

**Pacific Institute
of Public Policy**

CLIMATE SECURITY

A holistic approach to climate change, security and development

Key messages:

- » Climate change amplifies many of our existing development challenges beyond the obvious environmental concerns - addressing climate change is about securing our future.
- » Migration, both internally and externally, is likely to be the biggest consequence of climate change in our region and internationally.
- » Access to fresh water and food is already a key concern, as is energy security for our island nations reliant on oil and gas imports.
- » Ongoing geopolitical competition in the Pacific will also play into climate change security scenarios, particularly as aid and resettlement programs may be used as leverage to gain influence.
- » Factoring in a holistic approach to climate change to the post MDG development agenda has the potential to bring real benefits for Pacific island security and wellbeing, which is why it should be discussed when formulating the new global development goals.

**Discussion
paper:**

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Around the world, politicians and armies of experts are coming together to consider the world's development agenda after the Millennium Development Goals expire in 2015. The risks posed by climate change will feature highly in discussions that shape the post MDG era. Climate change is not just about rising temperatures and sea levels. It is about health, education and poverty, with an increasing awareness that climate change impacts on food, energy, water, resource and social security. In his book *Climate Wars*¹, military historian Gwynne Dyer makes some alarming predictions, noting that 'in a number of the great powers, climate-change scenarios are already playing a large and increasing role in the military planning process.' Pacific island countries remain on the frontline, vulnerable not only to rising seas but also the global responses to the emerging climate security threats. Together these amplify the region's development challenges - for you cannot have development without security.

Climate security and the link to development

NOT SO LONG ago the climate change debate was primarily the domain of scientists and environmentalists. By the time the world's leaders came together in Copenhagen in 2009, the story had taken on a human dimension - as the plight of drowning small island states captivated a global audience eager for collective action to tackle what was increasingly being described as the foremost challenge of our time. Since then, political deadlock and overly complicated climate funding mechanisms have frustrated seasoned negotiators, policy makers and concerned citizens alike. Over the last three years, the understanding of the implications of climate change have broadened, covering a complex web of development and security issues that are compounded by a shifting geopolitical landscape, population pressures and environmental degradation.

The impacts of climate change clearly challenge resource security - sustainable access to water, food, energy and land. What is less clear is how the reactions to these challenges will spill over into traditional security concerns - conflict and global instability. The risk of (or fall out from) conflict and instability seems highest in new and/or fragile states that already experience existing stresses around water supply, agricultural productivity, poor health systems, few employment and business opportunities, demographic pressures and limited migration pathways. Taken in this context, the threat of climate change to Pacific island nations expands beyond the prevailing adaptation approach of 'climate proofing' infrastructure, building sea walls and planting mangroves. The immediate pressure in our region will be to move off the coral atolls and away from the coastal areas. Leaving aside cultural upheaval, any orderly choice migration will be dependent on long term planning (e.g. matching education and skills development to enable citizens to compete in an increasingly competitive global labour market) and approached as a whole of government consideration.

Migration will be a major pressure point

As Carteret people resettle on mainland Bougainville, we are reminded of the potential tensions and obstacles arising from internal migration from climate affected coastal settlements, especially in culturally diverse and divided countries. Voluntary and forced resettlement throw up different social, economic and political challenges that require careful foresight and management and include: infrastructure capacity, service delivery (health, education), economic competition and housing choices. In the Pacific, the internal migration issues are amplified by a young, booming population and urban growth rates that exceed national averages and in some cases (Solomon Islands and Vanuatu) are amongst the highest in the world.² The movement of people from coastal homelands to urban centres because of climate-induced impacts will put increasing pressure on already over-taxed or nonexistent physical and social infrastructure, and increase the incidence of urban poverty.

External migration poses even more complex questions. In May 2011, the Marshall Islands government hosted a conference on the legal implications of climate change at Columbia University.³ After three days of discussion amongst lawyers, diplomats, policy makers and scientists it was evident that there were few easy answers to the difficult issues around migration, resettlement and statelessness. In particular, the issue of people displaced by climate change was considered at length. In the early days of climate change assessments, some larger countries seemed hesitant to accept the idea of 'climate refugees' and the debate continues whether people moving due to climate related factors are eligible for refugee status. The UN High Commissioner for Refugees (UNHCR) remains reluctant to revise the definition of 'refugee' to include people displaced due to climate change on the grounds that it would undermine the status of those who have become refugees for other reasons, such as fleeing persecution or war. The international community will likely debate this issue at length as the topic continues to attract interest⁴, especially in relation to countries with large coastal populations under threat from rising seas (e.g. Bangladesh). With such relatively small populations, Pacific island countries will increasingly struggle to influence international treaties relating to climate refugees.

It may be out of fear of setting a precedent that the Pacific's larger neighbours have not responded to calls to accept climate refugees from low-lying, small island countries facing wide scale loss of habitable land due to rising sea levels. Yet as geostrategic competition in the Pacific intensifies, this situation may reverse to the extent there could be 'bidding wars' to accept islanders so as to have a foothold on their territory and deny others the same opportunity. Such a scenario does pose concerns over potential trade offs between labour market access and access to resources within a country's exclusive economic zone (EEZ). If, for instance, China was to say to Kiribati – we will accept half your population to resettle in China, would that tempt the Chinese government to cultivate stronger economic and strategic interest over Kiribati's EEZ and the deep sea minerals and fish stocks that lie within it? Already we are seeing traditional donors devoting more aid and military assistance to air and sea patrols across the Pacific. This cooperation may be a potential source for future conflict. Perhaps little thought of, is the possibility of climate induced migration from Asia to the larger volcanic islands of the Pacific. Could we see a gradual or sudden push from places like China or India, which have huge populations, much poverty and significant environmental problems? A scenario for which Pacific nations are unprepared.

2. See PiPP (2011) *URBAN HYMNS*, Discussion Paper 18 - pacificpolicy.org

3. 'Threatened Island Nations: Legal Implications of Rising Seas and a Changing Climate' conference at Columbia University, May 2011 - <http://bit.ly/jRGg2T>

4. See for example the Convention for Persons Displaced by Climate Change website - <http://www.ccdpconvention.com/>

Securing the staples: food, water, energy and land

Access to fresh water and food is already a key issue, particularly in the region's atoll states. Climate change is predicted to further reduce yields on land, while ocean acidification and warming seas slowly destroy coral reef systems, affecting fish stocks. Food is often identified as a catalyst of many conflicts – hunger being a good motivator. On a broader scale, the impact of climate change on agricultural production could lead to further and more severe global food price shocks. Analysis⁵ shows a number of Micronesian and Polynesian countries have yet to fully recover from the food and fuel price shocks of 2007/08. Unsurprisingly, the authors note 'the countries that are most vulnerable to international food price increases are mainly small, remote, soil-deficient, high-import-dependent states' – e.g. Nauru, Kiribati, Cook Islands, Niue, Tuvalu, Palau and Marshall Islands. The prospect of increasing frequency and severity of global food price rises does not bode well for a region prone to declining agricultural productivity⁶, which amplifies vulnerability to external shocks.

The fuel price hikes of 2007/08 served as a wake up call for our island nations reliant on oil and gas imports. Since then most Pacific island countries have established renewable energy targets, with Cook Islands, Niue, Solomon Islands, Tuvalu and Vanuatu aiming to generate 100 per cent of their electricity from renewable technologies. Analysis by the Development Policy Centre⁷ suggests that the renewable targets in the Pacific are strikingly ambitious. The author points to high costs and technology/resource limitations, noting 'total generation from renewable technologies can be cost effective if there are ample low cost renewable energy resources, such as hydro-power, geothermal or biomass supply'. Few countries in the Pacific are fortunate to have such resources. Traversing food and energy security is the growing use of biofuels, which puts pressure on agricultural land for energy rather than food production. Concerns also surround some 'first generation' biofuel crops, particularly the effects of oil palm plantations on the environment and communities in Papua New Guinea⁸.

Perhaps the most immediate impact of climate change on island communities is soil and water salinity that destroys gardens and is leaving coastal communities with reduced ability to grow root crops. Food security and access to drinking water is likely to drive the response of communities to either stay and adapt, or move on for good.

Another possibility is that European and Asian nations will be sending more fleets to the Pacific to fish, as their own farming areas on land and fishing grounds close to home become less productive. Many wealthy nations like Saudi Arabia and South Korea are buying up productive farmland in vulnerable countries in Africa and the Pacific, which will increase tension with local communities, especially if deals have been done through corrupt governments rather than landowners. The controversial Special Agriculture Business Leases (SABL) in Papua New Guinea⁹, for the benefit of Asian agri-business, are an example of Pacific government action that could lead to landowner revolt and food security issues. If China, Indonesia, India and others build up their presence in the Pacific to increase their own food security, then there may be a higher potential for geopolitical rivalry and conflict.

5. 'The Second International Food and Fuel Price Shock and Forum Island Countries', Australian Government Treasury Economic Roundup Issue 3, 2011 - <http://bit.ly/WqNB6o>

6. See PiPP (2011) *FOOD FORTHUGHT*, Discussion Paper 19 - pacificpolicy.org

7. Dornan, M. (2012) *Renewable energy targets in the Pacific: Why are unrealistic targets adopted?* - devpolicy.org 20 July 2012 - <http://bit.ly/O197e6>

8. Pacific Scoop (2010) *PNG: Greenwashing the palm oil industry* - <http://bit.ly/bSyNYb>

9. In the past decade, around 5 million hectares has been leased out under the Special Agricultural and Business Leases, often without the knowledge and consent of landowners. Public outrage prompted the former Somare government to set up a Commission of Inquiry, which has yet to release its findings - <http://bit.ly/yIghlv>

Sea grabs

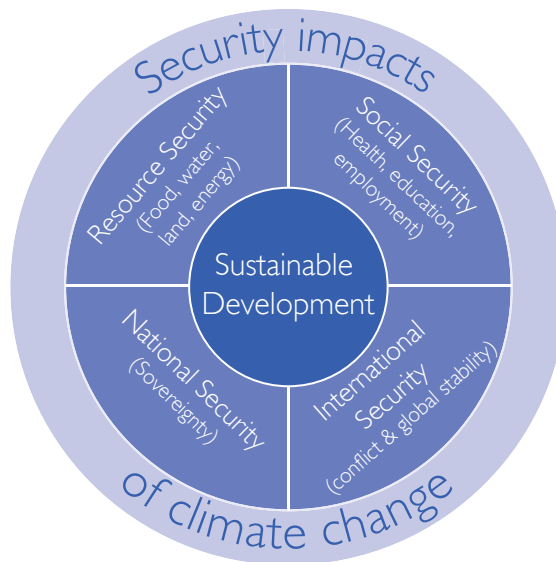
Despite the recent signing of seven bilateral and one trilateral agreement to settle the exclusive economic zone and continental shelf boundaries between Kiribati, Nauru, Tuvalu, Cook Islands, Niue, Tokelau and the Republic of the Marshall Islands, there remain some maritime boundary disputes in the region. Seabed mining and other resource exploitation could influence political decisions around maritime boundaries. The Republic of the Marshall Islands/Columbia University conference on the legal implications of climate change¹⁰ examined the issues surrounding continued sovereignty for a submerged nation, including mineral and fishing rights within the exclusive economic zone. The conference heard of real threats to statehood that cannot be addressed simply by outward migration. Countries like the Marshall Islands, Kiribati and Tuvalu, which face all of their land being inundated by rising seas, risk losing the sovereign right to their valuable sea resources - something that is akin to an invasion. Strengthening calls for a review of the The United Nations Convention on the Law of the Sea (UNCLOS) to reflect the impacts of climate change, and give vulnerable island countries the right to their ocean territories into perpetuity, Philip Muller, the Marshall Islands' UN ambassador, told the conference 'a climate-driven threat to statehood in our view cuts across the legal rights to territorial integrity and noninterference as well as the right to political independence and self-determination and permanent sovereignty over natural resources.'

Natural disasters add burden to military

Disasters influenced by climate change will add a much greater burden on regional powers to provide both humanitarian and military assistance. For nations with both limited military resources and facing growing climate-related problems at home and in the region, such as Australia and New Zealand, the consequences will be to put pressure on the capabilities and reach of their defence forces. Australia, which has long contributed to UN and US military operations around the world may find that it needs to pull back and concentrate on issues close to home; drought in the outback, floods and cyclones in northern Australia, and responding to natural disasters affecting its Pacific neighbours. This may contribute to Australia and other countries downsizing their commitments to international missions to keep focused on domestic and regional humanitarian missions. It may also influence the type of big military acquisitions made, depending on whether military planners see more need to be equipped for peacekeeping and disaster response, or big-ticket hardware to retain 'inter-operability' with US and other coalition forces. It may mean fewer Abrams tanks and more navy landing craft, fewer fighter jets and more heavy-lift C-130 Hercules, if conclusions are made that it is better to be outfitted for regional humanitarian and peacekeeping on tropical islands as opposed to combat missions in faraway deserts like Afghanistan and Iraq.

As climate related issues begin to bite at home, from sudden disasters (major cyclones, floods etc.) to the more incremental (growing desertification, shrinking water supplies affecting irrigation, which in turn affects agriculture and food security) there will be greater temptation

10. See above in footnote 3



for politicians to reflect public sentiment that 'we need to focus resources at home' and reduce international commitments.

The other area of concern militarily is that there is no protocol in place to manage military engagements in the region between the US and China. What happens in a future natural disaster when both US and China wish to quickly deploy humanitarian assistance via their military forces but they can't agree on co-ordination? Will there be standoffs at the wharf and airfields as regional powers compete to provide emergency aid?¹¹

Aid for strategic influence

For the past 60 years since World War II, the Pacific has been off the radar in terms of strategic importance. That has now changed significantly as we navigate the Asia-Pacific Century. Much greater attention is now being focused on cultivating influence in Pacific island states to, amongst other things, access resources and UN votes. The offers of money from new and long-term aid donors can potentially have geopolitical and security consequences. When Tuvalu faced a drought crisis in 2011, fresh water supplies came from Abkhazia, the separatist state Russia and Georgia went to war over in 2008. Tuvalu reportedly had previously supported and received funding from Georgia, and on this occasion Australia and New Zealand were quick to denounce what they saw as Russian sponsored 'cheque-book diplomacy'¹².

China is likely to increase its influence by offering climate change-related help in the form of renewable energy technology it produces, like cheap solar power systems. China is the world's largest manufacturer of renewable energy technology; something Pacific nations will be keen to access.

Europe, the US and Australia, who all provide generous aid around climate change, need to ensure that excessive bureaucracy and broken promises do not get in the way of the dispersal of funds, otherwise anger and frustration may tempt Pacific nations to take aid from other sources who may use that aid for political leverage. Many in the Pacific have complained that although there have been substantial pledges of aid for climate change adaptation¹³, that money has been slow in coming or is tied up in a minefield of bureaucracy. In a detailed analysis of the obstacles of climate financing, Nic Maclellan¹⁴ argues:

One of the central pillars of global climate change negotiations is the need to improve access for developing countries to funding and technical resources. But efforts to establish effective mechanisms for climate financing are complex, with governments trying to balance the accountability required for the allocation of tens of billions of dollars with the urgent need for resources to flow into the poorest communities in the world. The global funding architecture is complex and many existing funding mechanisms are not designed to take into account the small size and capacity constraints of small island developing states.

11. See PiPP (2012) *PATRIOT GAMES*, Discussion Paper 21 - pacificpolicy.org

12. Tuvalu is one of four countries that have acknowledged the independence of Abkhazia. Source: Bloomberg, 15 Nov 2011 - <http://bloom.bg/w4nmLG>

13. At the UN Framework Convention on Climate Change (UNFCCC) conference in Cancun in 2010, developed countries committed to 'fast-start' climate funding approaching US\$30 billion in 2010-12, with a goal of US\$100 billion a year by 2020.

14. Maclellan, N. (2011) Improving access to climate financing for the Pacific islands, Lowy Institute - <http://bit.ly/QoVWJoT>

Emphasising value, not vulnerability

It should be appreciated that Pacific islanders have always been very resilient and will find ways to adapt to a changing climate. On this issue Pacific nations are becoming more confident in pressing their case internationally. There is an emerging consensus that we are not to be seen as small island countries, but rather as large ocean states. In time we will also move away from the rhetoric of vulnerability to emphasise the value we offer to the world - for instance we have 60 per cent of global tuna stocks and New Guinea island is one of the great lungs of the planet. Our communities have low carbon footprints and live sustainably; although with our ecosystems under attack it is disappointing that environmental protection seems a distant priority for many island governments. In some areas we can be a model for the world as it struggles to cope with much larger consequences. At the same time, it is reasonable to expect Pacific leaders to be more pointed in their criticism of major industrial powers who continue to feed the problem of carbon emissions without regard for the impact on the rest of the world. That remains the real source of the problem.

Echoing the alarming predictions of Gwynne Dyer in *Climate Wars*, Marcus Stephen, then president of Nauru, urged the UN Security Council to act on climate change in July last year or risk 'a threat as great as nuclear proliferation or terrorism' adding climate change 'carries the potential to destabilise governments and ignite conflict'. Despite much international pressure to the contrary, the Council declined to accept climate change as part of its purview, although noted 'concern that possible adverse effects of climate change may, in the long run, aggravate certain existing threats to international peace and security'¹⁵. While up against the veto of permanent members Russia and China, the Pacific and other island states will now look to Australia as an incoming non-permanent Security Council member to continue to raise the security dimensions of climate change, and the effects they are having on our communities.

Since 2000, development policy and programmes and most official aid budgets have been tied to the Millennium Development Goals (MDGs). With the MDGs set to expire at the end of 2015, the international community is gearing up for what comes next. The UN has appointed a High-Level Panel on the Post-2015 Development Agenda, and different interest groups have commenced lobbying in order to include issues that were not incorporated in the MDGs, such as climate change, human rights and economic inequality¹⁶. 'Solutions to climate change are also solutions to global poverty' says Dr Rolph Payet, lead author of the small islands chapter of the UN's Intergovernmental Panel on Climate Change (IPCC) fourth assessment report¹⁷. Taking such a holistic approach to what has for too long been seen as an 'environmental problem' can lead us to better, whole of government solutions. Especially in the Pacific, where climate change serves to amplify our existing development challenges, there is no reason why investing in education, health care and poverty alleviation measures cannot be seen through the lens of climate change adaptation. It is not just about equipping people to migrate, but ensuring our populations are best resourced to make choices about the pressing issues that affect their lives. The global interest in the post 2015-MDG development agenda presents an opportunity for our leaders to press our concerns more robustly on the international stage. Security issues will be driven by climate change, and it is these issues that will drive the development agenda in our region into the future.

15. Sources: *New York Times* - <http://nyti.ms/Xlizu> and Care2 - <http://bit.ly/RquGE5>

16. The 26 member panel is co-chaired by UK prime minister David Cameron, Liberian president Ellen Johnson Sirleaf and Indonesian president Susilo Bambang Yudhoyono with Timor-Leste's minister of finance, Emilia Pires, the only representative from our region (Source: *The Guardian* - <http://bit.ly/R68f6p>)

17. Mimura, N., L. Nurse, R.F. McLean, J. Agard, L. Briguglio, P. Lefale, R. Payet and G. Sem (2007) 'Small Islands Climate Change: Impacts, Adaptation and Vulnerability'. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change

‘We, the people at the front lines of vulnerability should be more actively defining our future in all eventualities instead of letting others write it for us.’

Hon. John Silk, Minister of Foreign Affairs, Republic of Marshall Islands speaking at 'Threatened Island Nations: Legal Implications of Rising Seas and a Changing Climate' conference at Columbia University, May 2011

The Pacific Institute of Public Policy is an independent, not-for-profit and non-partisan think tank, and exists to stimulate and support informed policy debate affecting Pacific island countries.

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