Chapter 8

Migration and Climate Change: Towards a Secure Future

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8.1 Introduction[1]

Migration has had a long history in the Pacific, with Pacific islanders sometimes regarded as particularly mobile people (Hau'ofa 1994). In the last half-century, there has been both accelerated international migration and rural-urban migration, with declining populations in national peripheries and growing high-density urban concentrations. These trends have accompanied slow economic growth in the Pacific, the inability to create adequate numbers of jobs in the formal sector, steady population growth and rising expectations of what constitute adequate lives and livelihoods. While migration has long been primarily an economic phenomenon, social, political and environmental factors are also significant, and climate change will intensify future pressures for migration. Migration may be seen both as a contributor to development, whether sustainable or otherwise, or an alternative to it, where for example it constitutes a significant brain drain, and that balance varies between countries and regions.

The Pacific region includes some of the most vulnerable islands and countries in the world, and the islands most at threat from climate change and population displacement are coral atolls. Gradually rising sea levels, and more intense storms and cyclones, pose risks to coastal settlements, water resources, plants and human health (Nurse *et al.* 2014). In atolls, all settlements are coastal and all are only just above sea level. There are more than 150 populated atolls in the Pacific. The Commonwealth Pacific small states most at risk are Kiribati and Tuvalu, having weak economies significantly dependent on subsistence fisheries, which restricts national ability to respond and cope domestically, and being exclusively composed of atolls scattered over a vast expanse of ocean. Neither have significant ex-colonial ties or overseas diaspora populations, hence have no 'beachhead' populations overseas with whom to build migration bridges, and fewer assured sources of remittances. Migration and resettlement within the Pacific region is limited, primarily because economic and employment opportunities are absent and appropriate, accessible land is scarce. Fiji has offered to accommodate people from Kiribati and Tuvalu displaced by factors relating to climate change. As land has become more valuable and more densely populated within the region, future pathways for displaced people are more likely to involve migration to metropolitan states.

Migration from many Commonwealth Pacific small states to New Zealand and Australia is substantial and mainly permanent, and has generally benefited sending

countries, migrants and destination countries. Agricultural employment schemes in the same two countries have opened up temporary migration opportunities in the past decade, that have been similarly beneficial, especially for Vanuatu and Tonga. Pacific islanders seek superior temporary and permanent migration opportunities in metropolitan states. New Zealand temporary and permanent migration schemes offer models for Australia and elsewhere and might be extended further.

Slow and steady migration and resettlement, the ability of the people themselves to participate in decision-making, the possibility of some people remaining at home, and their capacity to resist and slow environmental displacement are critical to the success of future migration, whether national or international. There are several opportunities for Commonwealth Pacific small states to establish some degree of 'migration with dignity' – where migration meets a range of needs and can be suitably planned and managed—but the politics of migration will become increasingly sensitive and critical. These issues are likely to become more challenging in the face of climate change, although there are considerable uncertainties about the speed and sometimes direction of climate change, especially at local scales (World Bank 2016a). Key issues centre on whether Commonwealth Pacific small states can develop economies where the 'rush to migration' can be slowed and whether harmful environmental change can be mitigated and reduced, since the costs of climate change will be considerable and phased migration difficult to arrange.

8.2 Context

8.2.1 International migration

Globally, migration from relatively poor countries to richer ones is currently substantial through formal channels and marked by one of the deadliest periods in the history of global migration as migrants seek to cross the Mediterranean in search of new opportunities. While that has largely been a response to economic problems, it also follows political and social problems and tensions in various parts of the Middle East and sub-Saharan Africa. As migratory numbers and aspirations have grown, reaction to migration has become particularly strident, marked by Donald Trump's call for a wall between the United States and Mexico, a resurgence in racism, the thrust of the successful Brexit leave campaign, which highlighted the political groundswell against globalisation, immigration and the neoliberal economic agenda. That was emphasised by strong tensions between the European Union's eastward enlargement and the sensitivity of the immigration issue, alongside the rise of protectionism and virulent anti-immigration in Australasia, marked by draconian policies towards undocumented migrants. The fundamental tension between those who wanted a United States of Europe (where there cannot be constraints on internal migration) and Britain's vision of a more limited economic-based integration was won by the strength of perceptions about excessive unmanageable migration. Migration has never been easy and there has never been a good time to be a migrant but the extent of global opposition to migration is currently at an extremely high level and that seems unlikely to change in the near future. It is this context that the present and future of Pacific migration exists.

International migration from Commonwealth Pacific small states has intensified since the 1960s, particularly from Samoa, after becoming independent in 1962. Most of that migration was voluntary, of individuals and later families, moving to metropolitan states, especially New Zealand, and with many becoming permanent migrants. Several migrant generations now exist there and in most metropolitan states. By contrast international migration from Papua New Guinea (PNG), Solomon Islands and Vanuatu has been almost non-existent. That has partly resulted from different colonial relationships. Typically, migration has largely followed 'colonial' lines, with New Zealand being a key destination, and Kiribati and Tuvalu being very latecomers to migration, since there was no migration corridor to the United Kingdom. Migration flows have generally been much less than meets demand for them within the Commonwealth Pacific small states, and are constrained by recipient metropolitan countries. Nonetheless, most countries benefit from some preferential arrangements, notably in New Zealand, although these account for small numbers.

Migration from the larger Commonwealth Pacific small states gradually extended and involve other destinations beyond Pacific rim destinations, included more evidently skilled migrants (such as health workers) and resulted in substantial remittance flows that have become significant parts of their economies. Most migration was of households. Anticipated temporary migration gradually became permanent over time. A continued steady flow has occurred in this century, with the same themes and structures, but with some new entrants, notably Tuvalu.

The outcome of these international migration flows has been a substantial population of Pacific islanders in the metropolitan states that border the Pacific. Currently, there are over three-quarters of a million Pacific-born people in Australia and New Zealand, and many more in the United States and elsewhere, and these numbers continue to grow. Second and third generations swell these numbers significantly. By 2010 some 850,000 people of Pacific ethnicity or ancestry lived in the four main Pacific Rim migrant destinations: New Zealand (350,000), Australia (150,000), the USA (300,000) and Canada (50,000). There were also small populations in the United Kingdom, Europe and Asia. In Australia, New Zealand and Canada most of these were from Commonwealth Pacific small states. The combined Pacific-born populations in Australia and New Zealand rose dramatically between 1971 and 2006, from 46,000 to 250,000. A similar increase up to 2050 would bring that population to around 1.5 million (Bedford and Hugo 2012).

8.2.2 Migration structures

While most migration from Commonwealth Pacific small states to metropolitan states has been voluntary, and has taken thousands of islanders to join their kin overseas, a number of formal schemes exist to enable particular strands of migration, whether permanent migration opportunities (the lotteries of New Zealand and also the United States) or schemes for temporary employment (invariably in agriculture) and/or for training in particular activities. These schemes offer some potential for the future migration of Pacific islanders whether or not influenced by climate change.

New Zealand is the only country that formally offers migration places to Pacific islanders. Since 2002, New Zealand has offered a Pacific Access Category, which allocates places to a range of Pacific island countries. It offers 1,100 places a year to Samoa, 250 places a year to Tonga and Fiji, and 75 to migrants from both Kiribati and Tuvalu. Places are allocated through lottery schemes (for which there is huge competition) but lottery winners must have a job offer in New Zealand to take advantage of migration. The United States similarly offers a lottery scheme but there is effectively an even smaller number of places.

Such preferences seem to have posed no problems in New Zealand, with relatively small numbers migrating annually, and might well be extended to Australia, although Australia has preferred not to make special arrangements for particular countries (other than New Zealand). No other Pacific rim states offer similar schemes and, although New Zealand has various flexible schemes, with small numbers, whenever there has appeared to be 'excessive' migration, the schemes were 'tightened up' to reduce the numbers. Formal schemes therefore have been limited in increasing migrant numbers or diversifying the flows by origin.

Moreover, in this century Australia has tended to cut back its liberal provisions for migration from New Zealand as that increasingly brought Pacific islander migrants who had first stayed in New Zealand and acquired citizenship there (Hamer 2014). A significant distinction between the two countries is that New Zealand sees itself as part of the South Pacific whereas Australia (and even more so the United States) does not. Concessional schemes for Pacific islanders have no obvious place there. Specific opportunities for 'new' migration opportunities to 'traditional' destination countries are thus quite limited.

8.2.3 Intra-regional migration

Compared with international migration beyond the Commonwealth Pacific small states, minimal intra-regional migration occurs despite the existence of efforts from at least the 1970s to promote it. Currently, the Melanesian Spearhead Group (MSG) are promoting a MSG Skilled Mobility Initiative but there is little sign of significant intra-regional migration, in large part because of competition from workers from other countries (such as Filipinos and Chinese in PNG). When countries and companies have sought to employ skilled workers they have generally sourced them within the particular country or sought to obtain them outside the Pacific. When New Caledonia expanded its mine workforce in the 'nickel boom' of the 1970s, workers were selected from the other two French Pacific territories and interest from the then Gilbert (Kiribati) and Ellice Islands (Tuvalu) was rejected. A similar pattern has continued with New Caledonian mines preferring to take Filipino mineworkers rather than taking workers from nearby island states. Much the same has been true in PNG, for the mining and construction industries.

Nevertheless, some migration has occurred within the region, including the flows of nurses from Fiji to the Marshall Islands and Palau, and from the Solomon Islands to Vanuatu, and of Fijian hospitality workers moving to the tourism sector in the Cook Islands. Such flows are relatively small. A flow does exist, however, of elite bureaucrats

and others into regional and international organisations, many of which are in Fiji. Generally, intra-regional flows are exceptional and this has contributed to some lack of familiarity, even among elite Pacific islanders, with circumstances (including job markets) in other Pacific island countries.

8.2.4 Remittances

After more than half a century of migration, especially in Samoa and Tonga, a 'culture of migration' has developed, where migration is normative, acceptable and seemingly inevitable. Underpinning international migration especially is the desire to benefit both the welfare of individual migrants, and their children, and that of family members who have remained at home. Where Commonwealth Pacific small states have moved towards a 'culture of migration', remittances are a key theme. Migrants can be well placed to contribute to development at home through their familiarity with needs, and remittances contribute both directly and indirectly to human capital formation.

As international migration has become of greater significance, so remittance flows are larger, especially in comparison with aid flows, and more stable than other sources of national and household finance. Remittances can also compensate in the aftermath of crises and disasters, whether physical (especially cyclones) or economic, being counter-cyclical. Growing recognition of their value has brought new institutional interest in managing flows and 'harnessing' remittances for financing investment and economic growth. Remittances are such a substantial component of most Commonwealth Pacific small states, and especially the smaller ones, that they have been described as having Migration, Remittances, Aid and Bureaucracy (MIRAB) economies, an acronym first devised for Kiribati, Tuvalu, Tokelau and the Cook Islands, but now seen as more broadly relevant (despite its unfortunate connotation of a handout mentality). Tonga and Samoa are within the top 20 countries in the world in terms of the contribution of remittances to gross domestic product (GDP). Sustained remittances are crucial for national development.

Both unskilled and skilled migrants, such as nurses, sustain remittance levels at high levels, over long time periods, often more than 20 years, while skilled migrants may also provide advice ('social remittances') on education, health and other matters (Connell and Brown 2004). Remittances have contributed to more modern forms of consumption and welfare benefits, especially in association with improved housing, piped water, solar panels or generators, and small-scale services such as bars or petrol stations, small stores and taxis (Brown and Connell 2015). Remittances enable some diversification out of agriculture, an increased flexibility of livelihood choices, and over time, a reduction in both poverty and inequality (Brown, Connell and Jimenez 2014). Remittances also support local organisations (especially churches) and local needs, such as recovery from cyclone damage and other hazards.

Costs of sending remittances through standard money transfer companies have been high, more so in the Pacific than in most parts of the world, so that households lose substantial sums and the GDP of remittance-dependent countries, such as Tonga and Samoa, was reduced by about 4 per cent (Gibson *et al.* 2007). Concerted efforts have been made to reduce these costs to benefit recipient households, with electronic

transfers, mobile phones and access to ATMs reducing these costs. That process is continuing slowly.

In this century, in the Commonwealth Pacific small states, as elsewhere, remittances have become a new 'development mantra' (Kapur 2005), in a climate of aid fatigue, uncertainty about private investment, the extent of international migration and the propensity in some countries to train workers for migration. They constitute an effective, informal, family-based system of social protection for migrants' families. At the same time, they may help to sustain a 'migration syndrome', while imposing sacrifices on migrants. The sustainability of remittance-dependent development is particularly important, but how family reunification overseas and greater integration of migrants into host communities, influence the ability and willingness to remit is unpredictable. 'Remittance fatigue' occurs but remittances continue while close relatives remain at home. As long as migrants retain strong ties to their home communities they can be expected to maintain remittance flows. Technological changes enabling superior and cheaper communication, both mobile phones and social networking, may enable the retention of identity and connectivity and slow any decline. Remittances are likely to become more important in the future, even in a global context of substantial opposition to international migration, and, as international migration has become more significant, and aid stagnates, the balance has swung in favour of remittances having a positive role.

8.2.5 Economies

Migration has largely been a response to perceived socio-economic inequalities that in recent years have been accentuated by both a rise in expectations of incomes and living conditions and greater familiarity with circumstances in overseas countries. Major influences on migration involve rising expectations over what constitutes a satisfactory standard of living, a desirable occupation and access to services and amenities. Changing aspirations, the increased necessity and desire to earn cash, a preference for regular employment, and distaste for agricultural work have gradually given migration a primarily economic rationale: a movement in search of wage and salary employment, scarce or absent at home. Over time migration has usually become easier in practice as already migrant kin influenced and supported migration, by providing information, sending remittances (visible symbols of success), and offering fares and accommodation for newer migrants.

An economic rationale for migration is partly a function of limited economic growth in the region that is the outcome of significant and well-known constraints to economic development in small island states. Conventional economic development has been characteristically limited through a combination of factors including small populations, scarce resources, remoteness, fragmentation, susceptibility to extreme events (especially cyclones) in fragile environments, and vulnerability to external economic shocks, which have contributed to a distinctive dependence on aid and imports. Further constraints include high communication and energy costs, irregular international transport volumes (and uneconomic routes and loads), disproportionately expensive public administration and infrastructure, scarce local skills, problems of matching skills and jobs, limited domestic capital, small domestic

markets and few opportunities for economies of scale. These constraints have resulted in very narrow export specialisation and market orientation, which usually 'exposes the economies of mini states to real shocks of an intensity unparalleled in larger countries' (Galbis 1984, p. 37), so that export prices and foreign exchange earnings can fluctuate considerably and alarmingly. Manufacturing is conspicuous by its absence and without backward linkages to the agricultural or fisheries sectors. Consequently, development has long been widely recognised to be constrained by small size (Connell 2013b). All such problems are accentuated in the two Commonwealth Pacific atoll states (Kiribati and Tuvalu), where tiny populations are scattered over vast distances.

Economic development has been disappointing in the more or less half-century since independence. Agriculture has produced the bulk of exports for most of the Commonwealth Pacific small states but in this century has proved more difficult. Fisheries offer existing and future prospects dependent on international negotiations, while tourism offers options for some of the Commonwealth Pacific small states, but the tyranny of distance and intervening opportunities have resulted in tourism being trivial in the atoll states. High islands – which make up almost all of Melanesia (Fiji, PNG, Solomon Islands and Vanuatu) and parts of Polynesia (Samoa and Tonga), though islands are smaller there – have greater development opportunities than the atoll states, especially and those of other islands that are remote from markets, such as Kiribati, Nauru and Tuvalu (Gibson 2007).

Insurance and energy costs are high and entrepreneurialism is stifled by the lack of skills, capital and contacts, but also by scarce opportunities, beyond small-scale services. Public administration is costly and inefficient, and in most Commonwealth Pacific small states, provision of services – especially transport - to remote areas has worsened rather than improved. Relatively generous overseas aid and remittances have not compensated for such cumulative disadvantages. Weak economic growth has meant that the numbers of school-leavers, and thus potential entrants to the workforce, exceed the number of jobs created.

Creating employment is regarded as a regional priority (World Bank 2014, ADB and ILO 2015). There is extreme competition for jobs, high levels of youth unemployment: a visible 'youth bulge' which has contributed to social tensions in some urban centres and pressures for migration. In most Commonwealth Pacific small states, more than half the population are aged below 24. Relatively few people by number and proportion have post-school (tertiary) education and training, which leaves shortages for skilled positions, and potential migrants without the skills to access good jobs elsewhere. These circumstances provide the context for accelerated migration.

Several Commonwealth Pacific small states can be characterised as weak and fragile where service delivery to remote areas and islands (where employment opportunities are usually particularly scarce) has worsened, resulting in selective and accelerated migration from outlying areas and outer islands. In every Commonwealth Pacific small state, the margins fade and populations have become more concentrated in urban centres. Once again, this is particularly significant, and problematic, in the atoll states.

8.2.6 Population

Population pressures have been considerable in some parts of the region and have reduced opportunities for sustainable livelihoods, notably in the Commonwealth Pacific atoll states (Kiribati and Tuvalu). Basic food security has also become more difficult to achieve in these states (Connell 2015a). That has accentuated both internal migration and interest in international migration. In every Commonwealth Pacific small state, greater pressure is being exerted on coastal resources: a widespread 'coastal squeeze' especially as populations increase, because of the desire for access to services, and to land suitable for development (whether for agriculture, tourism or the construction of infrastructure). These concentrations have had negative impacts on coastal ecosystems, marine resources and again on food security. Population growth is not generally slowing fast enough to reduce or stabilise population pressure on scarce resources. Other than in outer islands, in most parts of the Pacific people now live at densities unprecedented in past history, and increasingly unsustainable.

Enormous differences exist between population densities in atoll states (Kiribati, Nauru and Tuvalu) compared with the much lower densities in the much larger high island states of PNG, Solomon Islands and Vanuatu (Table 8.1). However, population is growing much faster there and it is not possible to assume that much higher densities can necessarily be supported there. As projections indicate (Table 8.2), populations are growing extremely fast in several countries so that the populations of PNG, Solomon Islands and Vanuatu may well have almost doubled by 2050. Such a rapid population growth will be hard to manage even without negative economic and environmental change. By contrast the populations of Samoa, Tuvalu and Tonga may stabilise as long as they are able to take continued advantage of migration opportunities. Localised pressures are already considerable, such as the very high population densities of South Tarawa (Kiribati) and Funafuti (Tuvalu). In fragile atoll environments such as these, high population densities challenge water supply systems, sanitation, and solid waste management and present serious environmental and health risks, while recent rural-urban migrants have often been forced to occupy sites that are particularly prone to environmental hazards. Economic growth is too limited to mitigate or manage such problems. Moreover, what these projections do not show is that the Pacific population will become more concentrated in urban areas in the decades to come.

While fertility rates in the Commonwealth Pacific small states have declined over the past several decades, they remain relatively high in most countries. Unmet need for family planning is an issue in some Commonwealth Pacific small states, and there are signs that total fertility rates are stagnating around four to five children per woman. Institutional and governmental focus on slowing population growth rates has declined in recent years. The continued high fertility rates in many Pacific countries (Table 8.1) result in large numbers of young people who require education, training and job opportunities, while high teenage fertility rates are linked to poor education and unemployment. The combination of high population growth rates and/or fertility, few employment prospects and inadequate living conditions emphasises both the economic rationale for migration and the difficult environmental circumstances in urban atolls particularly, which are potentially substantially worsened through climate change.

Table 8.1 Population and mobility

	Population (estimate, mid-2016)	Urban population at last census (%)	Population density (people/km²)	Last intercensal annual growth rate	Last intercensal annual growth rate (urban)	Last intercensal annual growth rate (rural)	Total fertility rate	Teenage fertility rate (15-19 years)
Fiji	880,400	51	50	0.8	1.5	–0.1	2.6	36
Kiribati	112,900	57	141	1.2	2.1	0.1	3.9	50
Nauru	10,800	100	514	1.8	1.8	n/a	3.9	81
PNG	8,151,300	13	18	2.8	2.8	2.7	4.4	65
Samoa	194,000	20	66	0.8	–0.3	1.2	5.1	56
Solomon Is	651,700	20	23	2.8	4.7	1.8	4.4	78
Tonga	100,600	23	134	0.2	2.4	0.9	4.1	27
Tuvalu	10,100	57	388	1.2	3.1	–0.9	3.6	42
Vanuatu	289,700	24	24	2.5	3.5	1.9	4.2	81

Source: Secretariat of the Pacific Community (SPC) 2016

Table 8.2 Population projections to 2050

	Population (estimate, mid-2016)	Population projection 2030	Population projection 2050
Fiji	880,400	918,700	924,700
Kiribati	112,900	149,800	200,800
Nauru	10,800	12,100	14,200
PNG	8,151,300	10,790,800	15,057,600
Samoa	194,000	212,700	239,100
Solomon Is	651,700	902,300	1,351,600
Tonga	100,600	98,400	93,600
Tuvalu	10,100	10,600	10,600
Vanuatu	289,700	397,300	479,500

Source: Secretariat of the Pacific Community, 2016

8.2.7 Rural-urban migration

Rural–urban migration is mainly a Melanesian phenomenon, but is also substantial in Kiribati and Tuvalu, and is something of an alternative to international migration, where that cannot be achieved. Small urban areas have long existed in much of the Pacific but urbanisation has been relatively recent and quite rapid in Melanesia. Towns and cities have grown rapidly there in the years since independence, but without real planning or management. This has resulted in 'over-urbanisation' where urbanisation is characterised by high levels of unemployment (as youth graduate at a rate significantly faster than job creation: the 'youth bulge'), formal housing cannot meet the needs of migrants (and others), urban services, such as water and electricity, are absent, informal housing areas have become significant and environmental problems, associated with inadequate sewerage, water supply and waste management, and occasional flooding, have intensified. That has added to serious problems of urban management.

Unmistakably, Commonwealth Pacific small states face an urban future, and in the majority of these states urban population growth rates exceed national population growth rates (Table 8.1). In the atoll states of Kiribati and Tuvalu, urban populations now exceed rural populations. By 2050, it is likely that there will be at least one city of over a million people in the Pacific - Port Moresby – where more than half the population currently live in informal settlements. Informality occurs where incomes are low and irregular, public housing policies fail to meet demand for low cost housing, urban planning and management remain weak, formal housing is too scarce (or too expensive) and migrants especially are without employment and adequate incomes (Connell 2011). Many urban settlers have few sources of income, no legal residential status and no security of tenure, limited access to services (such as water, electricity and sewerage), and live at high densities, the combination of which poses social and health risks. Thus within parts of Tarawa, population densities are akin to those in Hong Kong, and social problems such as domestic violence, theft and alcohol abuse have become more significant.

Urbanisation is a combination of in-migration, usually the outcome of rural-urban migration, and less frequently immigration, but also of urban fertility. Land shortages

are the quintessential urban phenomenon, alongside land tenure disputes and conflicts, resulting in increasing numbers of informal settlements on unsuitable land (to which services cannot easily be extended), illegal dumping and other harmful practices. At least since the 1980s, many recent migrants have settled in marginal, particularly low-lying urban areas that are prone to flooding and disease problems, as in Tarawa and Funafuti. In Tarawa, migrants have settled illegally above key water lenses – so contributing to their pollution. In such marginal areas, occupied by the relatively poor, management is absent, services and water security are scarce and continued unregulated growth worsens such problems. Climate change is likely to contribute to accelerated rural-urban migration and greater pressure on urban areas.

The socio-economic impacts of poverty and environmental degradation are greatest in urban areas since many low-income residents live in marginal areas, have restricted ability (whether savings, insurance, or social ties) to cope with crises. Indirect costs include households' reduced ability to pay school fees, resulting in children missing school, additional costs for health care from an increased incidence of water and vector-borne diseases, but reduced ability to purchase food and medicine. These issues are particularly problematic in the larger towns of Melanesia and in the smaller but distinctly urban centres of the atoll states where population densities are some of the highest in the world, and where interest in international migration has consequently grown.

8.2.8 The atoll 'problem'

Atoll states are prone to a range of hazards that exist elsewhere – from cyclones to tsunamis – and islanders are less easily able to mitigate such hazards, or, without high ground, retreat from them (Connell 2015b). An additional problem is that of water shortages, where lenses are under increased pressure and rainfall is intermittent. The 'transport stranglehold' has been a constraint to development, with the rise of container shipping and the decline of the copra trade, resulting in ships simply bypassing many atoll islands, so that exporting and importing goods is difficult and even relief supplies are inaccessible. Air services have likewise bypassed these islands and often failed economically, because of low and irregular volumes of passengers and freight, high maintenance and fuel costs and metropolitan competition. The multiple problems of development in Commonwealth Pacific small states are thus multiplied further in the atoll states, and emphasise the recourse to migration.

Kiribati and Tuvalu, formerly the British colony of the Gilbert and Ellice Islands, have not had unconstrained migration outlets, such as that enjoyed by the other Pacific atoll states of Marshall Islands and Tokelau (to the United States and New Zealand, respectively). Kiribati and Tuvalu thus face significant development problems, having long being seen as 'islands on the poverty line' with weak economies, where the prospects of economic growth are exceptionally poor. These Commonwealth Pacific small states also have growing populations that are increasingly moving into the capital atolls of Tarawa and Funafuti.

However, Tuvalu, like other Polynesian states, has achieved a greater degree of permanent migration to New Zealand so that urban pressures are rather less in

Funafuti than in Tarawa. There urban problems have reached crisis proportions – a 'perfect storm' of economic problems that have been intensified by environmental changes and extreme pressure on scarce resources such as water (Storey and Hunter 2010). Extremely limited livelihoods, a long history of problematic population pressure on resources, very high unemployment rates, rising expectations and half a century of training for migration (as seamen, and belatedly seawomen) have focused expectations outwards.

The converse of the extremes of urbanisation in the atoll states is depopulation of the outer islands in itself a relatively new concept in the Pacific; as employment is not created, skilled workers are reluctant to be posted there and service delivery is limited (Connell 2013b). Almost every Pacific atoll, other than the urban centres of the atoll states, is losing population. The margins of every atoll state are contracting. In the atoll states, and on coral atolls more generally, migration is now part of the 'culture of migration' (Connell 2008) that contributes to a flow of remittances. Where migration opportunities are blocked, for whatever reason, then livelihoods are actually threatened, as in the case of the densely populated Carteret Islands in PNG (Connell 2016). The present and future of atolls and atoll states is of particular consequence in the region, because of the significance of economic challenges, but also because of the imminence of anticipated environmental threats to livelihoods, with ongoing climate change.

Indeed, atolls are most vulnerable to climate change, since they are small in area and low-lying, and populations are growing (especially in Kiribati), livelihoods are already limited, and the demand for migration is considerable. Livelihoods are likely to worsen and the demand for migration to increase. While atolls are ubiquitously at risk, for those atolls in high island countries, such as PNG and Solomon Islands, there are possible internal migration opportunities.

8.3 The impact of climate change

Small island states are some of the most vulnerable countries of the world to the adverse impacts of climate change, and the Pacific, and particularly the low-lying coral islands, is a particularly vulnerable region. Climate change is already disproportionately affecting the Pacific. Most islands are experiencing climate change impacts on communities, infrastructure, water supply, coastal and forest ecosystems, fisheries, agriculture, and human health. The consequences of sea level rise, sea temperature increases, ocean acidification, coral reef bleaching, altered rainfall patterns, and temperature rise will be increasingly felt. By 2050, mean temperatures in the Pacific islands are expected to increase by between 0.8 and 1.4°C and mean rainfall is also likely to increase slightly. Sea level rise is expected to be somewhat higher than the global average, in the range of 0.17 m to 0.38 m by 2050 (World Bank 2016a).

Some projected effects of climate change on the Pacific region include ocean warming, more frequent and more intense tropical cyclones, flash floods and droughts, which will have an impact on food production systems (Bell *et al.* 2016; World Bank 2016a). Storms and cyclones are likely to become a greater threat to islands as their intensity

increases and as they extend further beyond their usual climatic range (with Cyclone Pam in Vanuatu in 2015 and Cyclone Winston in Fiji in 2016 harmful precedents). Local food production is vital especially to those islands where the majority of people depend on subsistence agriculture for food security and sovereignty. Extended periods of drought and, on the other hand, loss of soil fertility and degradation as a result of increased precipitation, will negatively affect agriculture and food security. The impact on fisheries may be considerable as fisheries contribute significantly to GDP and subsistence livelihoods in many Commonwealth Pacific small states. More intense cyclones and a rise in sea surface temperatures will negatively impact inshore fisheries and food supply, especially in rural areas. This change is most likely to occur before significant changes to agriculture because of the mobility of marine species and the fragility of coral ecosystems, where bleaching has already occurred.

Climate change is expected to cause serious degradation of the coastal environment and natural resources on which many people depend, which will be accentuated where substantial 'coastal squeeze' has occurred and marine ecosystems are already degraded, as in low-lying coastal sites with inadequate environmental management, where flood problems are increasing. Low-lying urban areas, such as Funafuti and Tarawa, and also Nadi and Apia, are particularly at risk because of the existence of high-density, relatively poor migrant populations in low-lying, marginal coastal areas. Significant problems may be first experienced in the western Pacific where current sea level rise in fastest (Nunn 2013).

None of the Commonwealth Pacific small states will be exempt from the impact of climate change, which will adversely affect future livelihoods. Most are already vulnerable to coastal flooding and salinisation, especially where mangroves have been cleared. Higher rates of erosion and coastal land loss are expected as a consequence of projected increases in sea level. Once again, stresses will be most acute on coral atolls; a one metre rise in sea level would make the majority of land in the atoll states vulnerable to flooding, and the atoll states (and all individual atolls) offer no land where withdrawal is possible.

Climate change, coupled with current anthropogenic stresses, especially in urban areas, will compromise options for sustainable development. Water resources are extremely vulnerable, especially on atolls where lenses are more likely to be affected by saline intrusion, and will increase vulnerability, especially in urban areas (Storey and Hunter 2010; Connell 2013b). Reliance on rainfall increases the vulnerability of Pacific Island countries (PICs) to future change in distribution of rainfall. Climate models show that a 10 per cent reduction in average rainfall by 2050 is likely to correspond to a 20 per cent reduction in the size of freshwater lens on Tarawa (Australian Bureau of Meteorology and CSIRO 2014). Furthermore, a decline in the size of the islands, resulting from land loss accompanying sea level rise, is expected to reduce the volume of the freshwater lens on atolls, even rendering small islands effectively uninhabitable. By 2050, some small Pacific islands may well have disappeared.

Climate change has so far contributed to some limited changes in ecology rather than to new human settlement patterns, but as climate change continues on its present

trajectory it is likely to make the development and maintenance of sustainable livelihoods more difficult and increase the need and demand for migration and resettlement.

Continued rural-urban migration, especially from the outer islands of Tuvalu to the urban centres of Funafuti, has increased the vulnerability of these urban islands, as populations settle in marginal areas and physical changes (such as causeway construction and gravel mining) are made to the atolls, further threatening the 'natural' environment. Many such marginal areas have only been recently settled. In Kiribati, the combination of a relatively high population growth rate and steady rural-urban migration has substantially increased the extent of risk.

However, beyond atoll states, richer people often live at higher altitudes and poorer people on reclaimed (therefore at risk) land, as in, for example, Apia and Nuku'alofa. Recent urban migrants in these towns, as in Tarawa and Funafuti, are often in particularly flood-prone areas. This means that the poor are more likely to be at risk, yet the poor are less easily able to cope (including through the possession of skills that might be useful, or possession of land and other resources elsewhere, that may offer alternatives), while they are often ignored in consultation and policy formation.

8.3.1 Climate-induced migration

While migration in Commonwealth Pacific small states remains primarily an economic phenomenon, environmental factors may gradually become more significant, especially if changes become catastrophic. Even in atoll states an economic rationale underpins anticipated or existing migration (Shen and Gemenne 2011; Shen and Binns 2012; Connell 2013b; Corendea *et al.* 2015) and environmental degradation will simply enhance these factors. Hazards such as cyclones in Vanuatu in 2015 and Fiji in 2016 have proved recent catalysts for migration. Volcanic eruptions and tsunamis, as in the Solomon Islands in 2007 and Samoa in 2009, have had similar but more localised effects. Climate change, however, while stimulating more frequent and more intense cyclones, is likely to be a factor in contributing to slow onset migration.

Again, even in the atoll states, where livelihoods are difficult and vulnerability considerable, most people do not seek to migrate permanently or seek to migrate at all (Paton and Fairbairn-Dunlop 2010; Mortreux and Barnett 2009), hence numbers of potential migrants will continue to be much lower than national and island populations (unless the risk becomes very substantial). Many would prefer to move locally, if they have to, and would prefer to return if they could and few if any lose a sense of an island home. Migration and especially relocation are usually seen as responses of last resort (Corendea *et al*. 2015) Nonetheless, that 'last resort' may not be far distant in some places. Thus, the Kiribati Government has stressed that

> '*We can, as a nation make the decision to begin and step up discussions on the real possibility that the nation and its people will have to face relocation to another country in the near future*' (Government of Kiribati 2013)

Climate change and environmental degradation, associated with water scarcity and population growth, are likely to put new pressures on human mobility, and increase

the demand for migration and resettlement. Climate change will endanger livelihoods and potentially exacerbate political stability. That may in turn precipitate serious local and regional challenges to livelihoods and create instability and insecurity within and beyond the region, a challenge that has been long recognised (Connell 1993). The worst-case United Nations projections of climate disruption point to up to 150 million displaced people by 2050. Some of these are likely to be from the Pacific, but while the Pacific numbers will be significant in regional terms and for the atoll states particularly, at a global scale they will constitute a small percentage of all those displaced. That may weaken their ability to attract global interest and concern. For that reason, among others, small island states, especially in the Pacific, have taken the lead in international forums to combat climate change.

Furthermore, national governments in the Pacific lack the capacity to respond effectively to major disruptions. The capacity of developed countries and international aid organisations to respond is likely to be crucial but that will depend on complex governance and political issues in developed countries, especially those around the Pacific. This will demand policy solutions that cut across levels of governance and unite traditionally distinct fields such as diplomacy, development and security. It is difficult to distinguish people who have moved because of climate change, especially since people usually move for multiple reasons, and legal claims to environmental refugee status in New Zealand have thus far been rejected, but the probable greater role of environmental issues in migration will raise issues of ethics, human rights and responsibility.

8.3.2 Resettlement

Over the next three decades it is likely that the need for resettlement of some Commonwealth Pacific small states' populations from low-lying areas will become critical. Indeed, it is widely assumed that climate change and other environmental changes will make this essential and inevitable. Past resettlement schemes in the region provide unpromising precedents. Resettlement programmes have existed in the Pacific at least since the 1930s when people from the densely populated Gilbert Islands chain (Kiribati) were resettled in the Phoenix Islands, and later moved on to the Solomon Islands, and from Banaba[2] to Rabi (Fiji). These international movements, of people experiencing drought and reduced livelihoods, occurred within and between British possessions in colonial times. While the resettlement from Banaba has been relatively successful, since an 'empty' island without local claimants was available and at the time involved no more than about 1,000 people (Connell and Tabucanon 2015), 70 years later, uncertainty still reigns over land tenure (McAdam 2012). Subsequent resettlement after volcanic eruptions and tsunamis (and the forced migration from military and mine sites) have largely been unsuccessful (Connell 2012, 2013a; Fitzpatrick 2013; Donner 2015), with migrants seeking to return home, land disputes intensifying, friction occurring with nearby people and challenges in adapting to different ecological zones and cultures.

The case of Manam and the Carteret Islands in PNG, which have experienced what amount to rapid and slow onset environmental (and economic) changes respectively,

illustrate the typical problems of resettlement. The forced migration and 'temporary' resettlement of the Manam population after a volcanic eruption in 2004 and several attempts at resettlement of Carteret Islanders living at very high densities on a very small atoll, have proved unsuccessful. Efforts of resettlement in both cases have been thwarted by 'host' landowners, the impossibility of gaining adequate access to land and land rights and government inactivity, even after, in the case of the Carterets, half a century of attempts, and in the case of Manam, urgent needs. More than a decade after Manam was evacuated following volcanic eruption, most of the 10,000 Manam islanders remain in 'temporary care centres' with impoverished livelihoods (Connell and Lutkehaus 2016, 2017). While Manam Islanders were offered land 40 km inland, the site was difficult to access, relocation required significant cultural changes and there were no resources to develop the site. Such relative failures in resettlement raise questions of citizenship, ethics and morality and bode poorly for future resettlement needs.

Inability to resettle in national contexts raises issues of ambiguity, identity and citizenship. The problems experienced by quite small population groups moving short distances in similar cultural contexts are indicative of the potential future problems facing environmental migrants (Connell and Lutkehaus 2016). Settlers have been perceived as outsiders and rival claimants to valuable coastal resources. Although Kiribati has purchased a small island in Fiji, with a view to possible resettlement, the 'welcome' that might be attached to the migration of i-Kiribati is likely to be ambiguous. Moreover, resettlement is largely viewed as a form of surrender, whereby culture, land, history and ancestors are simultaneously abandoned, a situation to be avoided at almost all costs (Rudiak-Gould 2013). That in itself limits the response to resettlement needs.

Multiple factors explain the limited success or simply the lack of past relocations, centred on the political will to plan, finance and conduct relocation, land tenure traditions that prevent the lease or sale of land, and the increased value of coastal land. Landowners have been increasingly reluctant to cede land to others, however moral and worthy their claims, even when they shared kinship ties or exchange relationships, especially as their own populations and needs have grown. Neighbours are not necessarily friends. In the atoll states, despite the possibility of some relocation in Kiribati from the Tungaru chain to Kiritimati (a short-term and costly strategy at best), no land is available for long-term resettlement irrespective of land tenure. Significantly in most cases, even during volcanic eruptions, a significant proportion of people at risk do not want to leave their homes and their islands (Connell and Lutkehaus 2016). That has resulted in an ambiguity that counters effective resettlement planning.

Slow onset climate change offers the option of forward planning. However, as the experience of the Carteret Islands suggests, governments have other priorities and interests that discourage the development of challenging future resettlement plans. At the moment, without some significant political and cultural changes, there is little likelihood of effective resettlement within the Pacific region. In the Solomon Islands, while the Provincial Government of Malaita has offered land to the approximately

2,000 people of the two atolls of Ontong Java and Sikaiana, both of which have expressed a wish for relocation to a higher island, Malaita has little 'spare' land and there are significant cultural differences. The offer has yet to be tested. The Carteret Islands and Manam are problematic precursors for the future of resettlement in the region.

When environmental pressures become more challenging it is likely that solutions will have to be found outside the region. That too raises problems. In the 1950s, after phosphate mining had degraded the island, Australia offered Nauru the possibility of settling on an island off the Australian coast, and effectively having an island to themselves, much as had occurred with the rather smaller population of Banaba, on the similar assumption that their island would become as uninhabitable as had Banaba. The option was eventually rejected by the Nauruans, at a time when their national income was substantial and they feared a loss of identity and culture (Tabucanon and Opeskin 2011). At much the same time, New Zealand embarked on an ambitious scheme to resettle the population of one of its Pacific territories, Tokelau, which was then experiencing cyclones and overcrowding, and half the population did move to New Zealand (Wessen *et al.* 1992). While these cases may be seen as a precedent for the future of island states and communities facing serious environmental threats, it now seems very unlikely (despite the Kiribati purchase of an island in Fiji), that such offers and programmes would be repeated, given the global context.

Elsewhere in the world current migration and displacement linked to climate change are primarily internal, with people moving within their own countries, and the people affected mostly remaining the responsibility of their existing country, since international moves tend to be costly, risky and require advance planning. Such small-scale moves have occurred in Fiji, and elsewhere, after localised environmental changes. As populations and pressure on land increases, that will often not be possible.

Where people have crossed borders as a result of climate change, as in parts of Africa, they usually move to neighbouring countries. That too will rarely be possible in the Pacific. On a small scale Niue, where the population is declining, has encouraged migration from Tuvalu and one village in Niue now has a small Tuvaluan population. It is unlikely that this could be replicated there or elsewhere in the region on a larger scale, as land values increase, despite it being a model, albeit limited, of interregional co-operation. National governance regarding environmental migration is also nascent at best.

Finally, atoll states have attempted to reclaim land for residential use. This is extremely expensive. Only the expansion of Ebeye in the Marshall Islands is likely to provide a significant stock of land, but at a cost that would not be feasible in the Commonwealth Pacific atoll states. Such geoengineering 'solutions' are unlikely to be of utility to cope with climate change displacement (and the very small-scale reclamations that do exist have often shifted erosion problems elsewhere). Any prospect of significant geoengineering in atolls is likely to be quickly ruled out because of the high costs on low-lying sinuous atolls, and even some 'soft' options, such as mangrove planting and beach nourishment, are unlikely to be successful.

8.4 Key responses and opportunities

Demand for migration is likely to become more important in the future for a combination of social, economic and environmental reasons, including climate change. It will therefore be necessary for Commonwealth Pacific small states to maintain and develop strategies that benefit most effectively from all opportunities for migration, and to seek out other possible opportunities, especially in a context where developed countries have become less than enthusiastic about most forms of immigration, and especially those of refugees and the unskilled.

8.4.1 Skilled migration

Acquiring marketable skills has played a valuable role in enabling migrants to gain better jobs. The atoll states of Tuvalu and Kiribati are unusual in their long-established policy of training workers for migration since the 1960s as 'seafarers', initially men and subsequently also women. Fiji and Vanuatu also train workers as seafarers. That has been the start of greater interest in and a wider process of training people for migration to achieve 'migration with dignity', that is employment in occupations which enable some degree of self-esteem and higher incomes than in low status, low income, entry-level positions, and are also likely to offer some permanency and prospects and enable a more substantial flow of remittances.

Most Commonwealth Pacific small states have given increased attention to training workers for employment either overseas or at home and Technical and Vocational Education and Training has been upgraded in several countries (such as Kiribati) in recognition of the need for more skills. Nonetheless most countries experience a shortage of various skills for immediate national needs. Improving the quality of training in PICs both enables local employment and offers internationally recognised qualifications that would enable access to additional skilled labour market opportunities in Australia, New Zealand and also elsewhere. There have been at least two new initiatives in the past decade (beyond marine training initiatives), such as the multinational Australia-Pacific Technical College (APTC) and the Kiribati Australia Nursing Initiative (KANI).

APTC has branches in Fiji, Samoa, Vanuatu, PNG and Solomon Islands (and links from Kiribati and Tonga), assisting Pacific island students to gain Australian skills and qualifications in a variety of trade areas. While ostensibly the programme upgrades local skills, an international qualification enables graduates to migrate more easily. Workers with such qualifications are likely to be attractive to overseas employers, although in the first few years almost all the graduates remained in their home countries.

KANI is a sectoral training scheme, where i-Kiribati nurses have been trained in Australia, principally to remain there and generate remittances rather than transfer superior skills to Kiribati. The programme was a response to Kiribati's concerns about climate change, youth unemployment and the need to give i-Kiribati the opportunity to gain internationally recognised qualifications. KANI has proved an extremely expensive programme, with doubtful benefits other than for the graduates, and it

is unlikely that such schemes will be repeated. Beyond the seafarer schemes such training programmes have been valuable yet costly, and have yet to contribute to migration with dignity – although interest in skilled migration is considerable.

Significant labour shortages exist in both Australia and New Zealand (and Japan, the United Kingdom and other metropolitan countries) for such jobs as nurses, carers, and in the hospitality industry. All the available evidence suggests that demand in these sectors will continue to grow and will not be met by domestic workers, as in Australia (e.g. Negin *et al*. 2016). Many Pacific islanders have already taken up such employment at home or abroad, and the expansion of short-term and long-term employment for Pacific islanders in these areas would be extremely beneficial. A strong case has been made for this in New Zealand (Callister *et al*. 2009), and the case is equally strong elsewhere, at least in Australia. Real gains exist in opening up the caring and hospitality industries to migrant workers from the Commonwealth Pacific small states.

The focus on international migration from the Pacific has hitherto primarily centred on New Zealand and Australia (and to a much lesser extent the United States). Canada has had a limited history of Pacific regional migration, almost exclusively from Fiji. Increasingly other countries are becoming involved in the Pacific region and several of these – notably Japan (where there is a small Pacific migrant flow), Taiwan, Korea and Malaysia are countries where labour opportunities exist. These might be investigated, despite competition in those labour markets, rather than maintain the present two- or three-country focus. Likewise, there are even possible opportunities within the Pacific region. The Commonwealth of the Northern Marianas employs migrant labour, mainly from Asia, in employment sectors ranging from agriculture, through hospitality to the casino industry. It might be possible for governments of countries like Nauru and Kiribati, fellow Micronesians, to negotiate for some of those employment opportunities to be reserved for them. There may therefore be more scope than is usually assumed for mobility within the Pacific region.

In both sending and receiving countries this raises ethical questions over how to focus opportunities on the most 'deserving' – countries, people and places—in circumstances where demand for migration is considerable and migration opportunities have often shifted towards the better placed, as in temporary labour migration from Vanuatu. It also raises 'management' questions about whether people from places experiencing economic and/or environmental stress, such as climate change, are necessarily well placed to respond to and contribute to such opportunities. Would particular training regimes need to be put in place? Why should potential recipient countries give priority to the needs of Pacific island countries? At the same time, it is apparent that not all migrant employment opportunities are necessarily particularly attractive, notably some parts of the international fishing industry where labour exploitation is rife. Seeking to obtain overseas employment should not become a 'race to the bottom'.

In addition, the loss of skilled workers has raised questions about whether migration constitutes a brain drain of unacceptable proportions that hampers national development. Small states lose disproportionately more skills than larger states; they are more successful at producing skilled workers but less successful in retaining

them. Losses of skilled labour have become serious in several Commonwealth Pacific small states, but perhaps especially in some of the smallest, despite their needing few skilled workers, paradoxically because of the challenge of recruiting and training very small numbers. Additionally, skilled workers are often frustrated with limited promotion opportunities at home (inevitably restricted in small PICs), inadequate access to technology, materials and further training, and a perceived lack of recognition (Connell 2009, 2014). Ironically, many migrants become part of a 'brain loss' or 'brain waste' because their qualifications, despite gaining them entry, are deemed inadequate for employment in the destination: a lost investment in human capital that has been particularly true in the PICs, with the 'loss' of nurses who become carers in destination countries – a poor labour market outcome. Skilled migration is unlikely to decrease, given worsening metropolitan skilled worker shortages in the 'standard' destinations, and increased shortages in newer, more distant markets. Limited return migration has not remedied this problem and remittances may not always compensate for skill drains.

8.4.2 Seasonal worker schemes

In the past decade a number of small-scale temporary worker migration schemes have been introduced in the Pacific region, between Pacific island countries and Australia and New Zealand. Such schemes have been seen as potential prototypes for other schemes and for programmes that might be effective in terms of addressing the need for migration as adaptation in the face of short-term hazards and slow onset climate change.

Existing schemes

Seasonal worker schemes in the Pacific were introduced in New Zealand in the 1960s, to give opportunities to Pacific islanders to work for short periods in agriculture and provide mainly harvest labour to farmers. However New Zealand faced substantial overstayer problems and the schemes were short-lived (Macpherson 1981). Loosely modelled on the Caribbean-Canada scheme, and encouraged by the World Bank (World Bank 2006), the Recognised Seasonal Employer (RSE) scheme began in New Zealand in 2007 and was followed in 2008 by a smaller-scale Australian scheme, both centred on the employment of agricultural workers for up to seven months in a year, in such activities as fruit picking. New Zealand allows up to 9,500 migrant workers in a single year, and although Australia has no cap, numbers have been much lower.

New Zealand's RSE scheme has been largely regarded as a success, both for its role as a development initiative, and because access to income for Pacific islanders is the cornerstone of a 'triple win' scenario that benefits New Zealand, through filling labour shortages; benefits Pacific island countries, through the provision of employment for some of the population, and benefits the RSE workers themselves and their families. Australia has provided rather fewer places – partly because it is more fragmented geographically and institutionally than New Zealand - and there has been concern over wage rates, adequate accommodation and exploitation, but broadly similar outcomes have resulted. The overall benefits have been largely positive (Gibson *et al.*

2014), despite some social costs, and indicate that its expansion numerically and geographically would secure further comprehensive benefits.

Tonga and Vanuatu have taken greatest advantage of the scheme. In 2013-2014, both Vanuatu and Tonga had more than 3,000 workers out of a total of 8,000 in both destinations. By contrast, Tuvalu and Kiribati have only been marginally involved, disadvantaged by distance and transport costs, unfamiliarity and the difficulty of obtaining visa and passports, with potential workers lacking some basic skills, English language proficiency and the ability to develop workplace links necessary to smooth migration (Bedford and Bedford 2010). Likewise, PNG has only been involved in the Australian scheme. Although about 600 workers have gone to Australia from PNG, this is a trivial proportion of the national population. Nauruans are disadvantaged by having no agricultural skills or a relevant work ethic.

Take-up of the Australian Seasonal Worker Program (SWP) scheme is increasing but has been very slow. For the scheme to expand, the Australian Government would need to promote it more vigorously, and reduce the financial and compliance costs. Most growers rely mainly on backpackers, whose numbers increased significantly in the 2000s, but have fallen substantially since 2012. Despite issues with exploitation and suspect labour hire practices for foreign workers, Australia expanded the SWP early in 2016 to help deal with farm labour shortages.

There is scope for these types of schemes to be used more effectively by sending countries to ensure that they contribute to equity and give preference to workers from disadvantaged regions. Overall it has mainly benefited relatively small numbers of Pacific islanders but has provided real benefits to them whereas issues of equity and regional development remain.

Commonwealth Pacific small states have sought more opportunities under such temporary migration schemes (mainly in terms of increasing numbers but also through extension of the scheme to other employment categories). Fewer employment opportunities have been provided in Australia despite the agricultural sector being much larger there than in New Zealand. Nonetheless, policy changes in both destination countries would be required to give more opportunities to migrants from Commonwealth Pacific small states. Kiribati and Tuvalu would benefit especially from more access (beyond the present 1-5% of their populations) given downturn in demand for maritime labour (and limited alternative domestic employment).

The ability of agriculture in New Zealand and Australia to absorb additional numbers of Pacific seasonal workers is limited (though in both countries, and especially Australia, there are possibilities for expansion). Pacific seasonal workers can earn more in Australia than in New Zealand, hence there is a preference for Australia. Wages in agriculture are low (at least by New Zealand and Australian standards), workers have been exploited, there has been resistance to union involvement to improve the status and circumstances of migrant employment, and, most recently, Australia has given greater preference to backpackers.

Underpinning short-term issues is the wider issue of whether temporary migration (even with return) is a real contribution to development in Commonwealth Pacific

small states or whether it is a substitute for more inclusive, stable and long-term migration opportunities that may be much more beneficial. Moreover, over time the very slowly increasing numbers, and their concentration in particular places, indicates that the much-vaunted win-win may be becoming rather more narrow. Ensuring that the schemes continue to provide wide-ranging benefits, which will support their further extension in time, space and sector, will be a considerable challenge. However, the convening of an inaugural Pacific Labour Mobility Annual Meeting in 2016, under the aegis of the Pacific Islands Forum Secretariat, is a welcome development that has the potential to market workers more effectively, ensure that employment conditions are not exploitative, seek out new opportunities, and monitor the overall effectiveness of existing and future schemes.

Potential schemes

Both in New Zealand and Australia, there has been extensive discussion of the potential for extending seasonal worker schemes into other sectors of the economy (and other agricultural sectors), and discussions have generally centred on caring, tourism and mining. In New Zealand particularly this has also involved the fishing industry.

A long history has accompanied the possibility of increased numbers of Pacific island (and other) migrants being involved in care giving (Callister *et al*. 2009) at a time when the unsatisfied demand for caregivers is steadily increasing and a high proportion of all jobs in caring are held by new migrants from a range of 'non-traditional' source countries (Negin *et al*. 2016; see also World Bank 2016b). It is highly likely that migrants from Commonwealth Pacific small states will enter this sector in significant numbers in future years.

Currently, Australia has a significant labour shortage in the hospitality industry (which is expected to increase to 120,000 by the end of the decade), partly because of the decline in working holiday visas. Part of that shortage is in the Northern Territory which has the lowest unemployment rate in Australia, and which decided to introduce a two-year 'microstate visa', which would create jobs for Pacific islanders in a region where Australia has sought to develop agriculture and other activities oriented to an Asian market. The visa will provide some additional employment opportunities in lower-skilled jobs through a five-year pilot programme to provide up to 250 citizens (around 50 per year) from Kiribati, Nauru and Tuvalu, the three 'orphan microstates'. These will centre on non-seasonal occupations in tourism/hospitality and age care. A year after its initiation there had been no evidence of islanders being able to take up any of these new positions, but both tourism and caregiving may provide real opportunities.

Kiribati and Tuvalu are pilot countries in New Zealand for skilled employment opportunities in the fisheries sector. Numbers had not been decided on as of mid-2016, while requests from Vanuatu to participate had been rejected, indicating that numbers were likely to be small. Likewise, there has been previous consideration of the employment of Pacific islanders in the Australian fishing industry (Connell 2015c), but it has never proceeded to policy formation. In the maritime context, cruise ships

briefly provided employment opportunities for about 120 I-Kiribati women, between 2004 and 2012. Once again numbers were small and management was challenging (Kagan 2016). In such circumstances the World Bank has recommended that both Australia and New Zealand could provide open-access migration for Kiribati and Tuvalu, because of the particular disadvantages of those two countries and the likelihood that numbers would be quite small (World Bank 2016b).

Small numbers and administrative problems are indicative of the constant underlying structural problems for small, remote nations engaging with distant and uncertain labour markets. A further difficulty is that, unlike agricultural employment, work in most such activities is not seasonal (and thus may result in permanent employment, hence the hesitation of potential destination countries), requires more skills beyond those currently held by most Pacific islanders, and other larger countries are better placed to compete. In every case, Pacific islanders are likely to face competition from others, mainly from Asia (or those on working holiday visas) with relevant training, skills and experience, and in rather larger numbers. There is no particular reason why destination governments or employers would necessarily wish to give priority to Pacific islanders.

Pacific island countries have also sought to broaden the scope of the regional trade agreement, Pacific Agreement on Closer Economic Relations (PACER Plus) that is being negotiated in the region, to include arrangements for the greater regional mobility of more skilled labour, especially to New Zealand and Australia. However, improved mobility of skilled and semi-skilled workers has largely been resisted by potential destination countries. In addition, a brain drain would be a possible outcome of significant relaxation of constraints on migration, which might have negative impacts. That raises wider questions over the benefits of scaling up temporary employment opportunities, for more people, in more skilled categories and for longer periods, and in new labour markets. Yet real options remain scarce, numbers are small and most migration remains voluntary through family reunions so that most remittances come from established migrants (despite the substantial one-off earnings of seasonal workers). Employment opportunities are scarce, require skills, and are particularly difficult to access from more remote Commonwealth Pacific small states.

8.5 Key issues and challenges

Underpinning new challenges that will emerge from shifts in global and local economies, and environmental changes brought on by climate change, are broader issues concerning the present relationship between migration and development. A broad policy debate concerns the role of international migration, and social and economic remittances, in contributing to development, and centres on the extent to which migration can be considered the most effective means of reducing poverty and inequality, coping with environmental threats and stimulating sustainable development. Policy discussion in richer countries on measures to address issues of poverty and inequality in poor countries remains focused on foreign aid programmes, with virtually no discussion of how immigration policies might play an important role in poverty alleviation and development. An exception has been the ongoing

policy discussion of guest worker schemes in Australia and New Zealand and their potential role in the promotion of development in the migrant-sending countries, in terms of both the associated remittance flows and human capital gains (e.g. Gibson *et al*. 2014). Broader policy debates are largely absent in the region but they will be critical as climate change and global economic shifts occur and the need to move towards the Sustainable Development Goals becomes more crucial.

Creating national economies that offer secure and pleasant livelihoods, which reduce the interest in and need for migration, will be invaluable though difficult. Despite the fact that there is enthusiastic competition for the lottery schemes that New Zealand runs for potential migrants, and it is far in excess of the opportunities, in the end most people actually prefer to remain in their home islands (even in small islands like the Carteret Islands and Manam). Ensuring that livelihoods are generated that will enable them to do that, and even dampen demand for migration, are now critical but will be a major challenge. Adequate service delivery is a priority and urban planning and management are crucial.

In contrast to the situation in developed countries, promotion of emigration of workers from developing countries has become an important policy issue for governments. Several large Asian countries, such as the Philippines and Bangladesh, have preceded Pacific island countries in marketing labour, and negotiating international agreements for labour export to rich countries. In every case this is primarily designed to increase the flow of remittances, but raises questions over whether people are more valued as migrants or as citizens and more basic questions about the use of remittances and the alternatives to a focus on migration. The politics, philosophy and economics of migration are inseparable, and emphasise how migration opportunities are significantly controlled in destination states and how Pacific island countries are increasingly concerned about securing better migration prospects. Migration is now increasingly about political negotiations as much as individual and household aspirations.

Even discussion of the mechanics of migration and remittances has been limited in the region, and has tended to be directed by outside agencies. It is necessary, as migration may become even more critical, that Commonwealth Pacific small states are more directly involved. Recent decades have seen many states pursue closer relations with migrant groups and allocate them various rights, in a bid to derive economic and political benefits from them, both of skills and resources - one component of 'diaspora strategies' (Gamlen 2012). However, outside New Zealand dependencies, migrants from Commonwealth Pacific small states have largely ignored the development of policies that might better be directed towards the increased facilitation of and returns on remittances, through various financial policies or simply facilitating technological innovations that reduce remittance costs, including transfers via mobile phones, now in widespread use. More formally engaging with and supporting migrants is invaluable, but is a major philosophical and political challenge.

While many countries are grappling with a hierarchy of needs that puts climate risk close to the bottom and prioritises immediate economic issues, the Nansen Initiative was launched in 2012 to seek to build a consensus among states on how to address and manage population displacement in the context of environmental

change from either short-term events or slow onset disasters. A set of principles was developed that focused on the need for sophisticated knowledge, the respective roles and responsibilities of stakeholders (that included states, communities, civil society and the private sector) and the need for solutions that were coherent and respected international law. These principles envisaged the involvement of those most at risk, centred on adaptation as close as possible to the 'home' area and sought to stress humanitarian principles. That has been developed further by the Pacific Islands Forum Secretariat initiating a Pacific Network on Climate Change Migration, Displacement and Resettlement to co-ordinate policy advice. That is a promising innovation that is likely to be of increasing value.

None of the Commonwealth Pacific small states have developed good procedures for internal relocation, including dealing with land issues, and most 'forced' internal migrants, such as the Manam Islanders, are at some disadvantage. Indeed, in most of the countries, it is not clear which government agencies might be responsible for relocation and resettlement of migrants displaced by environmental change. Usually this is seen as the scope of a 'disasters agency' if there is one (as in PNG) but such agencies are often underfunded, unable to be proactive, and compete with other national and provincial agencies and interests (again, as in PNG).

Land issues have constrained internal migration and resettlement throughout the Pacific region, and access to land is more difficult now than at any time in the past (other than by large state interests for commercial purposes). Only Fiji offers some resettlement opportunities. Established local, regional and transnational networks ease processes of migration and settlement. Slow and steady migration and resettlement, the ability of the people themselves to participate in decision-making, the possibility of some people remaining at home and, in the end, the greater capacity of local people to resist displacement and mitigate environmental change, the greater the chance of success. Yet there is always a danger of being too slow. Time and timing are of the essence.

The increasingly permanent international migration of people from Commonwealth Pacific small states, including some from vulnerable communities, to New Zealand, the United States and to a lesser extent Australia, has largely been beneficial for the migrants and for the countries. That effectively stabilised populations, and reduced worsening environmental pressures in several Commonwealth Pacific small states, while remittances have contributed to development and some reduction of poverty. The countries that have benefited least from this are Kiribati and Nauru. For Kiribati, despite training provided for migration as maritime labour or as nurses, there are relatively few i-Kiribati permanently overseas that would encourage permanent migration. In Nauru, training has been largely absent and there are even fewer Nauruans overseas. The recent introduction of the 'microstates visa' in northern Australia heralds a welcome development that might be extended over time and into a range of labour market activities. That there is some flexibility in migration systems is crucial and welcome.

Temporary guest worker migration has provided employment opportunities for up to around 10,000 workers per year, but these opportunities have been unevenly

distributed. Once again Kiribati, and Tuvalu, have been poorly placed to benefit from them. Vanuatu, despite no recent history of international migration, is one of the countries to have benefited most. On a regional scale, since most migration between Pacific island countries and metropolitan states has favoured some Polynesian states (Samoa and Tonga) and, more generally, states with colonial connections to New Zealand and the United States, migration tends to proceed from inequality and contribute further to inequality.

Migration from the Commonwealth Pacific small states may also have been beneficial for the metropolitan destination countries, especially in terms of the migrants filling vacancies in labour markets. It is crucial to emphasise this in circumstances where new opportunities are being sought. Australia and New Zealand remain the most significant and most preferred migration destinations, yet neither country has a vibrant economy that can offer unlimited opportunities for potential new migrants, especially as they move towards more skilled employment structures, related to service industries, while potential migrants from the Pacific are not much more likely to be skilled. Likewise, the global economy is entering into a period of slow growth, hence some of the current problems in Europe regarding perceptions of migration. Future labour markets will also be increasingly skilled and it may be that Pacific islanders will constantly lag in their ability to acquire the skills to take up such positions. Other than in the health sector (which partly explains interest in taking up training and employment in this area), and despite new initiatives in training programmes in the region, skills are still likely to be 'behind' those that are required in rich world countries. To circumvent this, additional emphasis must be placed on education and training within the Commonwealth Pacific small states.

In Australia particularly, engagement with the Pacific is fading and there has been a broadly populist reaction against refugees that has coincided with a downturn in the mining industry, and the relocation of undocumented migrants to Nauru and Manus (PNG) in contravention of United Nations principles. Neither Australia nor New Zealand perceive that responding to potential threats to livelihoods in the Pacific island region is a matter that demands immediate or urgent attention. It is apparent that other 'great powers', notably China, increasingly play a role in the Pacific region, but that role is most unlikely to result in migration links between the countries, other than minimal movement of students, and potentially an even more substantial flow of Chinese migrants, legal and illegal, into the Pacific region.

Moreover, should climate change continue to evolve in predicted ways, the greatest pressures on livelihoods will quite likely occur in such Asian deltas as those of Bangladesh and Vietnam, which will see global attention centre on the need of hundreds of millions of affected people, rather than the few in the Pacific. That will reduce the likelihood of potential refugee destination countries, such as Australia and New Zealand, giving any form of priority treatment to Pacific islanders. Canada and the United States, with a history of migration from the Pacific, are likely to be similarly focused elsewhere. While there are no obvious reasons why other states should not be involved as labour or settler recipients from Commonwealth Pacific small states, that seems somewhat unlikely on any significant scale. In the context of trade and

aid negotiations the Pacific Islands Forum might enter into discussions with Japan, Korea and Taiwan, to examine the possibility of developing some migration streams to these countries (see also World Bank 2016b). Canada may also offer potential for Commonwealth Pacific small states to be involved in short-term migration, alongside the Caribbean states. Once again, this emphasises that developing the national economies and developing national strategies to mitigate climate change are crucial.

8.5.1 Displacement and resettlement

Environmental problems are worsening in the Pacific and are accentuated by migration into the major urban centres, especially in the atoll states, and by climate change. Urgency, ethics, and the recognition of climate change migration as a 'human rights' issue, indicate the growing importance of developing schemes for people at risk of climate change displacement, much like the situation that already exists on a small scale in some coastal and low-lying areas of the region. Not only does this have obvious moral overtones but it is in various countries' interests in terms of international security (Wyett 2014). Progressive resettlement is necessary but this has so far proved impossible, as the example of the Carteret Islands indicates (Naser 2015; Connell 2016). It remains urgent and ethical to develop adequate policies, and all Commonwealth Pacific small states need to be proactive.

Displacements are necessarily traumatic and may entail impoverishment and (or through) landlessness, unemployment and loss of livelihoods, homelessness, marginalisation, increased morbidity and mortality, food insecurity, loss of access to common property resources, and social disarticulation (Cernea and McDowell 2000). Even just a few such reactions are problematic where island states have weak political economies and acute shortages of capital and skilled human resources to respond. By contrast, the connection between well-managed migration and a reduction in poverty is firmly established, hence migration can play a role in reducing the impacts of both environmental hazards and environmental degradation, and of poverty. It is crucial that migration be an adaptation strategy and not simply a belated response to hazard. Forced migration is inherently destabilising.

Short-distance relocation is preferable since relocation over longer distances raises greater problems of adjustment, especially over international borders, and across different legal regimes (and probably greater financial and social costs). It is particularly difficult to develop adequate legal support and protection for long-distance migrants. However, long-distance migration is currently being chosen by migrant Pacific households since it offers greater possibility of economic security. Even so, potential migrants are poorly informed about employment opportunities (hence problems of deskilling), even in countries like New Zealand, despite a large emigrant network and good communication with 'traditional' source countries like Tonga (Gibson *et al*. 2010). For more distant states, such disadvantages are multiplied considerably.

Migration is not a development panacea and a judicious combination of policies is needed to effectively maximise the benefits. This must be based on reciprocal relationships between countries and places of origin and destination, and would

almost certainly entail significant 'anchor populations' remaining at home as long as this is possible and believed desirable. It would be necessary therefore to create an attractive political, social and economic environment that encourages migrants to remain in contact and be involved in their home countries and islands, to return and to remit and, if feasible, to make investments there. Indeed, it remains true that despite the financial benefits, many Commonwealth Pacific small states are concerned about the social costs attached to a steady outflow of younger people to places like Australia and New Zealand, even when this is only temporary.

It will be more acceptable to societies in both source and destination countries if migration of increasing numbers of Pacific islanders can be managed through a co-ordinated approach to relieving population pressure on islands that may eventually become uninhabitable because of progressive environmental damage. Unfortunately, this comes at a time when opposition to migration in many developed countries is growing, yet proactive solutions are required. The onus for international resettlement unfortunately rests with distant and often reluctant governments (that include climate change sceptics), and coincides and conflicts with the need for a slower managed process and gradual flows, that would also enable migrants and their source countries to make their own decisions about movement in their own time, rather than being victims of a disaster beyond their control. Nonetheless, Commonwealth Pacific small states must manage economies and environments to support those already at risk, and especially manage urban environments and encourage development on outer islands, although reversing the 'urban tide' will be extremely difficult.

Appropriate adaptation policies, some oriented to migration, are beneficial for many reasons unrelated to climate change. This necessitates training, providing valuable skills, to cope at home and abroad, and 'soft technology' solutions such as planting mangroves - a mix of strategies that enable geographically, culturally and economically flexible and diversified livelihoods. Good environmental change mitigation projects focus on such fundamental needs as food and water security, coastal protection and reduction of poverty and inequality, but that requires holistic policy formation. Few of the Commonwealth Pacific small states' governments have been particularly responsive to the needs of the poor and trapped – rather seeing them as the 'problem'—but such people have often moved away from existing impoverished environments and are presently displaced into marginal urban environments. Their needs should be a priority. Minimising the urban 'coastal squeeze' is a related priority. Such adaptive strategies meet local needs, enable retention of culture and reduce the need for unnecessary and problematic migration. The decline of local knowledge has sometimes weakened the approach to developing local responses. Migration is only a secondary, less preferable and more difficult adaptation.

It is appropriate therefore that, before any consideration of 'secondary' mobility and migration strategies and policies, management policies begin 'at home' in order to reduce and mitigate the impacts of hazards and environmental degradation. Commonwealth Pacific small states must develop more effective urban management policies and programmes to minimise urban poverty and environmental degradation. In many cases this may mean actually establishing effective and properly funded urban

agencies that can co-ordinate the delivery of services, and more effective and regular delivery of services – especially health, education and banking – to outer islands to enable them to function more effectively. Developing outer island economies will be a more difficult challenge, and developing appropriate policies and putting them into practice is presently a pious hope. Equally, Commonwealth Pacific small states, where total fertility rates are consistently high, must re-examine the need for more effective population policies.

If such policies can succeed, migration strategies will be rather less urgent and numbers may be somewhat smaller. Furthermore, if population growth is slowed, economic and environmental pressures are reduced. Migration strategies must be linked in to a more broadly-based population policy, especially in Kiribati where the annual rate of population increase remains above 2 per cent. After all, both Kiribati and Tuvalu have fewer people recruited for overseas employment now than they did before the global financial crisis.

It is evident that Commonwealth Pacific small states must develop their own policies and legislation to facilitate particular kinds of migration; that is, from a sending country perspective. The Melanesian Pacific island countries especially need to prepare evacuation/settlement plans, especially for 'at risk' islands, since the response to hazards will be at least initially national, and their absence has hindered the development of new livelihoods for people exposed to sudden hazard events. Many disaster mitigation policies are weak and have little reference or relevance to human mobility.

Proactive environmental migration should be part of a strategy in response to climate change, natural disasters and other forms of environmental degradation and vulnerability. Migration might even directly slow the process of environmental degradation and improve the ability of those who stay to cope (and remittances might benefit this further). Tuvalu has benefited from migration rather more than Kiribati since remittances are greater and the population is growing more slowly. Schemes exist to both increase the flow of remittances (for example through mobile phones) and their utility through various banking schemes. These should be explored further.

More investment is required in skills formation within the Commonwealth Pacific small states to respond to domestic, regional and international demand for labour. Needs range from the statistical to the skills required in expanding hospitality programmes, and other emerging labour market activities. That process has been stimulated by the emergence of the APTC but it could well be expanded, and would be a valuable use of aid.

National development strategies, adequate data collection and training are a prelude to actual migration policies and programmes. Currently migration is increasingly directed southwards in the South Pacific, to New Zealand and Australia, and eastwards in the northern Pacific, to the United States. Policy changes that might enable what amounts to more permanent migration opportunities are also potentially extremely valuable, especially if Australia were to consider preferential migration arrangements for Pacific islanders along the lines of New Zealand's quota-based Pacific permanent

migration schemes. Numbers are small and would pose no problems for a large, multicultural country like Australia.

In these kinds of ways, migration and resettlement may allow for a 'migration with dignity' that will contribute to both sending and receiving countries, rather than a hasty, undignified process with few benefits: ideally early planning and delayed departure. However, contemporary 'departure' for at least temporary employment is important for the states that are most at risk. Achieving many of these objectives, and implementing the recommendations indicated below, will be both costly and challenge many established political systems and often limited political will. Future calamity would become an injustice if those who could have undertaken preventive action were neglectful or simply failed to try. States may well have to adapt, modify and develop laws on migration and settlement, and find new funding sources. That will involve not just states but the Council of Regional Organisations in the Pacific (CROP), led by the Pacific Islands Forum Secretariat, who have potentially a valuable role to play, possibly through the new Pacific Network on Climate Change Migration, Displacement and Resettlement. It is crucial that multidisciplinary research continues on the best means of resettlement, primarily focusing on where resettlement has already occurred, but also on where attempts have been thwarted. That will require work in both metropolitan and Pacific island states. It is essential that such research, planning, thinking and restructuring begin now. It is a moral obligation. Otherwise the settlement margins may fade further and populations be more concentrated in unmanageable urban areas.

8.5.2 Data for evidence-based policy

For adequate migration policy formation and practical implementation appropriate data are essential, although it is not data deficiencies that have slowed policy formation. Pacific island countries have generally been blessed with good centralised statistical and demographic services, hence data on population growth and, to a lesser extent, distribution, are both good and up to date, though there is reason to be concerned about accuracy in some places, especially PNG (where the last census produced a significant undercount and was undertaken on a de jure basis). However, statistics are rarely respected, and the need for adequate knowledge of the status of poverty, incomes and livelihoods, and the role of the informal employment sector, is not always well understood. Household income and expenditure surveys need to be encouraged, and preferably standardised, throughout the Commonwealth Pacific small states, and it is essential that they have a spatial component so that the actual distribution of poverty, incomes and livelihoods, for example, can be better understood. In recent years very few studies have been undertaken of either informal settlements or outer islands, and the aspirations of their residents.

A particular concern, and corollary of this, is that the needs of the relatively poor and those displaced or potentially displaced in the region have rarely been afforded adequate attention. This is often a function of time, funds and human resources. Thus, many non-government and international organisations have focused on the Carteret Islands as a particularly urgent problem of 'environmental refugees' and

forced migration, but without ever visiting the islands or talking to the islanders. Indeed, for both Manam and the Carteret Islands, no basic data exist on the numbers of people who require resettlement. The distortions that have followed have posed critical problems in addressing the needs of impoverished islanders successfully, and have been unhelpful for notions of Pacific islander agency. Valuable studies of resettlement in the region are one distinct gap. Many are dated, slight and tendentious and are of inadequate utility to assess the problems and potential of resettlement, even as it become more important. On balance, despite some obvious gaps, a range of valuable data exists, but much is unknown to practitioners and policy-makers. In some contexts, there are no effective mechanisms and forums for exchanging and sharing information and practices; this is particularly evident in the context of urban issues. Even so, some countries are unwilling to collect and/or provide data in some significant areas, such as the local sources of migrants and national selection strategies for seasonal migrant workers. Nonetheless, there is more than enough data in most contexts, even if sometimes buried, for effective policy formation.

8.6 Remaining gaps: Looking to 2050

As is evident from previous sections there has been little commitment in the Pacific region and in the major destination countries to developing more effective migration policies that benefit Pacific islanders, whether these concern local resettlement (as, for example, in PNG) or international migration. Land and other issues have thwarted national policy formation within the Pacific, resettlement has never been accorded any priority (although that now appears to be changing in Fiji at least), while creating more viable rural livelihoods and mitigating the impacts of environmental change has been particularly difficult, especially in atoll states. The 'traditional' destination countries, especially Australia, have made only the most limited provision for Commonwealth Pacific small states, and have focused their migration programmes on skilled migration. Both Australia and New Zealand have made some special provision for the 'orphan states' of Nauru, Kiribati and Tuvalu, but taking up even these opportunities has yet to occur. Numbers and opportunities are few.

Without more effective policy formation and, even more important, its practice, poverty, unemployment, environmental degradation and livelihoods are all likely to worsen in the decades to come. Present directions suggest greater uneven development, especially in the fast-growing urban centres, provoking the tensions, crime and violence that have already occurred in some urban centres. Climate change will benefit no Pacific island states, and atolls and the atoll states will be particularly affected, but there is no prospect that present trends will slow, let alone be stopped. That will place particular pressure on agriculture, fisheries and food security, and therefore on two-thirds of the region's population, at a time of intense competition in international markets (Taylor *et al.* 2016; Rosegrant *et al.* 2016), and increase interest in migration. Throughout the region Pacific islanders are making their own decisions about migration, and either moving into already overstretched urban centres or moving overseas. Where international migration is particularly difficult, as in Kiribati and the Melanesian states, urban management is likely to become even

more serious. Migration must be viewed by policy-makers as a legitimate adaptation and resilience strategy whether by individuals, households or entire communities. The limited formal migration opportunities that presently exist again emphasise the need to secure more effective and balanced sustainable national development, but at the same time seek out new migration opportunities and expand old ones.

A quarter of a century ago when climate change was just beginning to be seen as a potential threat to low-lying Pacific islands, one geographer in an article entitled 'Earth's Empty Quarter' feared that at the end of the present century 'almost all the descendants of today's Polynesian or Micronesian islanders will live in Auckland, Sydney, San Francisco and Salt Lake City. Occasionally they may recall that their ancestors once lived on tiny Pacific islands, [now] lonely Pacific islands, set in an empty ocean' (Ward 1989: 245). While some islands have been depopulated in the last century, it is a gloomy prediction and it will take some effective policies and practices to ensure it does not happen, and that, in Melanesia especially, urban concentrations are not excessive.

The journey towards 2050 will be complicated and challenging. Disadvantaged by numerous factors, small island economies face problems the world over (Connell 2013a), and there is little evidence that Commonwealth Pacific small states are well-placed to benefit from global macroeconomic changes. The resurgence of neoliberalism, and 'retroliberalism' of the aid regime, involving a shift back towards economic growth as the principal objective of aid allocation and the parallel relegation of poverty reduction as the core target (Murray and Overton 2016), within a wider context of aid fatigue, evident in the stalled progress of PACER Plus, hinder regional development. Yet, orthodox prescriptions for economic growth have hitherto proved inadequate. Commodity prices are unlikely to increase significantly. This is happening at the same time, as global economic growth is slowing as Chinese growth also slows. Regional economic growth rates are unlikely to increase from presently low levels and PNG will be particularly disadvantaged unless it is able to achieve greater diversification. Moreover, regionally, Chinese economic incursions of unprecedented magnitude are becoming more widespread, directed at resource exploitation with little regard for either local employment or environmental considerations. Land grabs are alienating valuable land in PNG especially. Concerns are mounting over the too-rapid exploitation of regional fisheries, which will limit future economic growth and employment opportunities, and put further stress on achieving food security. Island states are moving away from sustainable futures.

Climate change will exacerbate existing vulnerabilities of small states with weak economies and infrastructure, and scarce skilled human resources, especially in the face of more violent hazard events. As recent cyclones in Vanuatu and Fiji have demonstrated, such cyclones take a considerable human toll, exact substantial economic and social costs, dislocate communities and put a substantial brake on economic development. On atolls, agriculture may take a year to be restored, and stress on fresh water is acute. Such storms are predicted to become even more intense. Climate change is thus increasingly likely to act as a tipping point, interacting with overcrowding – especially in marginal, hazard-prone urban areas – and environmental fragility, and centred on atolls and atoll states where high land is non-existent, policy

formation to achieve greater resilience is weak and development planning is poor. Nowhere else in the world are small island states facing greater threats.

Much therefore depends on the policies and practices of the metropolitan states adjoining the Pacific region, and especially New Zealand, Australia and the United States, the traditional established destinations of Pacific islander migrants. In each of these countries policies directed against migration are strengthening at the expense of more open borders and therefore at the expense of Pacific islanders. Triple wins are more difficult to achieve. It may be that such Asian states as Japan and Korea can be prevailed upon to offer migration opportunities, especially in the healthcare sector, but dealing with Japan's demographic implosion will require a complex migration strategy that minimises intercultural friction, in a country with very little ethnic and cultural diversity. However, overall, there is no evidence that any of the wealthier countries will offer more development–oriented migration opportunities to Pacific island states in the future. Everything therefore suggests that migration is likely to follow familiar corridors and with familiar outcomes, and that opportunities will not be increased. It will therefore be absolutely crucial that Commonwealth Pacific small states develop their own domestic development strategies, even in a context of increased globalisation.

8.7 Recommendations

Many recommendations are implicit in what has been analysed and discussed above, and many more have been made in related contexts (e.g. Campbell and Warrick 2014; Corendea *et al*. 2015; World Bank 2016a, 2016b), but it is useful to reiterate the key ones, and elaborate on others and where possible target them to appropriate agencies. At the same time, it is useful to recall that, other than where immediate problems of resettlement and relocation are required, policies presently exist but need to be turned into practice. Effective governance is crucial. Given the complex nature of the relationships between migration, climate change and socio-economic change, at various scales, a challenge for countries and the region as a whole is where best to focus, given the integrated nature of potential solutions. Actions are required in various places and at various scales but they must also be effectively integrated.

8.7.1 Regional action

In a context where responses to development needs through migration are likely to involve the metropolitan states on the fringes of the region, these states will have to be drawn into development and migration dialogues. The slow process towards the finalisation of PACER Plus indicated how difficult that is likely to be, especially for slow onset climate change issues. At least the most affected populations in the next decades are most likely to be in the thousands rather than millions. The more that such schemes are successful, the more they can pave the way for further migration, and reduce pressures on Pacific environments.

In the context of trade and aid negotiations, the Pacific Islands Forum should enter into discussions with Japan, Korea and Taiwan as priorities, to examine the possibility of developing migration streams to these countries. The Forum should also discuss with

Canada the potential for Pacific island countries to be involved in short-term migration, alongside the Caribbean states. It might still be possible to include within renewed PACER Plus negotiations the possibility of developing a scheme for the migration of carers to both Australia and New Zealand. However, the withdrawal of both Fiji and PNG from negotiations late in 2016 emphasises the difficulty of achieving agreement, and especially the reluctance of metropolitan nations to consider broadening migration options. In any event the Commonwealth Pacific small states are well placed to develop a carer migration strategy, but only when the opportunity arises.

As fellow Commonwealth and Pacific Islands Forum members, both New Zealand and Australia might prioritise the migration of people from Tuvalu and Kiribati (as New Zealand has done for fishermen) into the RSE and SWP schemes – since that meets both the probable reduction in poverty and the prioritisation of people moving from difficult environmental contexts. That might involve reducing travel costs. Given the limited familiarity of people from these countries with relevant agricultural activities it will be at least as important to develop opportunities outside the agricultural sector. Australia should also consider preferential migration arrangements for Pacific islanders along the lines of New Zealand's quota-based Pacific permanent migration schemes. Numbers are small and would pose no problems for a large, multicultural country like Australia. The Australian 'microstates visa' scheme needs to be evaluated within the next 12 months to examine its successes and failures and the extent to which it might be a model for other parts of Australia (perhaps especially Queensland), and New Zealand (and for other Commonwealth Pacific small states). Ideally, it might also work in Japan, the United States and elsewhere.

The Pacific has often been disadvantaged by being at the bottom of an 'international hierarchy' where international organisations in the region tend to be small, ineffective, plagued by lack of finance and rapid staff turnover, and/or part of a wider Asian region where policies that may be appropriate to Asia are assumed to be relevant to Pacific island countries. That has often disadvantaged policy formation and its practical implementation. In addition, at least in the area of migration and climate change, there are only a few initiatives and agencies concentrated on this area.

In 2015, the Pacific Islands Forum Secretariat set up the Pacific Network on Climate Change Migration, Displacement and Resettlement, which includes the Secretariat of the Pacific Regional Environment Program, United Nations Office for the Coordination of Humanitarian Affairs, United Nations Economic and Social Commission for Asia and the Pacific, UNDP, Pacific Islands Development Forum and the Pacific Conference of Churches. These agencies are involved in regional research and activity around climate and human mobility. The Secretariat of the Pacific Community (SPC) should also be included as they cover many related areas.

The International Organisation for Migration (IOM) has recently developed a regional presence and has a potentially highly important role to play in developing and monitoring resettlement schemes and in responding to the needs of those who experience forced migration in the years to come. That will necessitate developing a regional capacity, as IOM is now doing in PNG, to avoid dependence on experts who are unfamiliar with the region. The International Labour Organisation has

also recently developed an effective presence in working with Kiribati and Tuvalu to develop national migration plans. That is a valuable development and needs continued support to ensure a wider regional coverage. Such migration policies must be linked in to more broadly-based population policies. In this regard, the United Nations Population Fund (UNFPA) will play an important role. While UNFPA has focused on sexual health and domestic violence in recent years, as has the SPC, alongside HIV/AIDs, it would remain important for UNFPA to scale up policies and programmes in support of the unmet need for family planning.

To address issues of settlement, it would be invaluable for UN Habitat to have a more visible and effective presence in the region. Unfortunately, the Pacific office has recently closed. Therefore, there is presently no regional body that has the ability to strengthen and co-ordinate research, policies and practices on urbanisation and resettlement, at the local, national and international scale, to share experiences and strategies. If UN Habitat could be reinvigorated (or a CROP agency take over) it would be valuable to develop a project that, firstly, examined the various resettlement schemes in the region (e.g. Gilbertese in Solomon Islands, Vaitupuans in Kioa, etc.) to review the experiences of these projects—a remarkable gap in knowledge – and, secondly, combine this with a regional mission to source suitable areas within the region for future resettlement. The outcomes of the initiative could better prepare the region for possible settlement challenges, including those induced by climate change, as it heads to 2050.

8.7.2 National action

Most Commonwealth Pacific small states need to strengthen national capacity to deal with hazards and establish effective national organisations. How that is undertaken will vary between countries according to their capacity and their perception of problems. The Melanesian Pacific island countries especially have been found wanting in recent years and need to prepare evacuation/settlement plans since the response to hazards will be at least initially national, and their absence has hindered the development of new livelihoods for people exposed to sudden hazard events. Assumptions that displaced people can simply return later are erroneous and inadequate. Many disaster mitigation policies are weak and have little reference or relevance to human mobility.

A continued commitment is needed from all national governments to work towards local employment generation in the context of the SDGs, whether in tourism, agriculture or fisheries, and support research in related areas (such as salt-resistant plant species). Likewise, a continued commitment to good education, at all levels and in all regions, and training, remains essential for national needs and for the possibility of migration. More investment is required in skills formation within the Commonwealth Pacific small states to respond to domestic, regional and international demand for labour. That process has been stimulated by the emergence of the APTC but it could well be expanded, and would be a valuable use of aid. Countries must develop their own RSE and SWP priorities in terms of the selection of workers according to considerations of equity and risk. This is not currently seen as a priority and has disadvantaged potential workers from more remote impoverished areas.

While the onus for resettlement may lie elsewhere, it is crucial that Commonwealth Pacific small states take steps to manage economies and environments in order to support those already at risk and minimise the numbers of those who may be or become 'trapped' and unable to respond to environmental change, environmental hazards and economic shifts. Thus, countries must carefully manage urban environments, where many contemporary socio-economic problems are located, which may mean actually establishing effective and properly funded urban agencies where they are missing, involve such basic strategies as land use planning and land titling, and encourage development on outer islands where most urban migrants emanate from (and where response to hazard is usually less difficult than in densely populated urban centres), which will require more effective and regular delivery of services – especially health and education – to outer islands. Reversing the 'urban tide' and developing outer island economies will be difficult, but it must be persevered with.

Good environmental change mitigation projects in Commonwealth Pacific small states must focus on such fundamental needs as food and water security, coastal protection and reduction of poverty and inequality. Such adaptive strategies would meet local needs, enable retention of culture and reduce the need for unnecessary and problematic migration. However, that requires holistic policy formation and national governments should collaborate with relevant development partners to ensure an integrated policy approach.

Notes

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2 The entire population of Banaba was relocated in the 1940s to make way for phosphate mining; see Connell and Tabucanon, 2015.

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