

# The Bipolar Pacific

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Australians have become accustomed to bad news from the Pacific islands. Conflict in the Solomon Islands, coups in Fiji, murders by *raskol* gangs in Papua New Guinea, and the burning of Chinatown in Nukulofa in Tonga indicate an 'arc of instability' at our doorstep. But there appear to be two Pacifics. One group of islands has managed to grow, if not at the speed of East Asian economies, at least modestly. It includes the Cook Islands, French Polynesia, Guam, New Caledonia, Samoa, Tonga and others, that have reasonable education and health with modest socioeconomic outcomes for their peoples.

A second group of islands, including Fiji, Papua New Guinea, Solomon Islands and Vanuatu, have stagnated at best. In some cases, they have become poorer. In these islands, governments are largely absent from the day-to-day lives of individuals. For most families, this means no electricity, no running water, no sanitation, and little healthcare. For women, it means giving birth without medical attention. Many villages lack institutions of law and order, and receive scant attention from political elites, who squander public revenues.

The problem for the region, and hence for Australia, is that the second group of countries includes the largest, most populous islands. About 80% of the Pacific's population is found in the low-growth group of islands, where employment is rare and living standards are not rising. High mineral and timber incomes have not translated to better services or economic growth.

The Pacific is thus bipolar.

The two groups of islands display markedly different demographic characteristics and different employment, social, and educational outcomes. Whereas one group of islands has moderate population growth and reasonable education, the other experiences some of the highest population growth rates in the world and high levels of illiteracy.

Women's work in gardens has to date managed to keep up food supplies to growing populations, but land shortages are becoming evident at the margin. With little employment in the formal or informal sector, nearly two million unemployed and underemployed men will reach middle age without ever having had an income or experience of work. Nearly 100,000 young men are being added to this number annually. Underemployment and unemployment are the principal causes of high crime levels and political instability. Unless the major Pacific islands reform their economic policies to create agricultural opportunities and overall growth, millions of young men will continue to idle in villages and the region's capital cities, bored and frustrated. It is not surprising that the Pacific's labour market problems are creating spillover effects on a scale that proposed 'guest worker' schemes cannot abate.

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# The Bipolar Pacific

## Introduction

The Pacific's development since independence some 30 years ago has been bipolar. French Polynesia and New Caledonia (both French territories) and islands in association with the United States and New Zealand have traded political independence for growth. With high emigration, in Tonga and Samoa income has also forged ahead of population. Papua New Guinea and the Solomon Islands, despite their relatively large landmass and rich natural endowments, have at best stagnated. Fiji, another large state, appeared to be on a growth path until a series of political coups disrupted its economy. Vanuatu has been struggling for most of its post-independence period, and recent growth has been confined to the capital, Port Vila. Nauru, initially extremely mineral-rich, has squandered its income to the point of bankruptcy. The Pacific islands have received high aid flows, but the principal effect of aid has been to avoid the adoption of policies necessary for growth.<sup>1</sup>

Modest growth has followed where modestly effective government policies have led to the maintenance and improvement of physical and social infrastructure. In the islands associated with the United States and New Zealand, and in Tonga and Samoa, a 'virtuous circle' of emigration has encouraged educational achievement and returned remittances to the islands. These have often been used for further investment in education. Samoa's economic reforms in the late 1990s accelerated growth. From Auckland, emigrants have led the pro-democracy movement's pressure for economic reforms in Tonga. In marked contrast, imprudent economic policies in Papua New Guinea and the Solomon Islands stalled development. Although macroeconomic stability had been achieved in most of the islands by the 2000s, revenues from minerals and timber have still not been invested in physical or social infrastructure. Vanuatu and Nauru became enmeshed in money laundering. Egregious corruption in government has led to civil unrest and crime, discouraging job-creating private enterprise. Port Moresby has become one of the most violent cities in the world. Anti-Chinese riots have erupted in Tonga and the Solomon Islands. Coup has followed coup in Fiji.

This paper outlines the socioeconomic consequences of post-independence development in the Pacific. It begins with an overview of demographic trends and then discusses health and education as factors in development and as social indicators. The principal focus of the paper is on labour-market trends. The implications for emigration from the Pacific conclude the paper.

## Demographic trends and health

Demographic and social data in the Pacific are sparse and unreliable, as the many empty cells in the following tables attest. The data must be treated with considerable caution. Statistical offices have been starved of funding and staff, and are not up to the task required of them. In spite of the enormous volume of rhetoric devoted to the UN's Millennium Development Goals,<sup>2</sup> aid donors' interest in reliable social indicators has at best been desultory. Pacific data dried up in the mid-1990s.<sup>3</sup>

The rise in population numbers in most Pacific islands is, however, incontrovertible, with total population doubling from some 4 million in 1975 to more than 8 million in 2008 (see table 1). Population increases have ranged from barely perceptible rises in islands of emigration such as the Cook Islands and Tonga to growth rates that have been among the highest in the world in Papua New Guinea and the Solomon Islands.

Longevity in the Pacific began to rise in the colonial period, with a reduction of violence in most islands, improvements in nutrition and hygiene associated with the growth of markets and cash cropping, and some public health measures, notably the immunisation of children. Health and longevity outcomes in the Pacific since 1975—as elsewhere in the world—have been determined by three principal factors. The most important of these have been standards of living as reflected in nutrition, housing, and personal hygiene. The

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second consist of policies that determine public health, that is, the supply of drinking water, power, sanitation, immunisation and education, particularly of girls. The third is the quality and availability of clinical medical services.

**Table 1:** Populations of Pacific states and territories 1975 and 2008

	1975	2008	Implicit average population increase 1975–2008 (%)
Papua New Guinea	2,900,000	6,000,000	2.2
Fiji	580,000	850,000	1.2
Solomon Islands	190,000	490,000	2.9
French Polynesia	100,000	260,000	2.9
New Caledonia	133,000	240,000	1.8
Vanuatu	100,000	220,000	2.4
Samoa	150,000	190,000	0.7
Micronesia	63,100	107,800	1.6
Tonga	92,000	116,900	0.7
Kiribati	53,100	107,900	2.2
Northern Mariana Islands	15,000	84,500	5.4
Marshall Islands	26,000	61,800	2.7
American Samoa	40,000	57,600	1.1
Cook Islands	20,000	21,800	0.3
Palau	12,500	20,800	1.6
Wallis and Fortuna	10,000	16,300	1.5
Nauru	6,000	13,500	2.5
Tuvalu	6,000	12,000	2.1
Niue	2,000	1,600	-0.7
Norfolk Island	1,000	2,114	2.3
Tokelau	2,000	1,400	-1.1
<b>Total Pacific</b>	<b>4,501,700</b>	<b>8,876,014</b>	<b>2.1</b>
Australia*	13,900,000	20,500,000	1.2
New Zealand*	3,000,000	4,100,000	1.0

**Source:** IMF, and authors' estimates<sup>4</sup>

In French Polynesia and New Caledonia, in the islands in association with the United States and New Zealand, in Tonga and Samoa, and amongst Fiji's Indians, health indicators have improved markedly and population growth has slowed as these islands embarked on the demographic transition from high death and birth rates to lower fertility and death rates.

In the islands associated with the United States and New Zealand, and in Tonga and Samoa, substantial emigration has also reduced population growth. But emigration has also had a negative impact on longevity by introducing 'diseases of affluence'—heart disease, diabetes, and obesity—as diets changed because of reliance on remittance incomes. The remittance islands—Tonga, Samoa, Cook Islands, and the islands associated with the United States—have a particularly high incidence of diabetes. Families became able to buy packaged goods and drinks rather than rely on garden produce. Many people became less active. Nauru's has been the most acute experience of the diseases of affluence, with mineral incomes leading to the neglect of fishing and gardening followed by high levels

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of diabetes, heart disease, and alcoholism. The United Nations has accordingly become concerned with obesity in the Pacific while still pursuing its Millennium Development Goals. Overall life expectancy is still consequently some ten years less in these islands than in Australia and New Zealand (see table 2).

Papua New Guinea, the Solomon Islands, and Vanuatu continued to experience high population growth of more than 3% after independence, and population is still said to be growing at more than 2% annually. This reflects high fertility rates, but also falling death rates, particularly of children. Women have been able to increase the output of gardens to maintain food supplies in spite of population growth. Cash cropping enabled some families to buy canned fish and meat to offset declines in hunting, and to purchase other food supplements and items such as soap and detergent as knowledge of hygiene improved. Immunisation programs continued after independence.

**Table 2:** Demographic indicators

	Life expectancy (years)		Fertility rates (births per woman)		Population growth (%)	Infant mortality (deaths per 1000 births)	
	1975	Most recent	1975	Most recent	Most recent	1975	most recent
Papua New Guinea	47	56	6	4	2	97	55
Fiji	63	68	4	3	1	41	16
Solomon Islands	58	63	7	4	2	55	24
French Polynesia	63	76	4	2	1		8
New Caledonia	66	75	3	2	2		7
Vanuatu	57	69	6	4	2	92	31
Samoa	63	71	6	4	0	64	24
Micronesia	65	68	6	4	1	50	34
Tonga	67	73	6	3	0	36	20
Kiribati	52	63	5	4	2	65	48
Northern Mariana Islands		76		1	2.5		7
Marshall Islands	72	65	6	4	3	63	51
American Samoa		76		3	0		9
Cook Islands				3	0		
Palau		71		3	1	27	10
Wallis and Futuna							
Nauru		63		3	2		10
Tuvalu		69		3	2		19
Niue					0		
Norfolk Island					0		
Tokelau					0		
Australia	73	81	2	2	1	14	5
New Zealand	72	80	2	2	1	16	5

**Source:** CIA and World Bank<sup>5</sup>

Low-growth, low-income Pacific islands are still characterised by ailments associated with poor and crowded housing; notably tuberculosis and respiratory and diarrhoeal infectious diseases. Respiratory diseases such as influenza and pneumonia are major risks

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because of crowded and minimal housing. Open fires in dwellings usually lack chimneys, so, when it is cold and wet, exhausts from cooking fires aggravate chest catarrhs. Infants and young children are particularly susceptible to these diseases, so infant and child mortality continue to be very high. The lack of sanitation facilities in rural schools also spreads such infections. Women still bear high numbers of children in primitive conditions in the bush, so birth complications can kill a mother and child.

Nauru's poor policies placed it in the group of low-income, low-growth islands with one of the shortest life expectancies in the Pacific, despite its great mineral wealth. Papua New Guinea still has one of the highest maternal mortality rates in the world.<sup>6</sup> In Papua New Guinea, moreover, an HIV/AIDS epidemic has reduced life expectancy.

**Table 3:** Health indicators 1980 and 2006

	Infant immunisation (%)		Hospital beds per 1000 people		Incidents of tuberculosis per 100,000 people		Health expenditure per capita (US\$)
	1980	2006	1980	2006	1990	2006	2006
Papua New Guinea	32	61	5.5	2.6	250	250	34
Fiji	68	75	2.6	4.0	42	23	148
Solomon Islands	46	80	5.7	1.9	292	142	35
Vanuatu	22	66	6.2	3.1	94	60	58
Samoa	29	64	4.5	3.3	32	20	109
Micronesia	57	94	3.5	3.1	188	105	156
Tonga	40	99	3.4	3.2	34	25	117
Australia	33	92	12.3	7.4	7	6	3,123
New Zealand	76	89	10.2	6.1	10	9	2,040

**Source:** World Bank<sup>7</sup>

Public health policy differences are reflected in infrastructure such as access to water, sanitation, and power (to boil water and cook food), which has scarcely penetrated into rural areas in most of the Pacific. Small outlying islands are often poorly serviced even in relatively high-income countries and territories. Wallis and Futuna has much lower service levels than the other French territories. In the highlands of Papua New Guinea, men and women still have to fetch water laboriously from rivers in deep valleys every day. Many shantytowns lack running water, sanitation, and power.<sup>8</sup> The coverage of immunisation for children has stalled in Papua New Guinea and Vanuatu (see table 3).

The abatement of malaria begun in the colonial years continued in Papua New Guinea and the Solomon Islands after independence. But by the 1990s, these favourable trends had plateaued. Malaria returned virulently because of the lack of public health control measures to control it. Civil unrest in the Solomon Islands also led to a resurgence of malaria infections. In 1997, malaria cases affected 75 per 1,000 people. In 1999, cases had risen to 199 per 1,000 people—almost 20% of the population. A doctor noted that 'malaria sufferers get sick, get over it and then weeks or months later, get sick again.'<sup>9</sup> In Vanuatu, biological controls have been attempted without success. In the Solomon Islands, spraying with DDT and chloroquine has resulted in insect resistance to sprays. Anti-malaria medication and vaccines favored by non-government organisations in the Pacific have not proved successful.

Successful malaria eradication in Singapore, urban Malaysia, and Thailand has been associated with rapid economic development. In fact, worldwide this has proved the only means of eradicating mosquito-borne diseases.<sup>10</sup> Solomon Islands now has perhaps

the highest rates of malaria infection in the world, and malaria is also rampant in Papua New Guinea.

Medical services have improved in the islands, with modest growth and rising per-capita income, though they are still inferior to those of Australia and New Zealand. The number of hospital beds needed per 1,000 people has been falling because of medical improvements, leading to shorter hospital stays, but even the relatively well-served Pacific islands still have only half the ratio of beds in Australia and New Zealand.

In the low-growth islands, the state of medical services is dire. In Papua New Guinea, the Solomon Islands, and Vanuatu hospital bed coverage has been falling. The decline in health posts in rural areas in countries with stagnating economies has been an even bigger problem.

The current rural health situation has been years in the making. A 1988 study of Papua New Guinea found that only 36% of rural health centres had running water inside the building, 40% of child clinics did not have refrigeration, and 13% of wards in hospitals were unsanitary, with many needing maintenance.<sup>11</sup> In 1993, Jane Thomason wrote that 'improvements are attainable through simple and inexpensive means; the only obstacle is lack of commitment by relevant national and provincial government authorities.'<sup>12</sup> In the 1980s, most Papua New Guineans lived four hours' walk from an aid post. Now it is more likely to be four days of walking or travel by boat, because rural health has collapsed.<sup>13</sup> The entire province of East Sepik, which has a high incidence of malaria, is serviced by only one hospital. Churches operate most surviving health posts. Mines also care for their workers and their families. Most of the health posts critiqued in the 1990s no longer exist, although it has been widely acknowledged that the failure of medical services has contributed to low economic growth rates.<sup>14</sup> A recent report by Transparency International has confirmed the tragic consequences of high levels of corruption for Papua New Guinea's health system.<sup>15</sup>

Doctors are few and indigenous doctors even fewer.<sup>16</sup> Papua New Guinea has a total of 275 doctors, or five doctors per 100,000 people. Most are in Port Moresby, Lae, and the other principal towns, leaving most of the population without access to doctors. In most rural areas of these low-growth islands, medicines as simple as analgesics, let alone more complex drugs, are simply not available. Nor is attention for broken limbs, ulcers and sores, or more serious infections. Most Papua New Guineans in rural areas are not aware that free medicines are supposed to be available at aid posts. Before being pushed out as Treasurer, Bart Philemon agreed that 'since independence in 1975 no infrastructure development has taken place ... What they had was left over since independence: administrative buildings, health centres, schools, public servants' accommodation.'<sup>17</sup>

Quantitative statistics do not give any indication of the actual deficit of medical care, particularly in rural areas that have not been affected by development. Most rural hospitals are short of equipment, medical supplies such as bandages, and dressings and medicines. Doctors often have to obtain medical supplies privately from unofficial international donors. Some illicitly sell medicines when they are paid low salaries or not paid at all.

With poor power supplies, hospitals are dependent on emergency generators. Like other hospital equipment, these are often not maintained. Frequently, they have been stolen before they have been installed. If power fails while a patient is on an operating table, surgeons have to proceed by candlelight. In Kundiawa Hospital in the Papua New Guinea Highlands, syringes are so scarce during the rainy season that they are typically reused, because supplies cannot pass the flooded highway.

After volunteer workers repaired a generator that had been left behind by a Regional Assistance Mission to the Solomon Islands (RAMSI) taskforce on a remote island, and linked it to the islands' hospital, the bureaucrats in Honiara could not find the funds to supply it with fuel. The hospital's small refrigerating unit kept breaking down, damaging drug supplies. Lanterns had to be relied on for light. Without proper sterilising capacity, the hospitals' everyday operations were a nightmare. The millions of aid dollars intended for health appear to have had little impact.

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**HIV/AIDS**

Papua New Guinea has an HIV/AIDS epidemic of African proportions. HIV/AIDS cases have appeared in most of the other Pacific islands, with high tourism rates being blamed in French Polynesia and New Caledonia. But Papua New Guinea is now thought to account for an overwhelming majority of the HIV cases estimated to be present in the region.<sup>18</sup> Several official reports suggest an infection rate of about 2% in Papua New Guinea, equivalent to about 64,000 infections,<sup>19</sup> but unofficial estimates range much higher.<sup>20</sup>

Accurate HIV/AIDS reporting is inherently difficult, because HIV takes time to develop into AIDS, when symptoms appear. Information about transmission patterns and levels of infection usually refers to infections contracted five to ten years previously. In Papua New Guinea, the absence of health posts that reach into rural communities with diagnostic services has prevented measurement of the incidence of HIV/AIDS.

Geoff Clark, the World Health Organisation's (WHO's) human resources officer for nursing in Papua New Guinea, believed that estimates of a 1.5% to 2.5% incidence of HIV/AIDS are far too low.<sup>21</sup> The WHO reported a 2% infection rate in antenatal clinics, and an 18% rate among patients at the Port Moresby General Hospital.<sup>22</sup> It is estimated that 50% of all patients in medical and tuberculosis wards in Port Moresby are there due to their AIDS illnesses.<sup>23</sup> At Kundiawa Hospital, doctors estimated that confirmed cases were about 3%, but suspected that the incidence could be double that in the local population. AusAID estimates that 64,000 people, about 2% of the population, are now HIV-positive.<sup>24</sup>

The HIV/AIDS epidemic in Papua New Guinea is also 'African' in being spread through heterosexual contact. Men drifting to towns and traveling along highways sleep with infected prostitutes and pass the virus to their wives when they return home. Because information and education about HIV/AIDS has been limited, particularly in rural areas, posters are widely misunderstood. Men's aversion to the use of condoms is the major cause of the rapid spread of the disease. Myths that HIV/AIDS can be cured by intercourse with virgins abound, so the rape of very young girls has increased. Women, moreover, are being blamed for the spread of HIV/AIDS, in extreme cases in association with witchcraft, with cruel consequences. Families have refused to acknowledge babies born with HIV in Port Moresby General Hospital.

Papua New Guinea has received considerable volumes of aid funding and technical assistance to deal with the HIV epidemic, from bilateral and multilateral donors. Non-government organisations, including the Bill and Melinda Gates Foundation, Australian branches of international non-government organisations, and Australian business have all contributed. There is no lack of expatriates attempting to intervene. The results of all these efforts have been minimal, because without adequate data and health delivery, there can be no prevention or treatment.

The absence of medical services condemns those infected with HIV/AIDS to early death. The Catholic church, the largest provider of healthcare in Papua New Guinea,<sup>25</sup> has become involved in HIV/AIDS treatment. Its Shalom centers, originally created for the medical needs of women, have expanded to care for both sexes.<sup>26</sup> As the Catholic church has become increasingly concerned with HIV/AIDS, it has provided specialised training for health workers and increased health facilities in areas with high HIV/AIDS rates. Voluntary testing and AIDS-care centres have been established at Shalom House, Banz; Mingende Rural Hospital; Southern Highlands Clinic, Mendi; St Mary's Medical Centre, Boroko; and Hohola Urban Clinic. These are also attempting to limit mother-to-child HIV infection. Other churches also provide health facilities. But all these together are woefully inadequate for Papua New Guinea's infection rates. Less than 500 men and women are receiving retroviral treatment.

Estimates of increases in infections are frightening. In 1995, only around 300 people had been diagnosed with HIV/AIDS. The virus spreads rapidly because people are most infectious when recently infected and showing no symptoms. AusAID has estimated that over 500,000 people will be living with HIV/AIDS in Papua New Guinea by 2025.<sup>27</sup> It



has even been suggested that AIDS could kill more than a third of the adult population in Papua New Guinea within 20 years.<sup>28</sup>

The Centre for International Economics prepared ‘low,’ ‘middle,’ and ‘high’ scenarios to illustrate the likely evolution of HIV/AIDS in Papua New Guinea, using infection and death rates from Kenya (low), Zimbabwe (middle), and South Africa (high), because Papua New Guinea’s HIV/AIDS infections are following African trends.<sup>29</sup>

**Table 4:** Papua New Guinea HIV/AIDS incidence and death scenarios to 2020

	Low scenario		Middle scenario		High scenario	
	Incidence	Death	Incidence	Death	Incidence	Death
2006	2.9 %	5,536	11.6%	42,921	11.6%	45,479
2010	6.5%	11,094	18.0%	54,131	18.0%	58,419
2020	8.0%	45,647	19.0%	98,928	25.0%	124,070

**Source:** Jorari and Lasia, Gregson and others.<sup>30</sup>

The current HIV/AIDS trend suggests that the ‘high’ scenario will occur if health policies do not improve.

### Education

Education and training—investment in human capital—has long been acknowledged as a key factor in economic growth as well as being essential to social and political development. Poor educational outcomes result in low political achievement and instability, and are a major cause of economic stagnation.

Primary-school education cannot be measured by the almost 100 % attendance figures that almost all Pacific islands claim; it must take into account the quality and content of schooling—the degree to which school graduates grasp literacy, numeracy, and other fields of knowledge. Secondary-school enrolment figures give some indication of educational levels, but they must also be treated with considerable caution. Literacy data seem to be highly unreliable for Papua New Guinea and Vanuatu, where actual literacy is considered to be close to 20%.<sup>31</sup> Literacy is also thought to be far from universal for ethnic Fijians. So, although the United Nations Millennium Goal of enrolling every child in primary school appears to have been met in the Pacific to the satisfaction of the United Nations and associated agencies, for many children this is a cruel deception.

An island-by-island survey of education suggests a sharp distinction between islands that have made some effort in education and those that have neglected it. Consequently, thirty years after many former colonies achieved independence, the Pacific is sharply divided between islands that are functionally literate and those that remain basically illiterate.

The United States followed Japan’s pre-World War I policies in establishing widespread primary education in the Micronesian islands and American Samoa in the 1930s, raised primary-school standards after World War II, began to introduce secondary schools in the 1960s, and followed with community colleges in the 1990s. This structure of education has enabled students to access vocational training in the islands, and some students and emigrants have been able to proceed to tertiary education in the United States.

In French Polynesia and New Caledonia, teaching French begins in preschools. A universal French public primary-school system grew from small beginnings after World War II, with selective secondary lycees that qualified students for French universities. More widespread junior secondary schools and vocational institutions expanded from the 1980s. Educational standards were set by the adoption of metropolitan France’s curriculums, and by a core of metropolitan French teachers who taught the same curriculums whether they were in Paris or Noumea. Lycee graduates could then seamlessly enter the Sorbonne or other French universities. France also maintains French primary schools and a French lycee in Vanuatu’s capital, Port Vila. Wallis and Futuna do not have the same levels of education. There, exceptional students are sent to French Polynesia or New Caledonia.

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**Table 5:** Education indicators, most recent year

	Adult literacy rate (%)		Primary school enrolments (%)		Secondary school enrolment (%)	
	Male	Female	Male	Female	Male	Female
Papua New Guinea	63	51	80	70	29	23
Fiji	96	92	107	105	85	91
Solomon Islands	77		99	94	32	27
French Polynesia	98	98				
New Caledonia	97	95				
Vanuatu	74		120	116	44	38
Samoa	99	98	100	100	76	85
Micronesia	91	88	116	113	83	88
Tonga	99	99	118	112	94	102
Kiribati			111	113	82	93
Northern Mariana Islands	97	96				
Marshall Islands	94	94	105	100	75	78
American Samoa	98	97				
Cook Islands	95					
Palau	93	90	110	100	97	105
Wallis and Futuna	50	50				
Nauru						
Tuvalu						
Niue	95					
Norfolk Island						
Tokelau						
Australia	99	99	148	104	144	151
New Zealand	99	99	102	102	127	119

**Source:** CIA, World Bank<sup>32</sup>

In the islands associated with New Zealand—the Cook Islands, Niue, and Tokelau, public primary schools provide basic education in literacy and numeracy.

Tonga and Samoa have preschools, and their public primary-school systems grew out of the church schools of colonial times, offering tuition in the vernacular and in English. By the 2000s, literate and numerate entrants were moving into public and private (Christian) secondary schools where the language of instruction was English, producing bilingual graduates ready for employment, further training, or tertiary education at home or abroad. Genuine bilingual education was driven by emigration, with employment opportunities and incomes abroad clearly linked to levels of schooling. Many Tongans and Samoans have gone on to colleges in the United States and then to skilled and well-paid jobs. Australia's points-based immigration assessment system also favours educated immigrants who speak English. Civil institutions, political discourse, and economic productivity of Tonga and Samoa have also benefited.

The demand for education in Tuvalu and Kiribati has been influenced by the islands' histories of supplying sailors for international vessels. Both Kiribati and Tuvalu have some private and community-run preschools. Kiribati has compulsory education to the age of 14. Christian private schools there play an important role in primary education, and an even more important role in secondary education, where they account for 77% of students.

Most of the permanently inhabited islands now have primary and secondary schools. The Kiribati Marine Training Centre and the Kiribati Fisheries Training Centre provide post-secondary training, and there are also facilities for training teachers, nurses, and police in Tarawa.<sup>33</sup> Tuvalu has nine public primary schools on the principal occupied islands, and a private Seventh Day Adventist primary school that has a long waiting list. Primary schools have eight years of classes. Motufuoa Co-educational Boarding High School is the only high school. Its students sit for the Fiji Certificate to graduate, but pass rates in this examination have been falling (to 13% in 2001).<sup>34</sup> Parents who can afford it send their children abroad for secondary education. Tuvalu has a Maritime Training Institute, which has some 200 applicants annually for 60 places in its 12-month seamanship courses: these guarantee international employment.<sup>35</sup> Tuvalu's underemployment and unemployment problems could be alleviated by increasing the institute's capacity.

Economic size is clearly not the principal determinant of educational quality. On the smallest island in the Pacific, the Norfolk Island Central School provides internationally competitive education from kindergarten to year 12. It is totally funded by the island's government. The school's graduates can move into jobs or choose to study abroad. Norfolk Island reflects the experience of government tailored to the needs of an island of some 2,000 inhabitants. Government policies are the determining factor in the development of primary, secondary, and tertiary education, and in whether these are internationally competitive in preparing children for work.

The underperforming group of Pacific countries has followed sharply different education policies.

Fiji has a dual education system consisting of Fijian Indian and Fijian schools. Attendance in both sets of primary schools is high, but the education content is different. In Fijian Indian schools, instruction is in English, and curriculums are rigorous and follow through to secondary schools. Many Fijian Indian parents, fearing that their economic and social opportunities had stalled, invested in their children's education by funding study abroad at tertiary levels. Others took advantage of local post-secondary vocational education. Ethnic Fijian public primary schools followed less rigorous teaching practices, teaching in Fijian in primary schools. Fiji has vocational training facilities. Wealthier Fijian children are often educated in private Christian primary and secondary schools, and may proceed to the University of the South Pacific, which has its largest campus in Suva, or to more internationally competitive tertiary institutions abroad.

In Papua New Guinea, which has around 800 vernacular language groups, and the Solomon Islands, which has around 75, a unifying language was socially as well as politically necessary to unify the islands and make them politically viable states. The neglect of education in these islands in colonial times led to widespread uses of various forms of pidgin. But formal education for the children of elites has always been in English, which appears to be displacing pidgin in Papua New Guinea and the Solomon Islands through the influence of radio and television. Bislama has remained the lingua franca in Vanuatu although the children of the elite are educated in international schools in French or English. High population growth would have made the provision of primary education difficult even had these islands seen education as being of key importance, but educational philosophies have contributed to widespread illiteracy and non-numeracy.

Many aspects of postmodern educational philosophies have become open to increased criticism in Australia and New Zealand. In the islands, teaching in vernacular languages has been criticised because teachers are not available in sufficient numbers in such languages, so that education in the vernacular fails to promote literacy and numeracy. Research findings that children learn languages most effectively at young ages, which inform the education philosophies of high-income countries that introduce second languages in preschools, have been ignored in many parts of the Pacific. Poorly constructed and poorly equipped rural schools compound teaching problems. Often, there is no paper, and few pens, pencils, or books. Few rural schools have electricity, so they lack the teaching aids of normal schools. Accommodation for teachers is generally inadequate. They may have

**Government policies are the determining factor in the development of primary, secondary, and tertiary education, and in whether these are internationally competitive in preparing children for work.**

**Labour markets in the Pacific are also sharply divided between the islands whose economies are growing ... and the stagnating economies.**

to walk for several days to cash their teaching salaries. In 2004, the World Bank estimated that 15% of teachers were ‘ghosts’—that is, they did not turn up at their posts.<sup>36</sup> Children dropped out of school because they were not advancing in learning and mixed-age classes were often chaotic. Parents became disillusioned.

In Papua New Guinea, the Solomon Islands, and Vanuatu, ‘international’ schools teaching in English enrol elite and expatriate children and prepare them for higher education. Literacy and numeracy are privileges of elites and expatriates, including Chinese communities.

### ***Higher education***

The Pacific has a dual higher-education system. The islands associated with the United States have established community colleges with vocational and sub-professional academic streams, which are far better suited to the small developing states of the Pacific than are the Anglophone and Francophone systems of vocational institutions and universities modelled on home countries but unable to reach international standards in many disciplines. Some vocational education is present in most islands, but it tends to be limited so that shortages of tradesmen, often filled by expatriates, are typical. Vocational education has been neglected in favour of universities.

The region has three universities: the University of Papua New Guinea in Port Moresby, the Lae University of Technology, and the University of the South Pacific, which has its main campus in Suva, two further campuses in Fiji, and campuses on 11 other islands. French Polynesia and New Caledonia also have tertiary institutions with university status. These institutions have absorbed a high proportion of the resources devoted to education by the islands. The small number of students with real secondary qualifications makes the operation of these tertiary institutions extremely difficult. It is also difficult to attract qualified staff, except for a few visitors happy to experience short stints in the tropics. Many students need transitional courses to qualify for classes, even though such classes are of a lower standard than in mainstream universities in Australia or New Zealand.

### **Labour markets**

Labour markets in the Pacific are also sharply divided between the islands whose economies are growing, particularly those that have opted for high emigration levels, and the stagnating economies. In those with growing economies, government expenditures on infrastructure and private investment in tourism, service enterprises, agriculture, and manufacturing have created not only formal employment but also some informal-sector employment. Together with the continuing employment of women in gardens much of the labour force has been absorbed. In the larger Pacific economies, in contrast, economic stagnation has led to underemployment and unemployment for some 80% of the male population. Pacific governments are unwilling to face this reality. The most recent figures posted for Papua New Guinea claim an unemployment rate of 2.8%.<sup>37</sup>

### ***Formal-sector employment in growing Pacific economies***

In French Polynesia, public funding associated with the islands’ role in nuclear weapons testing led to substantial public investment. Together with private investment in tourism, this stimulated formal-sector employment. The multiplier effects encouraged informal services for tourism and cash cropping to supply tourist resorts and facilities.

Despite ethnic labour-market stratification, which reserved most skilled public-sector jobs for French citizens, and many mining jobs for the descendants of French colonists, public and private investment has also had considerable multiplier effects on employment in New Caledonia, with some informal-sector growth. The combination of emigration with public and private-sector investment raised formal-sector participation in most of the islands associated with the United States and New Zealand. The Micronesian islands have a long history of population mobility, centred on Guam, dating to colonial days, so that the shift of United States military forces to Guam is likely to stimulate employment

throughout the Micronesian islands. Military personnel are likely to use tourist facilities in the Micronesian islands. Labour shortages are likely to develop as they have in the Cook Islands and Palau, where high rates of emigration have required immigration to service tourism.

**Table 6:** Selected labour-market characteristics, latest year

	<b>Working-age population</b>	<b>Formal-sector workforce</b>	<b>Unemployed and under-employed, total</b>	<b>Unemployed and under-employed males</b>	<b>Annual additions to labour force</b>
Papua New Guinea	3,190,000	220,000	2,970,000	1,485,000	150,753
Fiji	578,500	111,133	467,367	233,684	20,029
Solomon Islands*	307,800	57,472	250,328	125,164	16,090
French Polynesia	183,600	55,516	128,084	64,042	5,168
New Caledonia	142,560	46,296	96,264	48,132	4,474
Vanuatu	114,000	23,801	90,199	45,100	4,899
Samoa	97,350	50,325	47,025	23,513	3,441
Tonga	64,960	15,597	49,363	24,682	2,890
Micronesia	62,640	15,576	47,064	23,532	2,865
Kiribati	60,770	9,200	51,570	25,785	2,868
Northern Mariana Islands†	64,000	6,006	57,994	28,997	1,141
Marshall Islands	34,810	10,141	24,669	12,335	1,611
American Samoa	36,480	17,230	19,250	9,625	1,476
Cook Islands	12,600	5846	6,754	3,377	
Palau	13,800	9383	4,417	2,209	384
Nauru	8,060	1,173	6,887	3,444	349
Tuvalu	7,540	1,978	5,562	2,781	256
Niue		663			
Tokelau	742	142	600	300	42
Wallis and Futuna		3,104			
<b>Total</b>	<b>4,980,212</b>	<b>660,582</b>	<b>4,323,397</b>	<b>2,161,699</b>	<b>218,738</b>

**Source:** CIA, country statistics<sup>38</sup>

\* Solomon Islands formal sector appears high.

† In the Northern Mariana Islands, there is a sizeable tourist industry, with around 500,000 annual arrivals. There, tourism is thought to employ 30,000 additional people not counted in the formal numbers.<sup>39</sup>

In Samoa, the reforms of the 1990s succeeded in increasing the size of the formal and informal private sector through growth in tourism and services. One major manufacturing enterprise—an automotive component plant—has soaked up much of the available labour. Even in Tonga, where a rapacious oligarchy has repressed investment, high emigration rates have reduced unemployment and underemployment. In Kiribati, and more so in Tuvalu, employment in international shipping has reduced pressures from unemployment

**In the larger Pacific economies ... stagnation has led to underemployment and unemployment for some 80% of the male population.**

**In Papua New Guinea, the Solomon Islands, and Vanuatu the majority of men will live without ever having experienced steady work or accompanying incomes.**

and underemployment. Fiji's positive, albeit low, growth until the 1990s was reflected in rising public- and private-sector employment. The growth of the clothing industry and resurgence of tourism tightened labour markets until the early 2000s. But demand for labour then collapsed with the decline of the sugar industry, the failure of the clothing firms to move into markets where they could compete, and declining public and private investment following political disturbances. Initiatives such as the establishment of call centres have not been expanded. For Fijian Indians, emigration became a preferred option, leading to skill shortages that impinged on private sector profitability and public sector productivity, depressing growth and private investment.

In Papua New Guinea, the Solomon Islands, and Vanuatu, it was already becoming evident in the 1980s that most of the boys and girls leaving primary schools were unable to find the formal-sector jobs for which their parents hoped education would prepare them. Most girls were absorbed in working in gardens, but there was little for young men to do. They drifted to towns, and if they could not make a living there they returned disconsolately to villages. By the 1990s, not only were the absolute numbers of underemployed and unemployed men high, but many men were growing to middle age without ever having had an income from farming or a job. As 2010 nears, in Papua New Guinea, the Solomon Islands, and Vanuatu the majority of men will live without ever having experienced steady work or accompanying incomes.

In Papua New Guinea and the Solomon Islands, focusing on resource industries failed to create jobs. The leading jobs in these industries require highly specialised professional qualifications. In the absence of sustained education policies, they are still filled by expatriates. Local people have been trained for most of the trade jobs in mines and timber logging, but such positions are relatively few. The economic rent effects of the resource industries have made low-productivity smallholder agriculture uncompetitive. This is evident in declining outputs of cash crops such as coffee, cocoa, and vegetables. Most tourist facilities still rely on imported food. Investment in oil-palm plantations has been limited, but at least output has increased.

In Vanuatu, offshore finance had a similar effect to resource exploitation in putting an upward pressure on exchange rates, but created few jobs for ni-Vanuatu workers. Its main effect has been to pour funding into real-estate development for the local elite and for expatriates. This has created some construction jobs.

The relatively high exchange rates created by resource exploitation should have encouraged import-substituting manufacturing in Papua New Guinea and the Solomon Islands. But governments failed to provide the necessary infrastructure, notably policing, energy, transport, and communications. Protectionist import-substitution policies that granted sugar and canning production monopolies inevitably failed to promote manufacturing employment. Attempts to start up manufacturing of clothing for export failed. Fish canning for export has been successful in Papua New Guinea and in the Solomon Islands, but the latter collapsed with political unrest.<sup>40</sup> Papua New Guineans, like other Pacific islanders, are enterprising, taking advantage of marketing and other opportunities wherever they occur, but without agricultural development there has been very limited off-farm employment, be it in retail, transport services, or construction.<sup>41</sup>

In Papua New Guinea, urban employment has largely been absorbed in commerce (24%), services (34%), manufacturing (23%—notably in food-processing industries), construction (11%), and transport (8%).<sup>42</sup> About half of the workers in the commerce category were salespeople, storemen, and clerks. Tourism did not rate as a category. Included in the ranks of service workers were the nearly 10% of the formal-sector workforce who were private security guards. In recent years, when annual growth became positive with booming mineral prices, Papua New Guinea still saw few new formal jobs. The expatriate personnel of the Regional Assistance Mission to the Solomon Islands, and of the non-government organisations active in administrative, policy, regulatory, and policing roles, have crowded out Solomon Islanders. Being denied employment opportunities has frustrated and alienated locals. Thus, while the end of civil disturbances

has been appreciated, Solomon islanders have been deeply resentful of the ‘guild’ of politicians who have been seen as the only islanders permitted to play a role in the running of their own country.<sup>43</sup>

In weakly growing Pacific islands, public-sector employment in administration, utilities, education, and health accounts for more than 30% or even 40% of formal employment (see table 7), but in these countries public investment has been low. Productivity is abysmal despite endless ‘governance’ aid projects. Low educational attainments mean that many public servants are not functionally literate or numerate, let alone have trade or professional skills. But they have security of tenure and so lack accountability for outcomes.

The low productivity of public sectors in the Pacific is evident in the operation of power, water, and sanitation, the quality and coverage of roads and harbours, and of the mainly publicly owned telecommunications services. Papua New Guinea struggled for years to introduce a private mobile telephone network, which when finally introduced doubled the number of mobile subscribers within three weeks. Public sectors are swollen by jobs created to reward governments’ political supporters. In Papua New Guinea, 10% to 15% of public service jobs are filled by ‘ghosts’ who collect salaries but do not turn up to work. Nauru had some 1,200 public servants for a population of 10,000 people in the 1990s. High numbers of expatriates continue to be employed at high cost in most of the Pacific. In 2007, Nauru had 10 Australians filling senior public service positions that in an Australian shire with an equivalent population might have been filled by two or three managers.

**Table 7:** Size of the public sector (1999) and size of the formal sector (2005) as a proportion of the working-age population

	<b>Formal sector as a proportion of working age population 1999 (%)</b>	<b>Public sector as a proportion of formal sector 2005 (%)</b>
Papua New Guinea	7	35
Fiji	20	40
Solomon Islands	20	32
French Polynesia	30	
New Caledonia	30	
Vanuatu	21	30
Samoa	52	25
Micronesia	25	25
Tonga	24	40
Kiribati	15	70
Northern Mariana Islands	9	
Marshall Islands	30	43
American Samoa	30	
Cook Islands	47	25
Palau	68	
Nauru	15	
Tuvalu	26	66
Niue		
Tokelau	19	
Wallis and Futuna		

**Source:** Asian Development Bank,<sup>44</sup> and country statistics, latest year.

**In weakly growing Pacific islands ... productivity is abysmal despite endless ‘governance’ aid projects.**

### ***Where is the informal sector in the Pacific?***

In many developing economies, particularly in Asia but also in Africa, informal sectors absorb a substantial proportion of labour. Services such as small retail shops, bicycle, motorcycle, and motor-vehicle repairs, plumbing and electrical workshops, cooked food sales, and furniture- and cooking-stove-producing workshops typically line township streets. Small buses and freight carriers are common. Informal sectors provide cash incomes and business experience, and are major sources of employment. Such enterprises play a vital role in moving from small-scale, low-productivity activities to modern, large-scale, technology-intensive, highly productive and internationally competitive production.

The small-scale end of the formal sector in the Pacific, which includes retail shops and service enterprises, has been taken over by Chinese, Indian, and Filipino immigrants. They are literate and numerate, and have the advantage of connections with suppliers. Small-scale expatriate Asian entrepreneurs have also increasingly taken over from colonial firms as wholesaler importers, and have moved into transport and associated services.

Indigenous informal-sector activities are extremely limited and in the rural areas of the stagnating islands almost entirely absent. The lack of agricultural development with the consequent absence of off-farm activities is undoubtedly a major factor. So are the regulations inherited from colonial governments that make it difficult to establish small enterprises such as hair salons. Corrupt police frequently use regulations to knock down market stalls and the stocks of roadside betel-nut sellers when vendors do not pay them sufficient protection money. The higher profitability of illegal marijuana stalls funds their protection payments, usually protecting them from the law.

Most Pacific governments regard informal entrepreneurial activities as undesirable. They associate development with large scale, the latest technology, and potential tax revenues, rather than with employment and incomes. In practice, aid donors support such views of development. Although their rhetoric may favour small-scale industries and employment, their concerns are with the formal sector. Government policies are influenced to favour foreign investment, often protecting it against small entrepreneurs.

This leaves criminal enterprises—developed by islanders unable to find jobs or crowded out of legitimate business—as the principal sources of informal-sector employment in the Pacific. Robbery, protection rackets, prostitution, gambling, drug sales, and associated arms-dealing and violence are thriving. When the Australian government attempted to reduce crime levels in Papua New Guinea, leading criminals protested that it was an attack on their livelihood.

Such criminal activities have inevitably attracted major international criminal interests. When simple trades of imported guns for marijuana grew into major business opportunities, Chinese Triads came to Papua New Guinea to exploit them. Triads are now employing *raskol* gangs to carry out robberies and supervise rackets in protection, prostitution, and gambling.

### **Conclusions**

The Pacific is now home to more than eight million people, of whom some five million are of working age. Most working-age women are denied modern employment opportunities that yield reasonable incomes, but at least they are employed in gardens and household care. More than two million men—four out of five—are unemployed in towns or underemployed in villages. More than 100,000 men join the labour force annually. Most of these will never work and never earn an income. Every day, men and boys can be seen languishing in villages and towns, and by the roadside. They are bored and frustrated. Papua New Guinea alone has nearly 1.5 million unemployed and underemployed men, and is adding about 75,000 to this number annually. By 2030, Papua New Guinea could have a population of 9 to 10 million, depending on the progress of HIV/AIDS, and the Pacific's population could be more than 13 million.

Unemployment and underemployment are at the core of Pacific crime, and are the cause of the 'arc of instability.' Without employment-led growth, crime, civil disruption,



and corruption will undoubtedly worsen. With major criminal interests now operating in the region, the Pacific is developing its comparative advantage as a location for international criminal activities such as people-smuggling, drug production, and arms trafficking.

The past 30 years' history of population growth in the Pacific, fed by expanding subsistence agriculture, is unsustainable. New land-tenure regimes and agricultural policies must increase the productivity of land. Existing shifting-garden cultivation practices are already putting pressure on land at the margin, with violence as a consequence. The Solomon Islands still has swathes of underutilised land, but land shortages on Malaita led to massive migration to Guadalcanal—a major cause of the breakdown of government there.

Land problems are also escalating in Papua New Guinea. The Porgera Valley's population of a few thousand has risen to 50,000, most of whom have become dependent on the area's mineral economy. When the gold mine there closes within ten years or so, the skilled workers will be able to move to new mines, but the majority who have migrated to the valley will not be able to feed themselves. Similar situations will develop as other mines close even if new mines are developed. Land pressures have developed around Port Vila in Vanuatu as real-estate development and tourism impinge on gardens and so on islanders' livelihoods. Nauru does not have enough land to feed its population. The cost of turning the coral pinnacles into agricultural land would be formidable even if it turned out to be viable. The comfortable 'primitive affluence' of subsistence agriculture is receding into the past.

Permanent emigration can continue to be a safety valve for the Pacific, particularly for its small countries, easing labour-market pressures, adding remittances to income, and contributing to political maturity. Some Pacific islands may, however, wish to maintain a better balance between their island population and emigration than those that, like Tonga, Niue, the Cook Islands, and Tokelau, have more nationals residing abroad than at home.

Guest-worker schemes, which have been proposed as a development solution for the Pacific, no doubt benefit the individuals lucky enough to be selected to participate. But even high guest-worker numbers, of 50,000 a year for Australia and 25,000 for New Zealand, would not help the employment problems of Papua New Guinea, Fiji, and the Solomon Islands. Short-term migration also has costs that need to be thought about.<sup>45</sup>

While some Pacific islands have grown modestly and delivered better social and economic outcomes for their people, the large states that make up the bulk of the region's population have stagnated at best and may be worse off today than at independence. These islands will decide the future stability and prosperity of the region.

The Pacific can only avoid looming economic, social, and political crises if its large economies dramatically reform their policies to encourage substantial employment creating growth. It is only a matter of time before the growing army of unemployed and underemployed turns from restless to violent.

## Endnotes

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- <sup>2</sup> United Nations, 'The UN Millennium Development Goals' (2008), [www.un.org/millenniumgoals/](http://www.un.org/millenniumgoals/).
- <sup>3</sup> The International Monetary Fund funded a survey of Pacific island statistics that exposed the weakness of Pacific island statistical offices, but did not follow up with remedial measures. The World Bank and the Asian Development Bank publish annual social indicator series that are not consistent from year to year or among countries. Reporting on the region from the United Nations, the World Bank, and the Asian Development Bank has been too spasmodic to provide reliable demographic and social data. The World Bank and the Asian Development Bank take less trouble to ascertain the validity of data than does the CIA, whose World Factbook has therefore been used as the principal data source in this paper. AusAID moved funding for technical assistance and the publication of reliable data series from the National Centre of Development Studies at the Australian National University, which had spent a decade developing a statistical support capacity for the south Pacific, to the Secretariat of the South Pacific Commission in Noumea, which lacked the professional capacity for this work. The Pacific Regional Information System (PRISM) of the Secretariat of the Pacific Community is, consequently, largely empty.
- <sup>4</sup> IMF, *IMF Statistical Yearbook 2008*. See [www.imfstatistics.org/imf/](http://www.imfstatistics.org/imf/).
- <sup>5</sup> CIA, 'The World Factbook,' (2008), [www.cia.gov/library/publications/the-world-factbook/](http://www.cia.gov/library/publications/the-world-factbook/), and World Bank, *World Development Indicators 2008* (Washington: World Bank, 2008).
- <sup>6</sup> For World Bank maternal mortality data, see World Bank, *World Development Indicators 2007* (Washington: World Bank, 2007).
- <sup>7</sup> World Bank, *World Development Indicators 2007*.
- <sup>8</sup> Water, sanitation and power access data are too ill-defined and ill-measured to be usable. (What, for instance, is 'access to sanitation'?)
- <sup>9</sup> Australian Red Cross, 'Tackling Malaria in the Solomon Islands,' *The Humanitarian* 6 (March 2008).
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- <sup>11</sup> Discussed in chapter 5 of Helen Hughes and Gaurav Sodhi, *Aid Has Failed the Pacific* (Sydney: CIS, 2009), forthcoming.
- <sup>12</sup> As above.
- <sup>13</sup> As above.
- <sup>14</sup> See World Bank, *Papua New Guinea: Delivering Public Services*, Report 14414-PNG, (Washington: World Bank, 1995).
- <sup>15</sup> Transparency International, *Global Corruption Report 2006* (London: Pluto Press, 2006), [www.transparency.org/publications/gcr/download\\_gcr/download\\_gcr\\_2006](http://www.transparency.org/publications/gcr/download_gcr/download_gcr_2006).
- <sup>16</sup> In Vanuatu, there were only five indigenous doctors in 1980, and two were of retirement age. More recent data and data for other islands are not available.
- <sup>17</sup> H. Hughes and G. Sodhi, *Aid Has Failed the Pacific* (forthcoming).
- <sup>18</sup> C. Jenkins, *HIV/AIDS in the Pacific* (Manila: Asian Development Bank, 2005), 4.
- <sup>19</sup> AusAID, *Impacts of HIV/AIDS 2005–2025 in Papua New Guinea, Indonesia and East Timor: Final Report of HIV Epidemiological Modelling and Impact Study* (Canberra: AusAID, 2006), [www.ausaid.gov.au/publications/pubout.cfm?ID=6912\\_3210\\_5427\\_6152\\_4107&Type=PubKAH](http://www.ausaid.gov.au/publications/pubout.cfm?ID=6912_3210_5427_6152_4107&Type=PubKAH). Caritas Australia estimates about 150,000 infections. See Caritas Australia, 'PNG – Tackling the Root of the Problem,' *Caritasnews Magazine* (Summer 2007), [www.caritas.org.au/Content/NavigationMenu/BeInformed/Caritasnewsmagazine/2007/Summer/CaritasNews111411.htm](http://www.caritas.org.au/Content/NavigationMenu/BeInformed/Caritasnewsmagazine/2007/Summer/CaritasNews111411.htm).
- <sup>20</sup> H. Hughes and G. Sodhi, *Aid Has Failed the Pacific*, forthcoming.
- <sup>21</sup> T. Cullen, 'HIV/AIDS in Papua New Guinea: A Reality Check,' *Pacific Journalism Review* 12:1 (2006), 161.
- <sup>22</sup> Post-Courier Online, 'WHO Warns PNG of AIDS Scourge,' *Post-Courier Online* (23 September 2004), [www.postcourier.com.pg/20040923/news02.htm](http://www.postcourier.com.pg/20040923/news02.htm)
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- <sup>25</sup> The Catholic Church in fact delivers over 25% of health services in PNG. See Caritas

- Australia, 'PNG – Tackling the Root of the Problem.'
- <sup>26</sup> V. Luker, 'Civil Society, Social Capital and the Churches: HIV/AIDS in Papua New Guinea' (paper presented at the 'Governance and Civil Society' seminar, as part of the symposium 'Governance in Pacific States: Reassessing Roles and Remedies,' University of the South Pacific, Suva, 30 September–2 October 2003), [rspas.anu.edu.au/papers/melanesia/working\\_papers/LukerCivilSocietyFeb04.pdf](http://rspas.anu.edu.au/papers/melanesia/working_papers/LukerCivilSocietyFeb04.pdf)
- <sup>27</sup> AusAID, *Impacts of HIV/AIDS 2005–2025 in Papua New Guinea, Indonesia and East Timor*.
- <sup>28</sup> M. Howe, 'Papua New Guinea Faces HIV Epidemic,' *The Lancet Infectious Diseases* 2:7 (July 2002), 386.
- <sup>29</sup> Centre for International Economics, *Potential Economic Impacts of an HIV/AIDS Epidemic in Papua New Guinea* (Canberra: AusAID, 2002), 34.
- <sup>30</sup> A. Jorari and M. Laisa, *Population Projections for the Citizen Population of Papua New Guinea for the Period 1990–2020* (Port Moresby, 1996).
- <sup>31</sup> See chapter 8 of H. Hughes and G. Sodhi, *Aid Has Failed the Pacific*, forthcoming.
- <sup>32</sup> CIA, 'The World Factbook'; World Bank, *World Development Indicators*.
- <sup>33</sup> ADB, *Kiribati, Modernization in an Atoll Society: Managing Economic and Social Change* (Manila: ADB, 2002), 117–127 .
- <sup>34</sup> As above.
- <sup>35</sup> ADB, *Tuvalu: 2002 Economic and Public Sector Review* (Manila: ADB, 2002), 104–120
- <sup>36</sup> See chapter 5 of Helen Hughes and Gaurav Sodhi, *Aid Has Failed the Pacific*, forthcoming.
- <sup>37</sup> Secretariat of the Pacific, 'PRISM—Papua New Guinea,' [www.spc.int/prism/country/pg/pg\\_index.html](http://www.spc.int/prism/country/pg/pg_index.html) (accessed 1 August 2008).
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- <sup>39</sup> W. M. Osman, *Commonwealth of the Northern Mariana Islands Economic Report*, (Honolulu: Bank of Hawaii / East–West Center, 2003).
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- <sup>41</sup> T. Anderson, 'Women Roadside Sellers in Madang,' *Pacific Economic Bulletin*, 23:1 (2008): 59–73.
- <sup>42</sup> T. Levantis conducted a survey of urban employment published as 'The Urban Labour Market in Papua New Guinea, Post Regulation,' *Pacific Economic Bulletin* 12:2 (1997).
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- <sup>44</sup> R. Duncan, S. Cuthbertson, and M. Bosworth, *Pursuing Economic Reform in the Pacific* (Manila: ADB, 1999).
- <sup>45</sup> H. Hughes and G. Sodhi, *Should Australia and New Zealand Open Their Doors to Guest Workers From the Pacific? Costs and Benefits*, CIS Policy Monograph 72 (Sydney: CIS, 2006).

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