

3 Points of view





An Urban Pacific: Oxymoron or Good Planning?

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Foreword

Swaying palm trees, white sand beaches, turquoise water, and thatched villages make up the stylised vision of the Pacific islands for most visitors. For exactly these attributes, tourists arrive by the planeload to escape their modern cities for a few weeks, and islanders welcome them with legendary hospitality. But for an increasing proportion of those who live in the islands, life is an increasingly urban phenomenon. Rather than creating dissonance between these seemingly incompatible worlds, exploitation of the urban/rural dichotomy is leading to a sustainable future for the island countries of the Pacific.

Urbanisation is usually described as one of the major problems facing Pacific island countries. Political statements, action plans, and donor policies are regularly targeted at stemming “urban drift”. Migration, urban expansion, and economic modernisation are believed to be at the root of evils ranging from poverty to social pathology.

They are not. Instead, well-planned urbanisation and modernisation are rational responses and potential solutions to these problems.

To be sure, planning and managing the transition from dispersed rural subsistence agriculture to a concentrated and diversified urban economy has never been easy. However, not only is this transition essential for the survival of most

Pacific societies as independent nations, it will prove beneficial across the spectrum of socio-economic development. Early recognition and supportive policies can ensure its success.

Background

The need to improve the provision of sustainable urban services, including more effective institutional responses, is driven by the nature of urbanisation in the Pacific islands.

Urbanisation is the process whereby an increasing proportion of the national population comes to live in the towns. It is an almost universal corollary of modern economic development. Pacific towns and cities are experiencing urban growth and change for the same reasons that drive urban change in all developing countries: desire for employment, education, health care, and better living standards. About half of the urban growth is due to rural-urban migration, but the other half to natural growth from long-established formal and informal populations. Pacific urbanisation is no longer a function of circular migration of young men looking for economic opportunity, but is often permanent and multi-generational.

The future of Pacific towns and cities is clearly urban. Trends in population growth in towns and cities and at the national level are shown in the table below.



Table 1: Pacific Urbanisation Indicators, 1990s

Country	Urban Population %	National Population growth per annum, %	Urban Population growth per annum, %
Cook Islands			0.5
Fiji	43.4	2.0	2.6
Federated States of Micronesia	26.0	2.6	1.2
Kiribati	35.5	2.3	2.1
Marshall Islands	64.5	4.2	8.2
Nauru	100	2.9	2.9
Niue			0
Palau	68.0	2.1	3.1
Papua New Guinea			4.1
Samoa			1.2
Solomon Islands	13.0	3.4	6.2
Tonga	30.0	0.5	0.8
Tuvalu	43.0	1.7	4.8
Vanuatu	18.0	2.8	7.3

Source: UNDP (1996), SPC (1997)

This pattern of urbanisation creates major problems for Pacific island countries. First, it is occurring so quickly in some countries, particularly the Melanesian countries of Vanuatu, Solomon Islands, Papua New Guinea and Fiji, that it is overwhelming the capacity of urban services. Second, again in Melanesia especially, urban development confronts a difficult meeting point of traditional and modern law, particularly in regard to land tenure and resource management. (Chung and Hill, 2002)

Regardless of the physical form of urbanisation, the phenomenon itself has distinct economic characteristics. Most new jobs are generated in cities and towns, and the urban economies of the Pacific are the major contributors to economic development, diversification, competitiveness, and overall growth.

Furthermore, the contribution of urban centres to national GDP is largely a function of the significantly higher productivity of labour and capital in private sector industry and services. Without the growth of towns and cities, Pacific island countries would have developed far less to date than has been the case (World Bank 2000).

Migration and urban growth are often described as undesirable types of change that can and should be slowed or stopped. But everywhere in the world, this has been found hard to do. More to the point, doing so would be counter-productive. Rather than stopping urbanisation, it should be managed to deliver benefits to the nation as a whole.

The best way to manage urban growth is through well-planned urbanisation and modernisation programs that come to terms with the inevitable growth and set out to adequately accommodate it.

There is no question that the economic and social changes brought about by urbanisation lead to problems as well as opportunities. From the perspective of sustainable urban services, growth in towns and cities is manifest

By developing country standards, urbanisation in the Pacific is not unusual or excessive. Many parts of the world have urbanisation rates of 75% and higher and the biggest Pacific country, Australia, is 89% urbanised. Clearly there is no direct relationship between the degree of urbanisation and the possibility of economic development.

However, as noted by Connell and Lea (1993), urbanisation in the Pacific takes a quite distinctive form, one that is peculiarly based on the rights or non-rights to customary land of different groups of urban residents. Characteristic of Melanesian towns in particular are rapidly growing uncontrolled areas of customary lands on the fringes of towns, and pockets of traditional villages becoming gradually incorporated. Such settlements place huge demands on the poorly developed network of infrastructure services.

as demand for land and housing, environmental degradation, increasing waste disposal problems, and greater demand for better urban services and infrastructure. In short, urbanisation is accompanied by demands for a reasonable quality of urban life.

The major problems facing urban settlements in the Pacific islands, identified by UNDP (1996) include:

- Land shortages and land conflicts under traditional tenure systems;
- Rapidly increasing unplanned settlements combined with inadequate and unaffordable housing;
- Incomplete, inadequate, and failing infrastructure and services;
- Inadequate institutional capacity and human resources.

Land Problems

The majority of land in Pacific island countries is under traditional tenure by indigenous land owners. The proportion of customary land ranges from 40% in Kiribati, 83% in Fiji, 98% in Vanuatu, to 100% in Marshall Islands. Although the proportion of land under government or freehold ownership is higher in urban areas in most countries, the lack of a fully functioning land market is a major constraint to urban development everywhere in the Pacific.

Because access to freehold land is often problematic, informal settlements arise on the fringes and in the interstices of urban areas, where provision of infrastructure is more difficult and more expensive. High densities then compound the difficulties of these locations, making sustainable urban services even more challenging.

Increasing access to urban land is necessary for planned development and environmental

improvement. Attempts have been made to improve land markets, or to substitute for them. One example is Fiji's Native Land Trust Board, which administers leases of customary land. Other countries have dedicated Land Courts, but the experience with these has been mixed. It is not uncommon in some countries for ownership disputes to remain unresolved after decades in modern and traditional land courts.

Unplanned Settlements and Inadequate Housing

Informal settlements often result from these land difficulties, combined with a shortage of adequate and affordable housing, that push people into marginal areas with makeshift materials.

Unplanned (or informal or squatter) settlements are a growing problem, but there are few data to document their extent. One estimate made by the World Bank (1995) for Fiji stated there could be between 30 and 50 unplanned settlements around Suva, a city of about 400,000. There is widespread consensus that perhaps 30% or more of the populations of Honiara in Solomon Islands, Port Vila in Vanuatu, and South Tarawa in Kiribati are in unplanned settlements.

Recent analysis by Chung and Hill (2000) shows that informal settlements in and around urban areas of Vanuatu are formed by long-term residents, with less favourable indicators on a whole range of socio-economic aspects from health to education to employment to poverty. For people in informal settlements, provision of sustainable urban services is their number-one priority.

Due to the informality of such settlements, and the nature of early forms of urbanisation, housing problems can be acute. Housing that was originally developed for circular migration (e.g. "labour lines" of one-room flats for single



young men), is not appropriate for long-term family residences.

In the informal settlements, insecure tenure usually means that plots are not serviced with water, electricity, drainage and sewage and that local authorities have insufficient resources to provide these services. As a result, the process of legalising housing plot leases is too slow to keep up with demand. This further restricts people from investing in better housing.

Environmental problems as a result of poor infrastructure and services are becoming increasingly apparent in urban areas of the Pacific, affecting standards of living and quality of life. Although such problems are common in all developing countries, they are more urgent in the Pacific due to rapid growth and high densities, near-universal dependence on the land and sea for food and livelihoods, negative impacts on water supplies, and increasing vulnerability to disasters.

Infrastructure and Services

Urban infrastructure in Pacific island countries has rarely been considered adequate. Furthermore, in recent years it has become apparent that important services are deteriorating due to inadequate maintenance and insufficient investment to keep up with population and economic growth. The result is urban areas that offer increasingly unreliable and congested services to an increasingly large proportion of the population.

The lack of modern water supplies and sanitation are the most serious deficiencies due to health impacts. Recent outbreaks of cholera in several countries have demonstrated the importance of sanitation and safe water. There is also an urgent need to protect fresh water resources, particularly in atoll environments.

Piped water supplies in many Pacific capitals are extensive but notoriously unreliable and inefficient.

For example, treated water systems cover 95% of the urban population of Suva and 90% of Honiara in formal settlements and industrial areas, but losses approach 50% of total production with consequent drops in pressure and outages in dry periods (World Bank, 1995). Piped water in Tarawa serves two-thirds of the population but comes from shallow lenses and is available only a few hours a day. One of the most famous cases of water problems is that of Majuro in the Marshall Islands, where the airport runway serves as the primary catchment for rainwater that is then treated and piped over 30 kilometers of the atoll, suffering from leaks and illegal connections along its entire length.

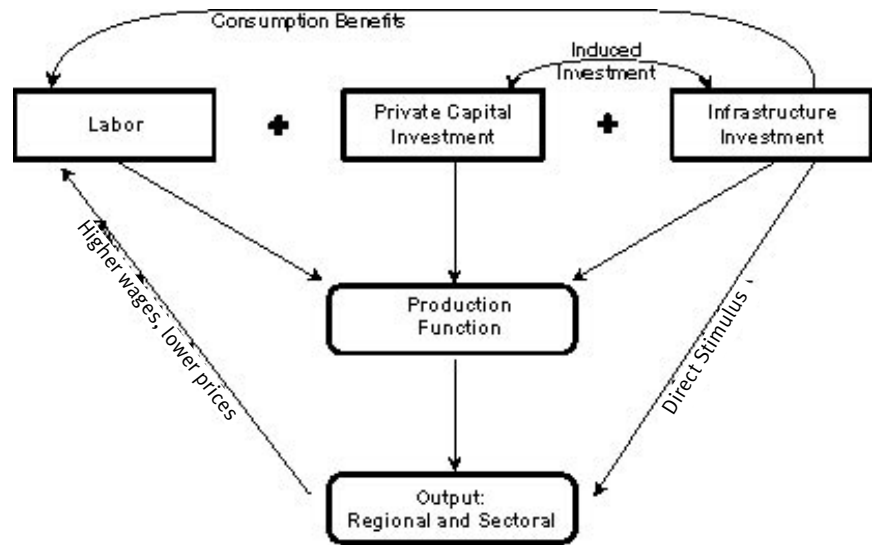
In Fiji, up to 40% of the urban population may be without modern sanitation services, a figure that is probably typical in other Pacific countries. Most urban areas, including some capitals, do not even have treatment plants, and instead dispose of untreated effluent directly to the ocean. This practice causes many environmental and health problems.

The situation with electricity is next on the list, with both environmental effects and serious effects on national finances due to near-universal reliance on diesel-fired generation and. Telecommunications are generally good, if expensive, but organised public transport is nearly non-existent in most places.

The Role of Infrastructure in Urban Development

Urban areas develop because they make increasingly productive use of their resources. Growth enables economies of scale and scope, thereby lowering costs and increasing opportunities. If an urban area performs well, additional private capital and labour will be attracted. It is possible to imagine a virtuous circle, up to a point, where growth begets continuing positive development. Infrastructure and urban services therefore have a very important role to play in urban growth.

Opportunity:
the role of
infrastructure



In traditional infrastructure planning, new facilities are usually provided as a necessary but unproductive service, or to eliminate capacity constraints and congestion. But good facilities and services further lower the costs of production, giving a city or region an advantage. Infrastructure is in fact a resource, like private capital and labour. Better facilities and services promote urban and regional sectoral development by increasing

productivity of those private inputs, lowering costs, and facilitating economies of scale.

Provision of sustainable infrastructure and services is all the more important because of the positive impacts on social and economic development. Table 2 below summarises the range of effects demonstrated from effective provision. (Guild 2000)

Table 2: Socio-economic impacts of infrastructure provision

Impacts on Sectoral Development	Impacts on Social Development
Productivity <ul style="list-style-type: none"> increased output as a result of direct productivity structural and comparative cost changes through improved technology 	Income <ul style="list-style-type: none"> higher wages through input and higher improved productivity direct and multiplier effects of infrastructure construction wages
Complements / substitutes <ul style="list-style-type: none"> reduced costs of production and transactions through complementarity increased productivity of other factors through complementarity 	Access <ul style="list-style-type: none"> access to markets: cheaper inputs, higher output prices, and alternative employment improved health, education, and social services due to better mobility and access
Location <ul style="list-style-type: none"> productive amenities attract firms, consumption amenities attract labour induced private investment through lower costs and higher returns 	Consumption <ul style="list-style-type: none"> consumption value of infrastructure services environmental improvement

Most seriously from the standpoint of national development, inadequate infrastructure makes all other development initiatives less effective. Not only do these deficiencies compound problems in health, education, economic development, and environmental management, they lead to reduced economic and social development because of the synergy between infrastructure, labour, and capital.

Challenges and Solutions

In general terms, formal strategic and spatial planning for urban development and growth is not well provided for in either central or local government administrations in the Pacific. In most island countries, there is no specific or integrating legislation that provides for national oversight or direction on matters of urban infrastructure, housing, policy and/or poverty, and national policy on these matters is indicative only.

Infrastructure planning and financing is usually the responsibility of line ministries within the national government. In some countries, there is a physical planning unit, often in a Ministry of Internal Affairs, responsible for the co-ordination of government responses to local government plan development, building permits and bylaws, but there is usually no defined responsibility for the overall co-ordination of urban infrastructure planning issues. The result is a disconnect between planning for roads, urban services, and land issues with the national planning and finance systems needed to implement them.

But denial and devaluation of urbanisation makes it impossible to cope. Whether considering the issue at the policy, programme, design and construction, financing or technical capacity part of the spectrum, only an integrated approach is likely to successfully redress the growing nature of this problem.

One of the important ingredients to solving issues as complex as these is to make sure that all the different sectors are working to a common end. Many of the regulatory tools necessary for

managing urban and peri-urban development are in place through various regulations and bylaws. However, the human and financial capital and capacity to use these tools effectively -the people, skills, and money- is currently either not available or is not used to best advantage in central and local government.

A Pacific Habitat Agenda?

Given the interdependence of infrastructure and services on the one hand and socio-economic development on the other hand, compounded by the clear difficulties of co-ordination between diverse national and local agencies responsible for provision, it may be time to consider a new push for integrated urban planning in Pacific island countries.

In recognition of the important socio-economic dimensions of urbanisation, the Forum Economic Ministers Meeting held in Apia in July 1999 recommended the development and implementation of a Pacific Habitat Agenda, to address at a regional level the challenges of infrastructure, land and housing, urban management, and regional co-operation.

The idea of a Pacific Habitat Agenda arose in the mid-1990s from the Second United Nations Conference on Human Settlements (Habitat II) and the ESCAP Ministerial Conference on Urbanization in Asia and the Pacific, both of which recommended co-ordinated action to improve urban environments.

The quality of life of all people depends, among other economic, social, environmental and cultural factors, on the physical conditions and spatial characteristics of our villages, towns, and cities. City layout and aesthetics, land-use patterns, population and building densities, transportation and ease of access for all to basic goods, services, and public amenities have a crucial bearing on the liveability of settlements. (Habitat Agenda, United Nations, 1996)

A Pacific version of the Habitat Agenda would recognise that island countries face their own unique circumstances in urban development and can benefit from regional co-operation in planning, policy analysis, and resource mobilisation. The goal is healthier, more productive, and more efficient urban environments in the Pacific.

To support the implementation of the Agenda, a regional Action Plan would be needed to outline a feasible approach to improving urban areas in the Pacific. Such a plan would be based on the priorities and activities of national and regional agencies in urban development region-wide, in the areas of infrastructure, land and housing, urban management, and regional co-operation. It should be consistent with the ESCAP 1993 Ministerial Conference on Urbanization in Asia and the Pacific and the CROP Regional Strategy.

In particular, a Pacific Habitat Agenda and plan would be aimed at enhancing regional coordination and cooperation through:

- Opportunities for social and economic development can be generated through better urban management.
- Cooperative approaches to problem solving are likely to complement national efforts.
- Information sharing within the region can improve national plans and activities.
- Collaboration in regional and international fora can be strengthened.

Conclusion

Integrated urban planning, including urban infrastructure and services, is essential to the future success of Pacific island countries. Towns and cities are the “engine rooms” of all economies, even more so in small and isolated national systems.

UNDP (1996) makes the point that “achievement of sustainable livelihoods in urban settlements... will require Pacific governments and communities

to set clear strategic directions and priorities...”. Furthermore, urbanisation strategies will only be successful if they are tied into national policies on economic reform and environmental management.

As noted by UNDP (1996), urbanisation in the Pacific has resulted from a process of population shifts, rather than from a structural economic transition. In other words, people have moved to towns in hope of future opportunities, as opposed to being attracted to available opportunities.

From an individual perspective this is always true of migration. What is unique about the Pacific is the failure of urban economies to develop opportunities as quickly as populations have grown. Although there are exceptions, the rates of urban population growth experienced in most Pacific countries are not far above reasonably expected rates of economic growth. Therefore, the problems these urban areas are experiencing result as much from a failure of economic development as from migration.

A more positive way to view this is that Pacific towns may simply be at an early stage of urban transition, characterised mainly by population shifts, with the take-off of their economic transition in the near future.

Constraints to the take-off of this economic transition are well known. All Pacific countries face limited domestic revenue generation, a narrow resource base, vulnerability to fluctuations in commodity markets, low levels of private and public investment, small domestic markets, and remoteness. These constraints are not unique to urban areas, as they are also national, but they do make improvement in urban economies more difficult.

The main point is that urban economies are realistically the only potential drivers of national economic growth. The future of the Pacific is urban. The challenge is to make that future both sustainable and productive.

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“Pacifica” - An Average City

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Introduction

The question is often asked of what comprises a **sustainable** city. I'm interested not only in what is merely sustaining our Pacific cities, but also in the factors **constraining** those cities and, indeed, in what is currently **expanding** Pacific cities.

SOPAC has a membership of some 19 Pacific Island Countries and territories encompassing the full width of the Pacific Ocean. Each of these countries has at least one major administrative centre and capital city whose existence is vital for national survival. The area of responsibility covered by these capitals is one-seventh of the Earth's surface, dwarfs Europe and is more than double that of the USA, and almost three times the area of Australia.

The cities of the Pacific lie in one of the world's most severe cyclone belts, and across a zone of some of the highest earthquake risk on the planet, the Pacific Ring of Fire. Incidental to this is an enormous concentration of tsunami, volcano and landslide hazards. This is without considering the continuing climatically driven threats.

Let's look at the average Pacific city – ‘Pacifica’ for want of a name. The development of this average city is restricted by the sea on one side at least, and for some by mountains on the other. Land ownership is contentious -little secure freehold land is available for development. Reclamation has reached the limit and beyond, so that it's modern high-rise buildings are increasingly founded in marginal conditions without the independent confirmation of a national building code.

A conservative estimate states that over 40% of the fresh water supplied to Pacifica is lost before it even reaches the consumer. In the unlikely event that the city even develops a sewerage system, the municipal engineers will be constrained to discharge the sewage, inadequately treated, together with the solid waste, into the near shore marine environment, polluting the local harbour and reefs.

Pacifica is growing at twice the rate of the rural area that supports it, and is bleeding precious foreign reserves for the privilege of polluting sources of power while immersed in an environment of almost unbounded sources of solar, wind and ocean energy.

One-quarter if the population of the nation resides in this major city and this will grow to one-half in the next 30 years at the current rates of growth. In another 30 years again, three-quarters of the nation's population will live in Pacifica.

Two dollars in every three of the national Gross Domestic Product is generated around activities in Pacifica alone. The national income is also heavily reliant on tuna fisheries within the Exclusive Economic Zone, but less than 5% of the value of the catch is realized as access fees. Is known now that distribution of the schools of tuna is very much governed by physical factors including ocean temperature, salinity and currents. The national administration based in the city is responsible for policing this little-understood area of ocean -some 7,000 times larger than the country's land area- with the grossly inadequate means available.



Pacifica faces a 50:50 chance in the average lifetime of its citizens, that a massive earthquake or cyclone will strike and destroy an amount of half or more of the entire nation's annual GDP in a matter of minutes or seconds. The peri-urban communities on marginal coastal land near Pacifica face a significant chance of being wiped off the map by a tsunami or storm surge. The residents of Pacifica, through to its mayor, have little appreciation of the risks facing them, or of the alternatives available.

In its worst manifestation -the atoll conurbation- the Pacific city has a population density amongst the very highest in the world, and draws most of its water supply from a thin sheet of near-surface groundwater floating on a sea of brine, prone to saltwater infiltration from all sides and pollution from above. The residents grow their sustenance in a soil composed almost entirely of a single mineral. The city is disposing raw sewage, pathological and radioactive waste directly onto prime fishing and gathering grounds at the reef edge. The national population -a third of which live in the urban sprawl- are faced with maintaining an EEZ that is 50,000 times larger than its land area with little more than a handful of fishing boats and outboards. Home, at its very highest, is only 4 metres above sea level -a bank of coral rubble thrown up by past storms. These are moored boats, foundered to their gunwales, at the mercy of the ocean.

(1,470 BC) forming a collapse caldera 11 km in diameter and destroying the most prosperous pre-historic settlements of that period, giving rise to the story of the vanished island empire of Atlantis. The city of Rabaul, already in severe disarray after the 1994 eruption, could easily become the new Atlantis of the Pacific.

In 1755, the city of Lisbon was completely devastated by a triple earthquake sourced offshore Portugal and a tsunami 20 minutes later which swept away up to 100,000 people. The scenario could easily fit Port Vila or Honiara.

Between 1845-1851, a minor climate perturbation – a series of unusually warm winters in Ireland – led to a fungus blighting of the potato crop which destroyed the staple food of one-third of Ireland's population. This in turn led to massive migration to the cities and an increase in urban poverty that eventually saw the deaths of a million people from malnutrition, typhus and other diseases, and the emigration of another million people seeking a better life. What would be the effect on the Pacific cities, balanced as they are on the knife-edge of climate change, if a similar blight affected taro or other staples in the Pacific Islands?

Ephesus, at the mouth of the Cayster River on a gulf of the Aegean coast and now within the borders of modern Turkey, was once the second largest city in the Roman Empire and a strategic coastal gateway to the eastern world. It was founded about 800 BC and later housed one of the seven Wonders of the Ancient World, the Greek Temple of Artemis, built around 550 BC. In the time of the Roman emperor Constantine it was a great and busy trade port holding many ships with 250,000 residents. However, as the Cayster silted up the harbour, it was finally abandoned in the 4th Century AD, and is now a swampy backwater with the current shoreline some 5 km distant. On the face of it, the surviving structures, the quality of roadways and public toilets alone would have outstripped those same facilities to be found in any modern Pacific city. However, contemporary writings of Rome's urban planning show overcrowding and poor hygiene were rife,

54 Classic Lessons

History is littered with accounts of cities and civilizations that have proved to be unsustainable. Searching amongst these, there are valuable precedents to be found that might give us the understanding, and the edge, to enable us to sustain life, and improve livelihood and liveability in Pacific cities.

The island of Santorini in the Aegean Sea now remains as part of the rim of a huge volcano that erupted cataclysmically about 3,500 years ago

and tell of insulae or tenement blocks of slums: ‘...shored up with gimcrack, stays and props’ (Green, 1974; Juvenal: Satire III).

Ephesus, although it lasted in its various forms for over a millennium was, like many other cities, not sustainable in the long term. No simple explanation can cover its growth and demise, but perhaps answers can be found within the aforementioned concepts: trade and commerce, strategic location, hygiene, social and cultural diversity, and the natural attributes or vulnerabilities of location.

If we take these historical lessons to heart, we may well conclude that, in the long term, no city is sustainable.

More to the point, and without feeling qualified, or wishing, to add to the volumes already written about the problems of cities, perhaps if we lower our sights slightly our aim should simply be stated as making cities more live-able. God forbid that it should be even lower and our aspirations be limited to mere survival.

Large Ocean Island States

I take a proactive view of the problems facing the sustainability of Pacific cities and unlike Martin Luther King and his professed dream what is needed is a realistic vision based on opportunities. So instead of seeing these Pacific island countries as Small Island Developing States, they can equally be thought of as Large Ocean Island States. Here, the very issues that cause so much angst for SIDS and their capital cities: Isolation; transport; sources of hazards; and issues of the EEZ including trade become, instead, the crowning features in the development path of the LOIS.

In this scenario, I can say with the confidence of past experience that SOPAC is one of the organizations that will be raising awareness of the issues of energy,

water supply and sanitation, pollution, urban drift, marine resources assessment and catastrophic risk and, what is more, will be working with the country in numerous practical projects to address the issues. It will be adopting a risk management process to deal with the problems; first establishing the issues in their Pacific context and cultural setting, identifying the risks to each country, then analyzing and evaluating these risks to eventually provide real and acceptable treatment options.

In fact, within this LOIS framework, SOPAC (with its 30 years of experience) is already developing programs of water supply and sanitation that, project by project, are bringing each member country closer to sustaining its own vital lifelines. Winning materials from the land and sea in a more efficient and environmentally sustainable fashion to help build sea and air ports instead of mining beaches, reef flats & other vulnerable sites. It is also advising on the vulnerability and construction of these ports and the roads and bridges that link them to the cities is no lesser a service to city lifelines. SOPAC is advising on and promoting win-win energy solutions that reduce pollution and plug the drain on foreign reserves. In response to a lack of commitment from WWSD in Johannesburg SOPAC has taken the lead in getting the Pacific Island nations to commit to a target of producing 15% of their primary energy needs from renewables by 2010.

In the oceans of Pacific Island Countries, SOPAC is supporting countries and sister regional organisations to develop policies and practices that see a better return from activities in the EEZ such as fishing, offshore minerals, maraculture, and other income-generating activities that will significantly improve the balance of trade -the economic lifeblood of the Pacific cities. SOPAC is generating programs of work with the tourism authorities on El Niño, coastal erosion, and other related vulnerabilities to ensure that the explosion in this high-income, high-promise activity does not burn out and destroy the very genie that builds it -the pristine environment of the Pacific.



Understanding and Planning for Urban Risk

Quite apart from the very real risk of the nation (and its capital city) being brought to its knees by a major disaster, the Pacific Island Countries are continually oozing lifeblood from a succession of 'bearable' - dare I say, sustainable - disasters. During each year over the past 15 years, UNOCHA figures show that Fiji alone has bled out USD\$17 M, lost 800 dwellings, with 4,000 of its citizens displaced and 6 killed. These figures could be doubled by including the other four smaller Pacific Island Countries on the Ring of Fire, and doubled again by the inclusion of Papua New Guinea.

The combined capital worth of Port Vila city, for example, is AUD\$1 billion. Reconstruction of part of one wing of the Washington Pentagon in the aftermath of the terrorism of September 11th 2002 reportedly cost the same amount. One wonders who, if anyone, would pick up the bill for a devastated Port Vila in the wake of a natural calamity. Considering no one has picked up the bill for the damage following the earthquake earlier this year I don't hold out much hope for an acceptable answer.

As part of the world's lowest-income grouping, we suffer one-fifth of the annual catastrophic loss events and, despite the miniscule value of our possessions, an astounding one-quarter of the world's property losses (only 1% of which loss is insured), as well as a disproportional two-thirds of all fatalities from natural disasters.

SOPAC has been actively expanding its Pacific Cities program since 1995 to evaluate the risks facing the major capitals of the region, and its CHARM (Comprehensive Hazard and Risk Management) program since 2000 to coordinate all aspects of risk management and to develop acceptable solutions based on the assessments of Pacific Cities. There are a number of immediate areas from which the region benefits from advances in urban risk studies, actively promoted by SOPAC projects:

Studies of seismicity and neotectonics, climate and meteorology that have been carried out for several decades now in the Pacific are fundamental to any understanding of disaster risk, particularly as applied in the highly vulnerable capital cities.

Research on soil foundation problems in these cities has received a boost in understanding over the past decade, while at the same time. The institutionalisation of building standards has been receiving much more cross-sectoral attention and promotion.

In recent years, the specific risk to urban population centres has been defined more completely through seismic microzonation studies and, for Port Vila especially, studies of cyclone probability and risk-loss assessment, while.

The risk-management approach that has been introduced to the region even more recently has moved the focus onwards from scientific and engineering outcomes to that of social outcomes and, in conjunction with this.

The need to more closely define and quantify the elements at risk, including building and infrastructure asset assessment, has become more apparent.

Risk financing for catastrophes is a necessary outgrowth of the past decades of earthquake and cyclone studies; having recognised and defined the risk, it is now incumbent on the communities involved to deal with it in an appropriate fashion. These studies have been linked through Community Vulnerability analysis and studies of specific marginal communities at risk to provide socially and culturally acceptable paths leading to solutions and treatment of risk.

Social Constraints

While we can push hard to raise awareness as to how urban infrastructure and planning and urban risk management might be improved, at the heart

of it, as Mumford (1961) implied, the very essence of ‘...building a coherent city out of the efforts of a thousand competing individuals who know no law than their own sweet will...depends on the firm control of public authorities who often do not exist, and if they do, exercise no powers except those specifically granted by the state, which put individual property rights at the top’. Four decades later, research by Mecartney (2000) points up the same social constraints operating today in the marginal communities of Port Vila where a handful of individual landowners can hold whole communities to ransom insofar as the installation of basic and fundamental services such as water supply and sanitation is concerned.

Work in progress by the Pacific Islands Forum Secretariat and ESCAP in the marginal communities of Port Vila show that these settlements are growing more than twice as fast as the rest of Port Vila, and at five times the rural growth figure, and that the overwhelming majority of growth has been in informal housing outside of the control of the authorities.

According to the 1999 Vanuatu National Population and Housing Census, the current population of Port Vila (29,356 inhabitants) is almost six times larger than the 1967 population. Like many of the countries which over the last quarter of a century are just emerging into the bright light of national independence: Fiji in 1970; PNG in 1975; the Solomon Islands in 1978; and Vanuatu in 1980, the shining edifice of national development is crumbling more than just a little at the edges. With civil strife on the rise, consideration of earthquakes often takes a back seat to that of riots.

If we step back far enough, we can see that the current situation in the Pacific cities is part of a changing kaleidoscope: In the short span of 200 years, the rapid growth from a village somewhere on a quiet bay to trading town and port, predicated on a colonial strategy; the Quonset huts, airstrips and wharves of a foreign war finally deteriorating in the tropical climate; a post-independence

surge of optimistic growth; a rush of people from simple country life to poverty in a glittering city; a legacy of ancient social, cultural and planning constraints that inhibit full flowering of the city; and a growing realisation that something now needs to be done to cope with the overwhelming inherited risk that faces neglected, long-term development.

SOPAC is drawing a picture of that something, and choosing the crayons to color it right.



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Urbanisation in Pacific Island Countries

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Urbanisation in Pacific Island countries has reached, over the last few years, a threshold of social and economic visibility and criticality, to the point where it is now a major subject of concern for the governments of these countries. The roots of this concern are not immediately self-evident. The city was the basis of authority and the source of wealth for the first generation of Pacific Island Heads of State, or at least for those who had a capital city that could be an expression of their new institutional capacity. It symbolised control of the interface between the interior and the exterior of the country, the newly centralised position of the national government at the crossroads between diplomacy and commerce. As a result of these two factors, the concept of the city -which as a representation of the “nation”, was difficult for the majority of the ethnic peoples constituting these young “States” to understand-embodied the fundamental means of accession to independence and political development in the early years. The empowerment of the administration, the development of education, the take-over of political and legal institutions, made the city the keystone for nation-building, often to the detriment of other contenders.

In the former colonies, since the State administration preceded the effective existence of a nation, it was necessary to build the nation, the city being the starting point of the process. The hierarchies of the traditional chiefly system and government, often constituted by the colonial authorities to regulate conflict amongst

the natives and to provide an interlocutor for discussion and for giving directives, were often included in the new constitutions, but without being given effective institutional power.

However, although the mechanisms of indigenous authority were nascent in the concept of the city, its development was not given the attention it deserved. Why? Because the majority of the elite who had come to power at the time of independence -and who are still largely in place to this day- retain their rural roots in spite of their Western education and their overseas experience. Their childhoods were often spent in the village. Moreover, they held or inherited traditional chiefly roles. The Fijian *ratu*, and the bigman of Vanuatu, Solomon Islands or Papua New Guinea, are the traditional high chiefs and make up the ranks of the deputies, senators and senior civil servants. Because of this, both their traditional and electoral power-bases are rural. Until recently, the majority of indigenous people lived and worked in the countryside, whereas the intellectual elite, expatriates and other immigrant communities (Indo-Fijians, Europeans, Chinese, Vietnamese, and immigrants from other Pacific Islands) congregated in the cities with their kin.

We therefore find ourselves today in a curious situation: on one hand, the city symbolises newly-found independence, the control of the reins of power of a still virtual nation -legally mandated of course- but alienated from local culture, and

the national majority (in the sense of the parent society). On the other, the city is essentially a collection of minorities -ethnic minorities of former colonists and immigrants, and social minorities of the political and administrative elite- whilst the power bases of the indigenous elite are outside its walls.

As a result, although the city is the seat of power and its means of expression, it is not the place from which power derives its legitimacy; the Pacific Island city forms a locus that remains ambiguous. It can confidently be stated that cities are major economic, commercial and diplomatic components of the mechanism of nation-building that is required by the indigenous elite, but culturally and politically they are of lower significance since they remain a product of the colonisers and are still largely controlled by them, being at home in that milieu. On the contrary: the first generation of the indigenous elite remains strongly attached to the land. In cases where the countryside has financed the growth of the city, as in Fiji, by means of long-term leases which have not been updated, urbanisation has experienced a self-maintaining progression, in spite of the partial return of capital back to the villages through vote-buying campaigns, and credit transfers from city-dwellers to relatives in the countryside. Where financing was more limited, the city grew more slowly, demographically and economically. The colonial trade routes exporting local products and wealth were partly diverted or replaced by exports to the capital city and other urban centres.

A major consequence is that local governments are kept in check by the central authority, which resists effective decentralisation, although devolution to the rural provinces has been initiated (Cook Islands, Vanuatu, Fiji, New Caledonia). Another consequence is that the State provides most of the infrastructural needs of the city whilst the city government deals only with infrastructure maintenance and minor works (street lighting, etc.).

There are two circumstances which oppose these tendencies:

- financial and fiscal crises of national governments which prevent the fulfilment of urban demand, the latter increasing much more quickly than the coping capacity of the stagnant resource bases or the weak economic growth of these countries (the World Bank's notorious "paradox of the Pacific"). These crises have multiple causes, but can be essentially boiled down to one: my hypothesis is that this is due to the fact that the people who are not inherent city-dwellers are the ones who have to govern through a model founded primarily on the polis (based on democracy and parliamentarianism) and its national expression. Neither of these are at the heart of indigenous tradition. The Pacific city is a premature and externally-imposed phenomenon which should have developed, or really needed to develop, through endogenous and more measured processes. Instead of flowering and fruition, we have conflict and collision, with many resultant side-effects.
- the progressive inhabitation of cities by migrants from other islands and rural areas, who acquire urban habits and develop behaviour which is initially hybrid (rural-urban), then increasingly urban, and consequently becomes less and less controllable under traditional law. Admittedly, this spatial and behavioural drift of the countryside towards the city, and this replacement of indigenous by immigrant residents happens slowly but seems inexorable.

Cities have developed to such a level that they compete with the countryside as the base for legitimacy and political power. Their commercial and diplomatic role has been reinforced with the exercise of institutional power. They have stopped being juxtapositions of villages and become integrated agglomerations where rural attitudes gradually deteriorate and dissolve. They also become a source of critical and/or delinquent young rebels, the generators of effective opposition

and more complex networks of interaction. Urban revolts multiply (Port Vila 1998, the military coups in Fiji in 1987 and the mutiny of 2002), shading into civil war (Honiara: the coup of June 2000) or criminality (Port Moresby: the champion in any category of urban violence in the region).

It is useless to say that governments are less and less inclined to yield control, at a time when they are increasingly pushed to do so. What does this signify for the management of urban issues?

It means that major infrastructure building and repair works are increasingly difficult and expensive; they are increasingly overstretched in capacity and effectiveness, and their management becomes as much a problem of perception as of action and decision.

Who does the city belong to? To the elite or to the residents? To those who pay the local taxes or to those who live there without paying taxes? How

autonomous is the city and the local government with respect to the State? What is the status of the city-dweller on the national chess-board? What is his political influence? Does the city ultimately become just a stake in the game of power which merits a specific interest from politicians as opposed to being merely a visible manifestation and validation of their power?

Who maintains its networks (roads, sewers, drains, drinking water, electricity, etc)? Who pays for, and who can use the services that it provides (higher education, hospitals), and who does the infrastructure belong to?

The main purpose of these remarks is to ask whether the specialised, political, institutional, economic, technical, etc., approach should not be supplemented by strategic reflection which considers the evolution of the Pacific Island city on a historical time-scale and within a broader systemic framework. ■





Introductory Remarks

Discussion

To our readers:

Parts of this discussion were not recorded. In italics you will find the essential ideas expressed when the recording failed.

Lye Lin Heng

It appears that one of the main problems preventing the building of the environmental infrastructure is the fact that most lands are held under native titles. Thus, it is difficult to find any suitable land for dump sites, for example. But is it not possible to give the natives fair and adequate compensation for the land, and at the same time, try to help them see why the building of the environmental infrastructure is critical for their own well being and that of their society?

Mr. Guild answered and spoke about land courts, representatives of local interests, land trusts...

Mr. Simpson spoke about a public service in charge of land affairs, about a political approach specific to the Pacific Islands, about what should be done about the land, customary or public. He insisted on the fact that the issue of native titles is extremely sensitive and it is not a question of payment of compensation but that development can be seen as a compensation for the land lost.

Someone from Samoa answered by speaking of urban planning as a way to approach this compensation issue.

Nola Kate Seymoar

In Bangkok, Hong Kong and Santiago, we saw that in developing countries there are processes that involve different categories of population, the poor, the women... and which use adapted and local techniques. The strategies that are used here, in those situations, really seem to me to be different than the strategies usually used by large private sector companies, wanting to put

in large infrastructure projects. I am curious, because most of your challenges in fact suggest that you are not doing the same kind of large-scale projects in this area that you might be doing elsewhere in the world.

Jacques Bret

For water and sewage treatment plant, if we are working in a seismic zone, we give specific technical calculations for the plants. For the pipes, we have not. I don't know why, perhaps somebody knows something in the room here, but I do not know if it is some special system avoiding a risk on the pipe, I do not think so. But for land tenure, we are using more and more trench less techniques, to avoid opening something in some people's land and elsewhere, we are using trench less or tunnel technology to avoid to break historical sites. For example, it is not the purpose here, but in Morocco, in Tangiers, where the Old City is classified by UNESCO; we are doing a tunnel for sewerage collection, which crosses under the Old City without destroying anything. This is what we can do. For a pipe, we cannot do anything. I do not think so.

Peni Gavidì

I would like to raise a point in regard to Doctor Guild's comment on urbanization.

I share many of the comments that you have raised. The positive effects of organization versus the past negative effects. We know that we are living in an economic situation where export oriented is more emphasized which is export-oriented and globalized. If you compare that thinking with that of the politicians of the South Pacific, they are not promoting that. They seem to think that the people in the Pacific should not come to the city and I have read that Mr. Schumacher has come back to lead. I do not

know why they still maintain their point of view, the same point of view he had 20 years ago, because it is no longer relevant. How can we sell this idea to the politicians of the South Pacific so that they come back to reality? There are so many positive effects of urbanization, in terms of contribution to the national wealth. Can you tell me how to sell the idea?

Robert Guild

That is certainly one of the big questions and I thank you for raising it. The easy answer I suppose is that it is the job of the people in this room, who understand these things, to sell these ideas. When you understand that urbanization is a positive force, then that becomes part of what you do on a regular basis. But the reason why it is, is a difficult thing to sell, I think. It is a harder question. For two reasons.

First of all, politicians are working on an outdated national self-image and in some cases, they even pander to it. People in the Pacific Islands think of themselves as simple-world people, even when, in the case of Fiji for example, probably 60 to 65 % of the country lives in urban areas. And that is the future for Fiji and many other countries.

Secondly, urbanization, as I have alluded to, is blamed for evils, for creating poverty. We often read that it is blamed for social pathologies, for street kids, and rascals and all sort of things. I think urbanization simply makes visible what already exists at a national level. You cannot blame cities for creating poor people, what you do is that you concentrate poor people who did not have opportunities in the rural areas or who thought that they have better opportunities in the urban areas, and they turn out to be wrong about that. That is not the fault of urbanization, that is the fault of national economy that is not keeping up, and that is how I would go about answering. But I think there are many more subtleties and other ways to approach and that would be worth talking about further.

Chris Kissling

My question is focusing on health issues. When we bundle populations together in one location,

are we raising the risks of infectious diseases or are we providing a situation where it might be easier to control. I am no medical health expert at all. But here we have a dispersed population. Is that less risks or greater risks for epidemic diseases such as AIDS or something like that.

Alf Simpson

My views are influenced by the fact that I am a geologist. We need to address both of your questions. And the social side is but one aspect. What I am pushing for is the physical understanding, the understanding of the carrying capacity of these areas that we want to keep building on. Knowing just how much can they take, how much can we stretch the “rubber band” before it snaps.

With regard to the growing social impact there is eventually a physical impact. And of course, we are talking of a lot of things. We have examples in the Pacific: the island such as Ebye in the Marshall Islands, closely linked to a large US base. And I think that for Ebye the population is close to 32 000 people per square kilometre. Then there is South Tarawa, the capital of Kiribati has about 6,000 people per square kilometre. It just gives you an idea of the probable social impact when you compare it with Tokyo, Japan, where there are about 5,500 people per square kilometre. But what we do not understand in a lot of these places is that we talk about the Pacific small islands being fragile, being vulnerable, but what does that really mean? How do we quantify this? What is the carrying capacity of these environments?

Urbanization is fine, you have everybody together, you can control them, you can provide central services and whatever else, but the issue is we do not take account of what happens when we have a catastrophe. We are in an extremely highly vulnerable region of the world, we are in the highest zone of risks, but people do not seem to understand this. We build, we have the best development plans, but none of this within a total risk managing approach that takes account for

what happens when we have a disaster. Whether it is a health disaster, or a physical disaster, a tsunami, or an earthquake. Lets look at Port Vila. – we recently had an earthquake, we could have had a devastating tsunami, but luckily there's a God that looks after Vanuatu, and we had the tsunami at the lowest possible tide for the year. Had it been a few hours later, we would have had 6 meters of water in Port Vila city, but this time they were lucky. Lots of physical damages that happened to Port Vila are still there today, nobody has stepped in to try and help them and the country. Obviously their own economy is unable to cope with the cost of the damage. And this happens regularly throughout the Pacific. We all live with this false sense of hope. We hope that the disaster will not happen. We hope that these epidemics you talked about will not happen, and we continue to grow, and we continue to pollute, and we continue to destroy the very environmental goose that is supposedly laying the economic golden egg. Now everybody in the Pacific is rubbing their hands with glee. There have been security problems in Bali, so it is thought that the tourists will come to the Pacific. Some think it is a blessing for the Pacific but if it did happen we do not know what is the carrying capacity of our tourist resorts in the Pacific. Can we take the doubling of tourists polluting and providing grey water and sewerage and whatever else? We do not know. We already have an example of such a situation. Fiji had a "coup" in 2000, and they all went to the Samoa or to the Cook Islands, and of course the Cook Islands may have had problems because they might have exceeded the small fragile environment's carrying capacity. The nice pristine environment becomes threatened, and this continues and we just live hoping that we do not have a disaster... This is not what sustainable cities should be about.

Geneviève Dubois-Taine

But is it definitely a disaster or are there ways to manage that?

Chris Kissling

Could you focus on my question really? From a

medical point of view, if we need to get messages across, and teach people about risks and risk management, is it easy to do that when you concentrate people in a city, in one environment?

Robert Guild

I want to answer your question by way of examples. I used to live in Solomon Islands, and the people there divide themselves into "bush people" and "salt water people". They tell the story that before Europeans came, everybody in Solomon Islands lived in the bush, and there were no villages on the salt water with the exception of Langalang lagoon. Now, almost everybody in Solomon Islands is a salt-water person, and the reason they came to live along the coast is because the missionaries brought schools and clinics and that was the genesis of large salt-water villages in Solomon Islands. I am quite sure that given the dispersed population, particularly on the high islands of the Pacific, concentration is the only way to deliver services, particularly given the limited resources. Having said that, we need to be extremely careful not to make things worse by providing inadequate services, for example sanitation, and crowding people in the informal settlements with absolutely no drainage at all, and allowing malaria and cholera to spread. We have seen some examples of that in the last couple of years, in the Pacific as well, and that's the role for sustainable services: to make sure that as people concentrate, we do not actually make it worse. ■