially urban economic programming, must begin in partnership with government and the community.

Disaster Mitigation

The Pacific islands are exposed to many natural hazards such as tropical cyclones, floods, landslides, extended droughts, volcanic eruptions and earthquakes. In view of increasing population concentrations in urban areas as well as threats from the potential impact of climate change and sea-level rise, a major challenge exists to reduce the impact of natural disasters in the islands especially human settlements. The major cost of natural disasters to Pacific island countries represents a loss of development efforts and human resources that these countries cannot afford. Rather than respond to natural disasters with rehabilitation and relief programmes and projects alone, there is an increasing emphasis on reducing future losses through better planning and management response.

The Pacific is exposed to a range of extremely damaging hazards (see Table G). However, the most extremely damaging natural hazard is in the form of frequent cyclones. Vanuatu, for example, is one of the most cyclone prone islands of the Pacific with some 29 cyclones between 1970 and 1985 (UNDHA, 1994). Cyclone impact on infrastructure can be devastating. Between 1972 and 1982, Fiji lost 17,247 houses and had 712 school buildings damaged or destroyed from storms and cyclones (UNCHS, 1992). Those Pacific countries at risk from tropical cyclones include Fiji, Vanuatu, Solomon Islands, Tonga, Palau, FSM and Marshall Islands. Tropical cyclones are rare in Kiribati and Tuvalu but they do occur such as cyclones Tusi and Ofa in Tuvalu in 1988.

In January, 1993, cyclone Kina caused Fiji to suffer some of its worst financial as well as social losses with the destruction and damage to houses, property, infrastructure and crops valued at nearly some US$100 million. The heavy rainfall caused by the cyclone produced the worst flooding for nearly 60 years and was one of the major causes of damage. Although damage to the urban areas was comparatively minimal, partly due to an increasing use of cyclone based building and planning standards and community awareness generally, some 5,544 people in rural towns and villages qualified for emergency housing assistance (UNDHA, 1994)

TABLE G

Estimated Levels of Vulnerability to Specific Natural Hazards in Selected Pacific Island Countries

Country	Cyclone	Coastal Flood	River Flood	Drought	Earth-quake	Land-slide	Tsunami	Volcano
Fiji	H	H	H	M	M	H	H	-
FSM	M	H	L	H	L	L	H	-
Kiribati	L	H	-	H	L	L	H	-
Marshall Islands	M	H	-	H	L	L	H	-
Nauru	-	-	-	-	-	-	-	-
Palau	M	M	-	M	L	L	M	-
Solomon Islands	H	H	H	L	H	H	H	H
Tonga	H	H	M	H	H	L	H	H
Tuvalu	L	H	-	M	L	L	H	-
Vanuatu	H	H	H	L	H	H	H	H

H= high   M= medium   L= low

Source: United Nations Department of Humanitarian Affairs (UNDHA), Suva, Fiji, 1994.

Pacific islands are vulnerable to hazards for a number of reasons including fragile island environments, scattered and isolated communities, and more recently, the impacts of urbanisation and population pressure. As urban growth rates rise and there is an inadequate supply of urban land, hazard prone urban fringe areas are being increasingly settled, either as formal or informal makeshift housing areas. These increasing urban densities, as well as the development of marginal lands with low-arraying capacity, such as floodplains and stream banks, all increase the vulnerability of urban communities to natural disaster risks. Importantly for the management of disasters, all Pacific urban centres and their supporting infrastructure are generally located in coastal areas where the key disaster impacts are from flooding, cyclones and storm surges. With increasing population rates as well as densities, including high rise dwellings, earthquakes also pose a disaster threat to some Pacific towns and cities.

In the longer term, global warming and sea-level rise pose the most serious disaster threat to the social and economic sustainability of Pacific cities and towns. Urban centres in Pacific countries are most vulnerable because:

- some are located on low lying atolls only 1.5 metres above sea-level such as Funafuti, Tuvalu, and South Tarawa, Kiribati;

- most urban centres located on the larger mountainous islands are located on the coastal zones; and

- many settlements such as those in atoll countries depend on potable groundwater lens as their major source of drinking supply.

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The intensity of damage done by disasters in the Pacific over the last decade has made many Pacific countries realise the adverse impact that disasters can have on development efforts, in both the country and region. The South Pacific Disaster Reduction Programme, UNDHA, is assisting Pacific island countries to mitigate the effects of natural disasters, including those in urban areas. This has included new Building Codes for cyclone proof structures in six country's of the region. The framework for each country is based on emphasising:

- **human resource and institutional development;**

- **disaster planning and procedures;**

- **hazard, vulnerability and risk assessment; and**

- **community awareness including disaster warning.**

But within the growing urban areas there is still much work to be done. This includes identifying cities which pose major hazard risk and need vulnerability assessment, management of these areas to reduce risk including monitoring, and physical works that need to be put in place to reduce such risks, for example, river dredging, levee and seawall construction. Most importantly, there needs to be an increasing emphasis on enforcement and enabling legislation by policy makers and government.

3. CHAPTER THREE

NATIONAL HUMAN SETTLEMENTS AND BEST PRACTICES

Introduction

This Chapter provides an overview of the national human settlement context in each of the ten UNDP countries covered by this report, namely, Fiji, FSM, Kiribati, Marshall Islands, Nauru, Palau, Solomon Islands, Tonga, Tuvalu and Vanuatu. Paralleling selected country summaries are two examples of *'Best Practice'* nominated by the Habitat II focal points in that respective country. *'Best Practices'* are important as they provide a vehicle by which to build a broader Pacific picture of ways and means by which varying settlement needs are being addressed by successful and innovative solutions. *'Best Practices'* are examples nominated by the respective countries which could have application in other Pacific centres in a similar or modified form. While their are a range of other notable practices in operation in the Pacific with a range of participants including NGOs, the *'Best Practices'* as documented provide positive building blocks towards achieving sustained improvements in the quality of life and living environments of people. The country contacts for the nominated practices are given in Appendix A.

National Human Settlements Overview and Best Practice

* Fiji

Of all the countries in the Pacific, Fiji has the longest history of urbanisation and contrasts in settlement change and issues. The focus of urban population growth over the last twenty years has been in metropolitan Suva which dominates the urban hierarchy with just over with just over half the urban population. The last Census, 1986, shows the population of Suva, including the municipalities of Suva, Lami Town and Nausori and the growing peri-urban informal settlements, as being 171,000 persons. In 1986, the major urban concentrations, namely, Suva and Lautoka constituted some 76% of the total urban population, with the combined urban population being 277,000 persons or approximately 39% of the total Fiji population. At the same period, approximately 39% of the total population lived in urban areas with 20% of the total population living in Suva (UNCHS, 1992). While Fiji has low overall population pressures, within ten years the urban populations are expected to grow to 400,000 of which 66% of this urban population will be in the greater Suva urban area (World Bank, 1995). The urban economy is underpinned by growth in manufacturing, trade, services and tourism. Suva is the base for key regional institutions such as the University of the South Pacific, South Pacific Commission and Forum Secretariat.

Best Practice No. 1

Title: Reduction in Planning and Infrastructure Standards, Public Housing Sector, Suva

Names of key organisations involved: Fiji Housing Authority and the Ministry of Lands, Mineral Resources, Energy, Local Government and Environment

Key dates: Review of standards, 1991: Cabinet approval, 1992: Implementation, 1993/94/95

Project description: The public housing project focuses on issues of affordability and reducing costs to low income earners in the Caubati subdivision. Following a review of planning and infrastructure standards funded by external agencies, the Ministry and the Housing Authority adopted a new set of development standards covering planning (reduced plot size, setbacks and house size) and infrastructure (stormwater, road widths and sewerage). They have been implemented in a public housing estate with the construction of 507 lots in the subdivision. By late 1995, 185 houses had been completed by either self build, government or private contractors. A two bedroom house and land package can be purchased for approximately F$22,500. Cost savings to the purchasers by the reduced standards for land are in the order of 30%. The reduced standards in the subdivision means greater utilisation of land and less utility costs per plot, with a more affordable product for low income buyers.

Impact assessment: average 30% reduction in land costs: average 30% reduction in utility costs per lot.

Sustainability and broader application: The project has resulted in revised sectoral policies in planning, infrastructure and public housing and greater partnership between the Ministry and the Housing Authority. It has also clarified the role of local and central government in policy formulation and implementation for low income dwellers. Legislation changes are pending to the Town and Country Planning Act this year to incorporate affordability and low income housing objectives. The approach is now also being used in the urban areas of Lautoka on Viti Levu and Labasa on the island of Vanua Levu.

Best Practice No. 2

Title: Home Owner/Rental Housing, Public Housing Sector, Suva

Names of the key organisations involved: Public Rental Board and the Ministry of Lands, Mineral Resources, Energy, Local Government and Environment

Key dates: Policy reviewed 1991: Cabinet approved 1992: Implementation 1993/94/95

Project description: This project aimed to provide public housing which could either be rented or purchased by tenants in the Newtown estate. The housing stock is transitory in the sense that once the number in the household exceeds four and income levels rise pass a cut-off point, tenants or owner are asked to move or sell. The project started following the review of planning and infrastructure standards referred to in Project 1 and is oriented to easing the large demand for low income housing, generally for smaller households (all dwellings are one bedroom units, attached or detached at ground level). Weekly rental is $17.40 but home ownership is encouraged.

Impact assessment: 26 one bedroom units, 1994: 29 one bedroom units, 1995

Sustainability and broader application: The project has resulted in the provision of low income housing, albeit small in numbers, for rental or purchase by smaller households. There is a waiting list of some 2,500 persons for similar housing. Current tight controls ensure overcrowding is minimised and the notion of a 'transitionary/incremental' housing stage has appeal for many low income earners while saving for a larger dwelling. Aside

from community interest, the project has resulted in revised public housing policies and improved partnership between the Ministry and the Public Rental Board.

* Federated States of Micronesia (FSM)

A former United States Trust Territory, FSM is a federation of four states, namely, Pohnpei, Kosrae, Chuuk (Truk) and Yap. Each state manages its own natural resources and economic development. Total land area is only 695 square kilometres but with a total country area of over 2.6 million square kilometres (ADB, 1992). The first national census for FSM was carried out in 1994 and estimates put the total population at 104,724 persons. This reflects an annual growth rate since 1980 of some 2.6% (SPC, 1995). Kolonia is the main urban centre located in Pohnpei followed by the smaller villages of Lelu (Kosrae), Moen (Chuuk) and Colonia (Yap). The total urban population is estimated at approximately some 25,000 - 30,000 persons (Lea and Connell, 1993). Outside of Kolonia, the settlements are geographically isolated and suffer from run down infrastructure development, especially water supply and sanitation, and undeveloped private sector. While agriculture is still primarily at subsistence level, there is much potential to develop tourism, the leading source of foreign income.

Best Practice No. 1

Title: Integrated Watershed Management Project, Pohnpei

Names of the key organisations involved: Pohnpei Division of Forestry, The Nature Conservancy, Landcare Research, Australia, and the Asian Development Bank

Key dates: Beginning date, February 1994

Project description: This is an example of government and rural community cooperation, which is "bottom-up". It involves conservation of upland forest, job creation through ecotourism, water supply management and sustainable agriculture.

Impact assessment: This project has delayed soil erosion through promotion of agroforestry as opposed to monocropping. It has also encouraged community-based coastal zone management and protection of coastal and marine resources as part of its ecotourism thrust.

Sustainability and potential for broader application: Changes in sectoral policies and strategies. Harmonisation of sectoral policies and strategies. Changes in institutional arrangements. Changes in public awareness and perceptions.

* Kiribati

With a 1990 Census population of some 72,000 persons plus, Kiribati is spread out over 33 islands divided into three main groups, the Gilbert, Phoenix and Line group of islands. The westernmost group, the Gilbert Island group of 16 atoll islands, contains some 92% of the total country population. Located approximately midway in this north-south group of islands is the capital of Kiribati and main urban centre, South Tarawa. In 1990, South Tarawa had a population of some 25, 000 persons or approximately 35% of the total Kiribati population on a land area of 15.7 square kilometres. The island stretches some 35 kilometres from Betio to Buota and averages approximately 200 metres in width. Based on patterns of fertility,

mortality and migration, the population of South Tarawa is likely to be somewhere between 35,000 and 46,000 persons by the year 2010 and is likely to be doubled within 20 years time if components of South Tarawa's population growth are not changed significantly. The urban economy accounts for approximately 40% of GDP of which a significant proportion of this is dominated by government activity. Between 1985 and 1990, the labor force on South Tarawa increased by some 35% with most of this growth absorbed in the village and subsistence sectors.

Best Practice No. 1

Title: Self-Build Low Income Housing, South Tarawa

Names of key organisations involved: Kiribati Housing Corporation (KHC), Karikirakean Mwengaraoin Kiribati (KMK) and Kometen Toronibwai Mwengan (KTM)

Key dates: Community workshops held October, November and December, 1995: Co-operative, constitution, rules formed January, 1996: First self-build construction workshop, March, 1996

Project description: The project aims to address the housing needs of the low income population by increasing access to reasonable levels of shelter. This is an area not previously addressed by KHC as it has traditionally focused on public housing for civil servants. Following three workshops with some 52 low income people mainly women, the group agreed the best approach to raise shelter levels was to form a self-build housing co-operative (KTM) for low income households in the Betio area. The aim of the co-operative is to provide funds to members to build an appropriate low cost housing model, with plans as provided by KHC, and improve existing homes to ensure basic shelter with access to clean water, sanitation, hygienic cooking area and power. The KHC and an external agency, namely, UK ODA, have provided the initial start-up funds (A$30,000 for construction and A$ 2,000 for business generation) and members will make return payments by income generating activities. Monies have to be repaid in ten years. It is anticipated that the government will also contribute towards the initial start-up funds in a partnership arrangement.

Impact assessment: The co-operative is building an initial 6 low cost houses at a maximum cost of $4,000. Income generating activities currently being put in place to enable loan repayments are block and tile making. The income generating activities provides employment for unemployed household members.

Sustainability and broader application: The prevalence of increasing poverty and squatter settlements has caused the KHC, with support from KMK, an existing housing organisation focusing on housing provision on outer islands, to address the wider issues of public housing for low income earners. This was done by initiating community consultation and working with community groups to formulate housing needs assessment. The project is of such fundamental importance that the project and the income generating activities currently being put in place, are essentially being driven by its own members. It is proposed at some stage to possibly involve the Bank of Kiribati in the project, thus forging wider partnerships between the community, KHC, KMK and the private sector.

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Best Practice No. 2

Title: *Urban Management Plan for South Tarawa*

Names of key organisations involved: *Ministry of Home Affairs and Rural Development, Central Land Planning Board, the Betio Local Land Planning Board, the Betio Town Council, the Teinainano Urban Council, Kiribati Housing Corporation (KHC) and the Betio and Bairiki Local Village Area Committees.*

Key dates: *Local government workshop and concept endorsement, mid 1993: community and government deliberations and workshops, 1994/95: Cabinet approval of draft plan, 1996*

Project description: *This project aimed to strengthen government skills - central and local - and community awareness in the area of urban management and planning. The plan was initiated by government and local village committees in 1993 as a response to the increasing prevalence of the symptoms of urban development and urbanisation now being experienced on South Tarawa. Funding was provided by AusAID for this challenging project. Plan preparation was long and complex as it involved meeting with a wide variety of often conflicting groups - village committees, church groups, Tokotarawa (the South Tarawa landowners association) - as well as the local and central land planning boards in a traditional socio-cultural setting. The plan canvassed a whole range of issues relevant to participants over a three year period and finally agreed on some directions to accommodate the spiralling population and land problems of South Tarawa. The plan was endorsed as a basis for implementation by Cabinet in January, 1996.*

Impact assessment: *Urban Management Plan for South Tarawa report; establishment of new framework; government /community partnerships; community awareness.*

Sustainability and broader application: *As urban planning is a new and non traditional activity in South Tarawa and Kiribati generally, the urban management plan has resulted in the introduction of a new framework by which urban issues can be discussed and resolved. As a result of government forging new partnerships during this work, a number of related projects were commenced including waste disposal and land reclamation, land acquisition for KHC and better management of public sand and gravel resources. Generally, there has now been an increased community and government awareness on the urban environment generally. Critical outputs of the plan have been both the process itself and the product, the urban plan, which is just one step in a longer term process. This process will only be sustainable with continued resource commitment and by using the plan as a stepping stone to resolving other urban planning/management activities currently proposed.*

* Marshall Islands

The Republic of the Marshall Islands, formerly a United Nations Trust Territory administered by the United States until 1986, consists of some 34 islands over a land area of 182 square kilometres. In 1988, the national population was 43,300 persons with one of the highest population growth rates in the Pacific and globally, of 4.17%. Based on this rate, the population is expected to double in 17 years if growth rates are not managed. Its population is amongst the youngest in the world with approximately 50% of the population less than 15 years old. Approximately 65% of the population are located in the two urban atolls of Majuro, the capital, and Kwajalein and are concentrated on the Djarrit-Uliga-Dalap area on

Majuro and Ebeye on Kwajalein. Population densities on these islands are amongst the highest in the world - 2,027 persons per square kilometre in Majuro and 28,205 persons per square kilometre in Ebeye and are imposing acute impacts on the fragile atoll environment. The urban economy depends to a large degree on the aid from the United States and is a predominantly cash economy with minimal levels of subsistence lifestyle compared to the outer islands.

Best Practice No. 1

Title: Majuro Water Supply and Sanitation Project

Names of key organisations involved: Ministry of Public Works and Majuro Water and Sewer Company

Key dates: Project formulation, 1993: feasibility and ADB loan discussions, 1993/1994: complete design and construction, mid 1995: start of construction, 1996

Project description: The project aims to increase the supply of precious water reserves on a small atoll with high population growth and densities. The project expands Majuro's rainwater catchment and storage by utilising the runway catchment of the airport (land efficiency) and improving water supply to all residents of Majuro on a more reliable basis. The capacity of the parallel saltwater desalination system has also been extended thus resulting in less pressure on freshwater reserves. Management has also been improved by introducing new meters to improve collection of water rates.

Impact assessment: The project overall makes more up to 20% more freshwater water available on a 24 hour day, rather than a restricted basis, and eliminates water shortages during prolonged island droughts common in February and March annually.

Sustainability and broader application: The project has resulted in a community acceptance that freshwater is a scarce commodity on a small island with little land area and major population growth. More freshwater of a better quality will result in a healthier population. The project has also been accompanied by new management practices, such as pricing mechanisms, with a view to making the water company financially viable whilst satisfying basic needs of the community.

Best Practice No. 2

Title: Fisheries and Nautical Training Center, Majuro

Names of key organisations involved: Marshall Islands Marine Resources Authority and the RMI Fisheries and Nautical Training Centre

Key dates: Agreed to develop human and maritime resources, 1988: funding by UNDP to establish first Maritime Training Centre in Majuro, 1990: establishment of new Fisheries and Training Centre (FNTC), Majuro, 1992: government funding for centre, 1995

Project description: The Marshallese are well known both within and outside the region for their traditional navigational and maritime skills. This project is multi-faceted in that it focuses on building up traditional heritage skills, encourages youth job creation in the urban

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area, provides an educational base and opens up more sustainable local fishing opportunities as well as overseas employment. With the fishing industry centred on urban Majuro, especially the increasing number of longline shipping flotillas from Asia, there is an urgent need to upgrade the management capacity of both harbour, ship and maritime resources.

Impact assessment: *The project has attracted the attention on undergraduate youths, especially in Majuro, to further their education, thus providing opportunities to reduce youth unemployment whilst providing quality seafarers and management advisers.*

Sustainability and broader application: *The project has built upon traditional maritime and seafaring skills of the Marshallese. The centre is currently revising and upgrading its maritime legislation as well as making practical contributions to international conventions. The centre works in partnership with government such as the Ministry of Health and Environment, undertakes public awareness through local and regional media coverage whilst marketing its skills both within the Republic and overseas.*

* Nauru

The Republic of Nauru is located just to the south of the equator and occupies a land area of only 21 square kilometres. Being only a single island, national and urban population growth rates are the same. In 1992, Nauru's estimated population was 9, 919 persons reflecting an annual growth rate between 1983 and 1992 of 2.9%. Significantly, 42% of the population are aged under 15 years of age (SPC, 1995). Urban development is located on the peripheral edge of the island as the majority of the land has and is still being mined for phosphate. Unless there are major rehabilitation works, the amount of land for future settlement development is limited. Due to phosphate earnings managed in a trust fund, the island is comparatively well off. There are little signs of traditional housing settlements, most now being permanent structures, and the island is totally reliant on overseas countries for all goods and services.

* Palau

The Republic of Palau, located to the west of FSM in Micronesia, is a republic affiliated with the United States and has more than 200 islands of which only 9 are inhabited. Palau is divided into 16 states and the estimates from the 1990 census estimated the total population as 15,122 persons, an increase of 9% since 1986. The urban administrative centre of Palau is the island and state of Koror containing 69% of the country population. The urban growth rate in Koror per annum is approximately 2.7% which is higher than the annual population growth rates of 2.1%. Population densities in Koror are in the order of 574 persons per square kilometre and rising (SPC, 1990). Tourism developments, a major contributor to GDP, is putting a major strain on existing infrastructure capacity in Koror.

Best Practice No. 1

Title: *Upgraded Reticulated Water System in the State of Koror*

Names of key organisations involved: *Bureau of Public Works with funding from Japan*

Key dates: *Project formulation, 1990; funding secured and project construction contract let for Phase I late 1990; Phase II contract awarded and let in 1992; Phase III funding and contract awarded 1992 and let in 1993*

Project description: *This project aims to increase the capacity of the water supply system to the main urban centre on a 24 hour basis as well as introduce management changes to the Bureau of Public Works. The project was based over three phases so as to install a new water network and distribution mains for the capital city water system. The three phases included the installation of approximately 5 kilometres of transmission pipeline from the storage to the main treatment and pumping plant, installation of approximately 11 kilometres of water distribution lines throughout the capital centre area and installation of a new pump and motor controls in the main pumping station.*

Impact assessment: *The project has given the capital city 24 hour pressurised water, including businesses and households. Water quality has improved ass algae and other contaminants in the pipe are no longer dislodged due to intermittent pressure and part-time reticulated supply.*

Sustainability and broader application: *As water quantity has increased, public awareness and opinion has become more focused on improving water quality in the community generally. As a result of the increasing awareness, the Palau national government has not budgeted approximately US$4 million for the design and construction of a "pre-treatment" plant for the capital's centre's water system in order to improve the quality up to USEPA drinking water standards. In addition, the Bureau of Public Works with community support is addressing the management issues of charging users more realistic rates to part cover costs of water reticulation, plus address the issue of leakages and illegal tampering. The key outcomes of the project are social and community acceptance, potential for broader application in rural areas as well as urban villages, and the promotion of partnerships with government in implementing the water system leakage and metering programmes.*

Best Practice No. 2

Title: *Youth Community Co-operation and Civic Spirit, Ngeremlengui State*

Names of the key organisations involved: *Ngeremlengui State Youth, Palau government, State Governor and State Legislature, Traditional leaders*

Key date: *Election of Governor J. Skeborg, 1992, and agreement by community and traditional leaders on priorities, 1993*

Project description: *With a focus on the urban areas, the Ngeremlengui Youth in partnership with elders and other community groups have declared themselves as 'drug free' youth. The use of alcohol and illicit drugs are not permitted in any activities organised by the youth association which covers most youth on the island. As well, the youth including the unemployed, have been undertaking actions for both state projects, such as roads, toilets, parks, as well as helping with funerals, marriages and personal obligations. All the work by the youth groups have been on a voluntary basis and have been well supported by the community.*

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Impact assessment: The Ngeremlengui Youth and community groups have completed an elderly meeting facility on the Eastern waterfront: 5 toilet blocks and the major access road and park area fronting the State waterfall

Sustainability and broader application: This project has emphasised the gains to be made by social acceptance and consensus, with a focus on youth in partnerships with other community groups in an urban area. Partnerships have been developed by youth and the executive and legislative branches of government as well as traditional chiefs and women's groups. At the heart of most, this social mobilisation in Palau is the respect for the nuclear family structure and the desire by community elders and government for it to remain intact and be reinforced by community actions

* Solomon Islands

The Solomon Islands has one of the lowest rates of urbanisation in the Pacific yet has one of the fastest growing urban centres, Honiara, both globally and in the Pacific. Approximately 13% of the population live in urban areas - 11% in Honiara and 2% in Auki and Gizo - yet Honiara's growth rate is 6.2% per annum. This is significantly higher than the annual growth rate of 3.4% for the total country, in which 47% is under 15 years of age. Honiara had an estimated 1994 population of 45,000 persons, with much of the in-migration coming from the Malaita province where economic activity is low and population growth rates high (World Bank, 1995). Honiara is the economic focal point in the country, accounting for approximately half of the total formal employment in the Solomon Islands, 61% of all wages paid and the center of services and industry. As noted earlier, Honiara accounts for approximately half of national GDP.

* Tonga

The Kingdom of Tonga consists of some 150 islands with a total land area of 747 square kilometres. There are 36 inhabited islands comprising 75% of the land area and approximately 90% of the population. Tonga has a estimated population of 94,649 persons with one of the lowest growth rates in the Pacific of 0.5% per annum. The capital centre, Nuku'alofa, is located on the island of Tongatapu and has a population of 29,018 persons or 31% of the population. Smaller urban villages exist on the outer islands such as Pangai in the Ha'apai Group. Annual urban population growth is in the order of 2.5% (SPC, 1995) Much of Nuku'alofa's growth has come from internal migration from the outer islands to Tongatapu, and from rural areas of Tongatapu to the capital. The urban economy is characterised by a strong manufacturing and service sector. Land availability and orderly expansion, sanitation, water supply and protection of groundwater reserves on Tongatapu are amongst the major settlement issues facing Nuku'alofa.

* Tuvalu

Tuvalu is one of the smallest island states in the Pacific consisting of 9 atolls with a land area of only 25.9 kilometres. Extending some 560 kilometres from north to south, the 1990 population census was some 9,043 persons with an annual population growth rate of 1.7%. Funafuti is the capital island and urban centre and has a population of some 3,839 persons (SPC, 1995). The land area of Funafuti is only 2.8 kilometres of which nearly one-third is taken up by the airport runway. Annual urban population growth rate for Funafuti is approximately 4.8% with densities in the order of 1,371 persons per square kilometres. In

1990, 42% of the Tuvaluan population resided in Funafuti compared with 29% in 1986. Like Kiribati, the islands of Tuvalu rarely exceed 2 or 3 metres above sea-level. High urban population growth in Funafuti, including population rise from outer island migration, has led to landlessness and competition for land, overcrowding on Fogafale islet, groundwater depletion, environmental pollution from non-reticulated sewerage and ad hoc waste disposal, as well as over fishing of the surrounding reef and lagoon. Environmental planning and management including waste management and land reclamation, are key priorities given global warming and sea-level may lead to the atolls of Tuvalu uninhabitable (ADB, 1992).

* **Vanuatu**

The Republic of Vanuatu consists of some 80 islands of which some 68 islands are inhabited. The 1989 estimated population was some 142,944 persons occupying an area of 12,190 square kilometres excluding the uninhabited islands. While annual population growth rate is 2.8%, urban population growth rate is at an increasing at a staggering 7.3% per annum. Some 18% of the population live in the national capital, Port Vila (19,311 persons) and in Luganville, Vanuatu's only other town. The bulk of Vanuatu's population, some 82%, still reside in the rural areas. Some 44% of the population is aged under 15 years which is a marginal decline on early census figures (SPC, 1995). The growth of Port Vila and Luganville has been fuelled by strong rural-urban migration and urbanisation which has led to widespread informal housing, squatter settlements and a prevalence of increasing poverty (Bryant-Tokalau, 1995). Urban planning and management is most needed in the areas of programming for water supply, environmental sanitation, environmental health and orderly land supply and urban expansion (ADB, 1992).

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4. CHAPTER FOUR

A WAY FORWARD - DEFINING SUSTAINABLE HUMAN SETTLEMENT DIRECTIONS IN THE PACIFIC

An Urban Future for Pacific Human Settlements

Chapters One to Three all suggest that the trend towards increasing urbanisation of human settlements and associated social, environmental and economic stress in Pacific island countries is unlikely to be reversed. There is as an increasing number of islanders now seeking to satisfy their economic and social needs and desires in an urban setting. Urbanisation and issues associated with human settlements are likely to take on increasing significance in the Pacific because of:

- **rising populations;**

- **rural-urban migration;**

- **economic development;**

- **infrastructure maintenance problems;**

- **concentration of poverty and vulnerability in urban areas;**

- **rising expectations.**

It is difficult for national governments and island planning bodies to effectively deal and keep pace with such issues. Indicators throughout the Pacific all suggest that urban conditions - for example, water, sanitation, environmental degradation, under-resourced local government, growing squatter settlements, increasing population, unemployment, housing and domestic waste disposal - will further decline before the end of the decade.

For a range of reasons including the deep rooted, traditional socio-cultural systems prevailing in the Pacific, the multi-sectoral nature of the urban sector and large number of agencies, key players, projects and programmes involved, there appears an inability of island governments and communities to effectively make a commitment to deal with such problems. In contrast to the larger islands such as Fiji, Solomon Islands and Vanuatu, for example, such urban problems are more visible in the smaller Pacific countries which have fragile atoll environments and little arable land - for example, Kiribati, Marshall Islands and Tuvalu. Overall, there appears a clear trend in all the Pacific that towns are now growing faster than village communities, suggesting that the future of human settlements in the region is primarily an urban one with rapid urbanisation likely to continue to transform human settlements well into the next century. Significantly, " the present unmanageable scenario is not inevitable; urban problems need not worsen, urban unemployment and population growth rates do not have to increase as fast as they are" (Lea and Connell, 1994).

The importance therefore of defining and cultivating a Pacific approach to the problems of human settlements and their management as opposed to the often imported 'western technical models' of management inherited by many countries from the colonial era, cannot be understated. The I-Kiribati participants of an *'Urban Management Workshop'* held in South

Tarawa in 1994 identified a range of factors affecting the performance of urban management and planning in overcrowded South Tarawa, including:

- **political will and stability;**

- **the support of the community;**

- **weak and under-resourced local government;**

- **community motivation and awareness of key issues;**

- **affordability and the prevailing economic circumstances;**

- **skill, motivation and drive of senior policy makers in the public service;**

- **social and cultural factors such as those which inhibit the exchange of information between groups and which still elevate the role of traditional decision-making structures rather than decisions of government; and**

- **the importance attributed to the traditional rights of the landowner as the accepted priority 'land manager'.**

Such key variables raise basic questions on directions for sustainable human settlements, urbanisation, urban management and planning in the Pacific.

Understanding Pacific Human Settlements

If the future for many human settlements in the Pacific is an urban one, then the notion of defining directions for sustainable human settlements and urbanisation takes on increasing significance. Despite whether economic policies continue to be directed to polarising development in key human settlements or not as has generally happened in the past, human settlement change and the underlying urbanisation process needs to be managed more efficiently if gains in living standards and the quality of the urban environment are to achieved. Observation in the field suggests that there are a number of shortcomings in our current understanding of the dynamics of planning and management for human settlements in Pacific countries. In the context of clarifying such notions, these key parameters include:

- **an absence of explanatory and predictive frameworks and models for human settlements and urbanisation in Pacific island states;**

- **lack of consensus on what integrated environmental, economic and social planning really means including how best to analyse islands as integrated systems including population impacts;**

- **an absence of defined carrying capacities, linkages and limits critical to sustaining natural and man-made processes;**

- **lack of basic and fundamental field data on urban income levels, cost of living indicators, affordability, housing, urban economy and employment levels as well as linkages between population, environment and poverty;**

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- a lack of understanding especially by donor agencies on the nature and depth of the cultural, economic and social attitudes of the urban population to key needs and problems - for example, the need for medium and long term planning, the provision of basic urban services, the dynamics of customary land tenure; and

- the lack of direction from national government on institutional change and capacity building for urban planning and management, especially for local government. This tends to reflect the prevailing social, economic and cultural setting of the country rather than inherited and outmoded colonial structures.

If the minimum requirements for achieving sustainable development have been identified as:

- the elimination of poverty;

- a reduction in population growth;

- more equitable distribution of resources;

- more educated, healthier, better trained population;

- more participatory and decentralised government;

- more equitable trading and economic systems including increased production for local consumption;

- better understanding of the diversity of ecosystems; and

- locally derived solutions to environmental problems and better monitoring of the environmental impact of development activities (UN, 1994).

then a *key issue to address is what are the critical success factors needed to achieve sustainable human settlements in a Pacific context.*

Towards Sustainable Human Settlements

The overall goal of sustainable development is to ensure that the population has a secure living environment which promotes reasonable levels of shelter, health and well-being which does not require an unsustainable level of resource use. UNCHS (1990) has recommended that human settlements can be evaluated against a number of criteria including:

- the quality of life it offers to it people and communities;

- the scale of non-renewable resource use such as fuels and minerals;

- the scale and nature of renewable resource use such as fishing, and the implications of sustaining renewable production levels; and

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- the scale and nature of non-reusable wastes generated by production and consumption activities and the means by which they are disposed of in our communities.

At the heart of the relevance of these criteria in the Pacific are four common themes which cut across all the issues identified in earlier Chapters, namely:

- the continuing prominence of customary land tenure and its impact on the availability of an orderly supply of land for human settlement development. The South Pacific Commission and the University of the South Pacific (1995) estimate that more than 90% of land in the twenty two countries that comprise the wider Pacific sub-region are held under customary land tenure which is more than any other region in the world. To further tamper with traditional land tenure too quickly will result in further social, cultural and economic stress on the population.

- the issue of empowering the local sphere of government to take a greater role in urban affairs; ...

- the need to share the benefits of growth, including basic service provision, to a greater proportion of the population including women; and

- the need for communities to embrace the broader notions of urban planning and management as a means to an end, which traditionally has not been part of their charter.

These are the basic matters which need to be urgently addressed in addition to the related issues of poorly managed development, lack of human skills in urban growth management and the other key growth factors, namely, population control and human capital, equitable economic growth, rural-urban migration and decentralisation and improvements to outer island development. Yet these issues will only be resolved if urban management is combined with traditional decision-making structures and government takes a greater role in fostering village and community participation.

In the haste by many Pacific countries to embrace development and economic growth, many Pacific communities have been left out of the 'government' development process and their input has been token. The traditional ways of participation and decision-making in many Pacific villages have been overtaken by the authority of government and other influential bodies such as the church, despite the cohesiveness and strengths of Pacific societies. On the other hand, many villagers see government as something that is foreign and alien, a creature born out of the colonial era, and as such have not appreciated the wider linkages and impacts underpinning the development projects and processes characterising the 1990s.

The challenge now for urban management and sustainable human settlements in the Pacific is to refocus the decision-making process in partnership with NGOs, government, churches, communities and key groups. Otherwise basic needs and the symptoms of urbanisation will worsen and will not be resolved. Traditional decision-making structures focused on social and cultural matters do exist in most countries of the Pacific such as the *unimane* in Kiribati, the *Bose Levu vaka Turaga* and the *Malfatu Mauri* in Vanuatu yet their involvement in the broader development process has been limited. The pace of urban growth and the nature and scale of development solutions now required clearly suggests these institutions and the

communities they represent must be an integral part of the decision and solution making process. The main tasks are to define and clarifying the social, cultural and economic goals and objectives of development which are fundamental to national culture, identity and the development process of island countries. As acknowledged by the World Bank (1991), "the prospects for economic development are conditioned to a considerable extent by the Islands social patterns .... this mosaic of cultural endowments exerts a profound influence over the pattern and prospects for development ".

Urban Management

The challenge is for all the sectoral elements of the human settlements process including education, communications, transport and health to be brought together and co-ordinated through the process of urban management if sustainable development is to achieved. Human settlements management provides the opportunity to reconcile the goals, priorities, resource allocations and implementation methods of all sectoral components in a comprehensive development programme for a single or number of spatial areas. However, through no fault of their own, responsible government agencies in the Pacific lack skills and capabilities in three key areas critical to human settlement and urbanisation management, namely:

- **a lack of forward planning;**

- **a lack of skills in budgeting and revenue generation especially at local government level; and**

- **an absence of tools for monitoring and evaluation such as the use and applicability of urban indicators.**

One regional approach to sustainable human settlements management in the Pacific is to set a range of targets and standards for key urban parameters such as standards of living, land, environment, urban economy, urban government, infrastructure, island carrying capacity, population growth and equity, access and human development indicators such as poverty. The UNCHS Urban Indicators programme provides a good basis for setting and agreeing on such parameters. If the standard for the above variable or number of variables is not achieved, then the objective of achieving sustainable human settlements and sustainable development over a specified target period is reduced.

TABLE F

Key Socio-Cultural Constraints to Achieving Sustainable Urbanisation and Urban Development in Pacific Islands

Key Elements of the Urbanisation and Urban Development Process	Possible Sustainable Urbanisation and Urban Development Objectives	Potential Socio-Cultural Constraints to Achieving Objectives
Community planning and management skills	* identify issues * set goals and objectives over short, medium and long term * implement plans and policies	* traditional lifestyle oriented to day to day/ week to week needs * information insufficiently shared * small human resource base
Land-use management	* establish minimum and affordable development standards and performance criteria	* landowner consents needed for development both government and private * individual and kinship groups have total rights over land * cost and affordability * conflicts with strong principles of individual liberty and freedom
Housing and shelter	* establish minimum development standards and performance criteria * provide funding sources * provide orderly supply of land	* need for landowner consent * cost and affordability * reciprocal kinship obligations of extended family
Poverty alleviation	* equitable and accessible distribution of public resources/ basic services	* not recognised as an issue * reciprocal kinship obligations of extended family * cost and affordability * constraints on access to land
Land supply	* increase land supply by government and private sector * rationalise customary land constraints	* needs Co-operation of landowners * private sector involvement may conflict with strong egalitarian principles * tampering with land tenure will result in social dislocation/stress
Water	* preserve water sources * minimise impact on water quality * support variety of affordable catchment and supply options	* cost and affordability * population and overcrowding pressures * water traditionally from wells, streams and rivers
Sewerage	* minimise impact on water quality and island ecosystems * minimise environmental health impacts	* cost and affordability of alternative systems * traditional defecation methods still prevalent
Waste disposal	* co-ordinated collection * land reclamation * nominated landfill and recycling sites * composting	* not seen as an issue as traditional waste was bio-degradable * cost and affordable
Population growth rates/ rural urban migration	* rationalise population policy * reduce birth rates * balance rural-urban development programmes	* conflict with strong views of Church on birth control * controlled migration goes against principles of freedom of movement and individual liberty
Urban management	* establish partnerships with community and local government * relate national and regional plans to budgets * human resource development	* conflict with traditional decision-making process of villages and island Councils * minimal human resource base * not seen as an issue and so minimal commitment

Source: Adapted from Jones, 1995b.

As part of this process, there is likely to be a need for some potential trade-off involving the modification and/or loss of socio-cultural values which directly impact on the urban development and urbanisation processes at work in each Pacific country. Social and cultural values, norms, concepts and styles in both urban and rural areas need to be realistically assessed as part of the development process toward sustainable livelihoods, including customary land tenure. Table F suggests some key socio-cultural constraints in Pacific island countries which have emerged as having impacted on the urban development and urbanisation process in Pacific human settlements.

The above all suggests that *pivotal* to the success or otherwise of achieving sustainable human settlements and urbanisation in Pacific countries will be:

- **acceptance and adoption of the notions of urban management and planning generally, including human development planning, towards achieving sustainable human settlements and sustainable urbanisation;**

- **the adoption of urban planning and management as new, non- traditional activities whose structures and institutional mechanisms are orientated towards achieving public interest issues in conjunction with the traditional rights of the individual landowner; and**

- **sustained political commitment and community will combine with positive social, economic and cultural attitudes of the population to achieving key urban development activities especially the adequate provision of 'basic' urban needs. In the absence of detailed urban indicators, these appear to suggest themselves, namely, land, shelter, water supply, sanitation, waste removal, education and health.**

Innovative Practices

The most recently completed urbanisation plan and strategy (stage one) in the Pacific is the *Urban Management Plan for South Tarawa* completed by the Ministry of Home Affairs and Rural Development, Government of Kiribati, December, 1995. The plan, completed in-house over a three year period with local communities and local government, identifies the characteristics and parameters of *good planning and urban management* needed to resolve human settlement issues. As they have direct relevance to other Pacific communities they are outlined below:

- **sustained Government and political commitment, including increased planning capacity to local Government;**

- **recognition that planning for the urban area is wide ranging and covers a range of social, economic and environmental issues, which in view of extreme population and land pressures, should be viewed over the longer term;**

- **agreement that urban planning is *multi-sector* and requires *extensive interagency co—ordination and integration* as a basis to provide an effective management system;**

- **_co-ordination_ between sectors and ministries at the national levels should be based on co-ordination with the national economic development planning and budgeting**

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process. Co-ordination at the local level should be in the form of inputs to policy formulation as well as project and program implementation;

- integration of urban planning with the *resource mobilisation* and allocation processes at the local, regional and national levels;

- acknowledgment that urban planning is a *non-traditional activity* with few local skills and resources and as such, a gradual institutional build-up from the existing sector base is preferred;

- an *urban management approach* that integrates local decision-making structures such as the *maneabas* and the village area committees with existing structures so as to provide a sound basis for community involvement in the decision-making process;

- the preparation and adoption of an *Urban Development Program* for the urban area. This urban programming tool cuts across a range of sectors so as to guide key urban investment decisions, thus ensuring that the allocation of resources reflects the communities and governments priorities, needs and demands.

The significance of the above for other Pacific communities is not that the details of implementation have been finalised, but that the key players have managed to confront and understand the urban development setting in which they participate in their daily lives. The process of urban management used here by the indigenous population within there own socio-cultural framework was to:

- identify the basic urban issues and problems;

- generate political awareness of solutions and options;

- reach consensus on policies and strategies; and

- develop initiatives to address the major issues.

Programme Approach

Human settlement management requires the key participants, namely, government, NGOs and community groups to be greatly strengthened with enabling skills and revised orientation to their responsibilities. Settlement management in the Pacific must be based on the fundamental premise that all participants in the sustainable development process can be facilitated in reaching their potential and productive roles. Bilateral donors such as Australia, New Zealand, Canada, Japan and Great Britain, multilateral donors such as the Asian Development Bank (ADB) as well as other agencies of the United Nations systems such as ESCAP have all been involved in providing assistance to Pacific island countries in the broad area of urban development and institutional management. The bulk of this assistance has been concentrated on infrastructure, land, housing and environmental issues while more recently there is an increasing emphasis on health, education, government and human resource training. Environmental management has generally been the domain of the South Pacific Regional Environment Programme (SPREP) supported by bilateral donors.

Traditionally, much assistance has been project based and sectoral resulting in inefficiencies in expenditure. More recently, assistance has been cross-sectoral and programme-oriented often focusing on a multi-disciplinary approach to resolving Pacific settlement and human development issues. This latter approach in assistance in human settlements and related human development needs is a positive direction as for many resource-poor Pacific islands, their priority need is not detailed technical solutions but the strengthening of managerial, policy and planning capacity of their human resources especially in the dominant public service.

Foreign aid has contributed significantly to human development in the Pacific and has the potential to be far more effective in the future in contributing to human settlements development and management. Key areas for focus are:

- **institutional building;**

- **improving general urban management, planning and urban programming capabilities;**

- **employment generation; and**

- **supporting NGOs and local community development programmes such as those involving local government.**

Assistance that will most be effective will be those programmes that include a substantial focus on community needs assessment and the growth of human capital in urban areas. This potentially gives people a choice to embrace a greater well-being and quality of life and ultimately, better management and planning of human settlements. To this end, the design of national human settlement and urbanisation plans and strategies ultimately depends on a political commitment to tackle the rising problems of human settlements and to facilitate country specific initiatives, which recognise that human settlements have a central place in economic and social policy making and managing the natural environment.

5. CHAPTER FIVE

A PACIFIC REGIONAL PLAN OF ACTION, 1996-2000

Introduction

The Pacific Regional Plan of Action is oriented towards the need to co-ordinate various levels of government, NGOs and others in the formulation, development and implementation of human settlement programmes in a cross-sectoral approach. The plan is set in the context of the urbanisation processes that are transforming towns and villages in the Pacific and the reality that the future of the Pacific is clearly urban. The plan is divided into three components; overall goals and objectives, key issues and building blocks for action, and is not provided as a rigid blueprint and policy document. Rather, it acknowledges the human settlements disparities within countries of the Pacific, their wide geographical dispersal within and between countries, their limited resource base and the positive lessons to be learnt from the *'Best Practices'* currently in operation in islands of the Pacific.

The plan provides pointers to the future which can be acted upon at both the regional and country level prior to the end of the decade to address the fundamental issue of sustainable human settlements. This includes the right of every Pacific islander to adequate shelter and housing. The endorsement by heads of states and governments of the Suva Declaration on *Sustainable Human Development in the Pacific* at the 25th South Pacific Forum, August, 1994, recognised that if the growing inequalities among the region's people were not adequately dealt with, they would erode the Pacific quality of life and restrict efforts to promote economic growth. More recently, many of the governments in the region may have made a commitment to some of these issues at various UN conferences such as the 'Small Islands Developing States Conference' at Barbados, 'World Population Conference' in Cairo, the 'International Women's Conference' in Beijing and the 'World Social Summit' in Copenhagen, but not specifically within the context of a holistic approach of human urban settlements. The challenge appears threefold:

- **to ensure the following key directions are treated as a comprehensive and integrated package cutting across a range of urban sectors and players;**

- **to translate the regional plan into an action plan at the country level in the context of the prevailing social, cultural, economic and political island setting and an urban 'needs assessment'; and**

- **to continue to raise the profile of human settlement issues in the Pacific and the underlying issues impacting on their sustainability via the key regional and country participants. This includes local and central governments, NGOs and community based organisations, research and training institutes such as the University of the South Pacific (USP), community groups, private business and the media.**

The implications of government, regional agencies and other participants making a commitment to the *'Pacific Regional Plan of Action, 1996-2000'* will be a need to:

- **expand their activities on urban programming at the country and regional level;**

- prepare policy and position papers on major Pacific urban topics - for example, urban poverty eradication, urban indicators, urban economy performance, affordable water and sanitation options;

- provide regional and country co-ordination on urban matters;

- mobilise existing and additional resources; and

- strengthen the capacity of regional organisations to provide technical support to countries offices on urban management especially urban programming and planning.

A Pacific Regional Plan of Action, 1996-2000

REGIONAL GOALS AND OBJECTIVES

The overall aim is to improve the quality of life in existing and proposed Pacific human settlement areas, especially the rapidly growing urban areas, with a major emphasis on human development, environmental sustainability, government and community partnerships, urban economic productivity and structural change, which equitably distributes the benefits of growth whilst recognising the underlying social and cultural constraints to development. The three key objectives of the plan are:

- support Pacific countries to prepare, formulate, implement and monitor urban management and development plans and strategies based on human settlement needs assessment;

- to link regional and country level programmes in the context of cross-sectoral urban management plans; and

- advocate co-operation and community awareness in facing the common Pacific urban issues at the regional and country levels with various agencies, all levels of government, NGOs, community groups and research and training institutes.

FACING THE KEY ISSUES

- ISSUE: Understanding the condition of human settlements in the region and why they are experiencing increasing social, economic and environmental decline,

- ISSUE: Defining the key components underlying the Pacific urbanisation and urban development process including population impacts and cross-linkages with rural areas.

- ISSUE: Understanding the dynamics of the urban economy and human settlements generally, including employment generation, the contribution of the informal sector and the urgent need for improved urban infrastructure in underpinning sustainable livelihoods.

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- **ISSUE:** Acknowledging the socio-cultural dimensions of land and the need to confront the constraints and opportunities in providing adequate supply.

- **ISSUE:** Understanding the cause and effects of the emerging urban poverty, its dimensions and means of alleviation so as to clarify the major social and economic major building blocks needed to achieve sustainable livelihoods.

- **ISSUE:** Recognising the depth of adverse health and environmental problems emerging in human settlements especially those associated with high urban population densities and overcrowding.

- **ISSUE:** Accepting that opportunities for sustainable human development in the major urban areas are unevenly distributed because of geographic disparities in access to economic opportunities and social services, gender disparities in access which generally disadvantage women, and that opportunities for social development have not always been effectively managed.

- **ISSUE:** Acknowledging that institutional frameworks are a major conduit for the effective management of human settlements, especially service provision and human resource development, at the regional, country and local levels.

BUILDING BLOCKS FOR ACTION

- **ACTION 1.** *The preparation and implementation of human settlement and urban management plan and policies.*

Urban management plans and policy formation should be given serious recognition in the development programming process and at national level planning. National, sub-regional and local urban policies and plans need to be defined. Use of management programming tools such as an *Urban Development Programme* which integrates cross-sector urban capital works, needs assessment such as population growth rates, housing demand and land supply and other critical factors, are a key starting point in overall urban management and rationalisation of spatial plans.

- **ACTION 2.** *Impact and needs assessment of the urban areas including the urban economy.*

The available data in the Pacific shows that the urban areas are the major engine rooms of economic growth and they make a substantial contribution to GDP. While structural change in urban economies has been generally slow, little detail is known about their efficiency and productivity potential. Urgent attention should be given to an integrated social, economic and environmental needs assessment of the major urban areas. This should include capital expenditure required on the major urban production functions of land, housing and infrastructure. There is a need to instigate economic and social reform so as to make real improvements in job creation in the informal sector and alleviating poverty.

- **ACTION 3.** *Strengthening government co-ordination, co-operation and clarifying roles and responsibility*

Lack of government and interagency co-ordination is a common characteristic of inefficient and unsustainable Pacific urban areas. The participation of other actors including NGOs and research institutes, is necessary at the policy, programme and project levels. Government should clarify the responsibilities of the various agencies and departments involved in urban development and management especially in the provision of urban infrastructure. The devolution of power and strengthening of the institutional, technical and managerial capacities of local government is a priority action throughout all Pacific centres.

- **ACTION 4.** *Invest in human development in urban areas.*

The main objective of development is to improve human well-being and the quality of peoples lives. Development in the urban areas must be focused on people, their needs and aspirations. Government must refocus in new urban plans promoting equitable development, social integration, sound governance, regeneration of the environment and safe guarding options for future urban generations. The equitable distribution of the benefits of economic growth suggests governments need to increase their investment share in the basics of education and health, especially for the urban poor and future urban labor force.

- **ACTION 5.** *Assist Pacific urban information and research networks.*

Documentation on urban research and basic record keeping matters and data gathering in government need major improvement. Support should be given to establishing a Pacific urban forum or network where urban development needs and related issues can be debated and 'Best Practice' work can be exchanged. UNCHS urban indicators should be prepared for all Pacific centres as a basis for country and regional policy and project formulation.

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Appendices

Appendix A

'Best Practices' Country Contacts

Fiji

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Federated States of Micronesia

Project No. 1 - Mr. Jeem Lippwe, Department of External Affairs, Pohnpei, FSM

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Project No. 2 - Mr. H. Redfern, Lands and Survey Division, Ministry of Home Affairs and Rural Development, P. O. Box 7, Bairiki, South Tarawa. Phone: (686) 21100

Marshall Islands

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Project No. 2 - Capt., L. Muller, Principal, RMI Fisheries and Nautical Training Centre, P.O. Box 800, Majuro. Marshall Islands. M. H. 96960.

Palau

Project No. 1 - Mr. Techur Rengulbai, Chief of Utilities, Water Branch, Bureau fo Public Works, P. O. Box 100, Koror, Palau 96940; Mr. Singeru Nqiramolau, Director of Public Works, P. O. Box 100, Koror, Palau 96940

Project No. 2 - Honourable John Skebong, Governor, Ngeremiengui State, State Govenrment Office, Ngeremiengui State, Republic of Palau; Mr. Barmelio Ibutirang, President, Ngeremlengui Youth, State Government Office, Ngeremlengui State, Republic of Palau