

Regional security implications of climate change and natural disasters in the South Pacific

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Abstract

This paper examines the regional security implications of climate change and natural disasters in the South Pacific. It contends that over the next decade, natural disasters and the emerging impacts of climate change could threaten the regional security environment in the South Pacific, as well as eroding the capacity of Pacific Island Countries to maintain domestic security and contribute to regional security arrangements.

The paper asserts, however, that climate change threats could provide an opportunity for strengthening regional security forums and engagement between Australia and other partners in the region. It concludes that humanitarian aid and disaster-relief operations, in particular, provide opportunities for Australia in military engagement on activities that can build trust and confidence, and develop the capability to interoperate in the provision of support- and security-related activities in the region and elsewhere.

Introduction

Climate change is an existential threat to the survival and viability of many small Pacific island countries (PICs).¹ By 2100, sea-level rise could inundate some low-lying atoll nations.² Climate change is already affecting the environment and increasing the impacts of natural disasters in the Pacific.³

Pacific islander communities have been adapting to harsh and changing environmental conditions for centuries, and environmental hazards are generally not the direct cause of conflict. However, climate change is a threat and stress multiplier that can exacerbate existing vulnerabilities and instability.⁴

This paper argues that over the next decade, natural disasters and the emerging impacts of climate change could threaten the regional security environment in the South Pacific. It contends that the social and economic impacts on PICs of dealing with environmental hazards could erode their capacity to maintain domestic security and contribute to regional security arrangements.

The paper will consider the relationship between climate change and security, and its implications for the region. It will outline issues relating to the challenges of environmental hazards, and conclude by identifying a number of opportunities to strengthen regional engagement and enhance cooperation between security partners through humanitarian and disaster-relief activities.

Environmental impacts

The South Pacific is one of the most exposed regions in the world to natural hazards and disasters.⁵ Between 1970 and 2014, there were 539 'disasters' in the Pacific, which included cyclones, droughts, earthquakes, electrical storms, extreme winds, floods, landslides, storm surges, tsunamis and volcanic eruptions. Recent major disasters have included Cyclones Pam in Vanuatu (2015) and Winston in Fiji (2016), and droughts in Tuvalu (2011), Micronesia (2015-16) and PNG (2015-16).

In its Fifth Assessment Report in 2015, the Intergovernmental Panel on Climate Change assessed that warming of the climate system is unequivocal and that impacts on natural and human systems globally are already occurring, including sea-level rise and longer and more intense heat waves.⁶ In addition to the immediate impacts of disasters and extreme weather events, climate change is likely to affect food security, water scarcity, the frequency of disasters, sea-level rise and energy security.⁷

Exacerbating the effects of climate change in the Pacific are naturally occurring weather patterns, especially the southern oscillation, which affects

winds and sea-surface temperatures in the Pacific Ocean.⁸ During the warming phase (El Niño), the climate is drier in the South Pacific, while in its cooling phase (La Niña), it is normally wetter. However, the impact of these events varies depending on location. For example, in Kiribati and Tuvalu, droughts are usually associated with La Niña events, whereas droughts in Fiji and Micronesia have been caused by El Niño events.⁹

Security challenges

Climate change is often referred to as a 'threat multiplier' and stressor on state capacities, communities and existing conflict dynamics. It can exacerbate threats caused by poverty, weak institutions, mistrust between communities, and inadequate access to information or resources.¹⁰ Australia's 2016 *Defence White Paper* highlighted climate change as a contributor to state fragility in the South Pacific (along with uneven economic growth, crime, and social and governance challenges).¹¹ The overall vulnerability of the region is reflected in the ranking of most PICs in the lower half of the UN's Human Development Index.¹²

The 2008 *Garnaut Climate Change Review* outlined the potential for climate change outcomes to destabilise domestic and international political systems in parts of Asia and the Southwest Pacific.¹³ In a 2008 report, Alan Dupont noted that an increasing number of influential policy-makers and practitioners accept that unmitigated climate change will have profound consequences for global security.¹⁴ In 2015, former Chief of Defence Force Chris Barrie *et al* similarly noted that climate change can exacerbate a range of interacting, non-climate threats to security and drivers of conflict, such as poverty and economic shocks, and increase the risks of conflict.¹⁵ Conflict can also increase vulnerability to disasters and climate change impacts by damaging infrastructure, institutions, resources and livelihoods.¹⁶

Environmental degradation, depletion of resources and rapid population growth do not tend to produce conflict in PICs on their own.¹⁷ Traditional communities in the South Pacific have survived environmental hardships and have a high degree of local resilience. However, climate change could exaggerate the effects of pre-existing hazards and social problems, exacerbate existing factors causing violence, undermine the resilience of communities and make it more difficult for communities and governments to recover from disasters and resolve issues.¹⁸

Understanding the nature of pre-existing social stressors is important in identifying which PICs and communities might be more vulnerable to the impacts of environmental hazards and most at risk of violence and instability in the event of an environmental shock. The vulnerability of PIC communities to hazards

is influenced by a range of social, economic, political and environmental factors that make it difficult to generalise the relationship between climate change and security.¹⁹ However, impacts will be most felt by communities lacking essential infrastructure and services, and living in exposed areas. PICs are also vulnerable to the global impacts of climate change, such as food-price inflation.²⁰

The relative vulnerability to and impacts of hazards for small atoll-states may differ to PICs with larger and more ethnically-diverse populations, and between rural and urban communities. The resilience and self-reliance of PIC communities can counteract deficiencies of governments, which often have a limited presence and ability to supply services for rural communities.²¹

Implications for regional security

Climate change could affect security in the South Pacific region by weakening the capacity of governments to maintain security capabilities, and through the potential impacts of migration. Most PICs require international assistance to respond to disasters and support adaptation measures, which could increase as disasters become more frequent and intense.

The World Bank notes that between 1950 and 2011, extreme weather-related events in the region affected approximately 9.2 million people, with approximately 10,000 reported deaths and damage estimated at US\$3.2 billion.²² It asserts that in Vanuatu, the impact of natural disasters has been equivalent to an annualised loss of 6.6 per cent of GDP; in Tonga, it is estimated to be 4.3 per cent. Adaptation measures can increase the long-term costs to PICs, with the World Bank estimating that it will cost US\$10-40 million per year per atoll nation by 2040 to protect against sea-level rise (which is unlikely to be affordable by the atoll nations).

Climate change and disasters could erode the national capacity of affected PICs through economic disruptions, negative impacts on growth, erosion of national revenue bases and undermining of governance capacities. Dupont contends that such impacts could undermine institutional capacities, the provision of core public services, and state authority. Affected PICs could therefore have reduced capacity to maintain domestic security and support regional arrangements, such as policing and maritime surveillance.

Most PICs are susceptible to or already dealing with some level of state fragility, which could exacerbate their vulnerability to environmental hazard impacts.²³ If PICs are unable to effectively govern their territories, areas of the Pacific could become under-governed spaces, vulnerable to malicious actors, transnational crime, trafficking and illegal fishing.²⁴ Prior to the deployment of

the Regional Assistance Mission to the Solomon Islands in 2003, concerns were raised that it could become a 'failed state', with serious implications in terms of the emergence of transnational or non-state security threats.²⁵

Climate change can also affect the abundance and spatial distribution of fish stocks and damage the environment for coastal fisheries, which are relied on by local communities for employment and nutrition.²⁶ The total catch value of tuna in the Pacific islands region is around US\$4 billion per year, and returns to a number of PICs are around US\$350-400 million per year.²⁷

Temporary displacement of populations can occur in response to disasters. However, ongoing environmental degradation could require more permanent migration. For example, larger-scale migration could be required for low-lying islands and states, such as Kiribati and Tuvalu, due to the impacts of sea-level rise.

Pacific islanders have used migration in the past to deal with environmental change.²⁸ However, decisions about whether, when and where communities might migrate depend on socio-political as well as environmental conditions. For example, in Tuvalu, climate-driven migration is resisted and only regarded as a last resort due to the impact migration would have on the identity, culture and wellbeing both of those migrating and the recipient community.²⁹ However, Kiribati recognises the long-term need for migration options and purchased land in Fiji in 2014 that could support future migration.³⁰

Responses

Mitigating the prospects for instability caused by environmental hazards requires efforts to strengthen institutions, support adaptation measures, and provide security and humanitarian and disaster-relief assistance if required. 'Threat minimisers', which are the conditions, policies, institutions and actions that can relieve and manage stresses effectively, can be identified by understanding the regional environment and drawing on local knowledge and experiences of dealing with environmental hazards.

The UN has identified adaptation, economic development, governance, mitigation and conflict prevention as key threat minimisers.³¹ It also acknowledges that multilateral approaches are necessary due to the transboundary effects of climate change, and that increased resilience should be the long-term goal of defence, aid and development programming.

Australia takes a leading role in providing humanitarian and disaster-relief responses in the Pacific, and supports climate change initiatives through its bilateral aid programs and contributions to multilateral funds. It also works with PICs and regional organisations to support sustainable economic growth and

build resilience to the impacts of climate change, including funding to sectors affected by climate change, such as fisheries, and disaster preparedness.³² The budget estimate for Australian aid for the Pacific in 2016–17 is A\$1 138.4 million. At the Paris Conference in 2015, Prime Minister Turnbull also announced that Australia would provide at least A\$1 billion to build climate change resilience and reduce emissions in developing countries over the next five years.

Australia also provides patrol boats to PICs for maritime surveillance through the Pacific Patrol Boat Program and its successor, the Pacific Maritime Security Program.³³ Australia also works with New Zealand, the US, France and regional partners in providing assistance to the region, including support for maritime surveillance and patrol operations through Operation SOLANIA.³⁴ Although Defence does not lead Australia's efforts on climate change, the ADF is generally at the forefront of Australian responses to disasters in the region, along with the Australian Federal Police.

A challenge for Australia is to maintain effective capabilities to support security and disaster responses in the region. The securitisation of climate change has varied between Australian governments, which may have influenced the focus and investment in the security challenges of climate change.³⁵ Climate change presents geostrategic and capability risks for the ADF, including its ability to maintain capabilities and operate in more environmentally-hazardous environments.³⁶

The *2016 Defence White Paper* notes that Australia will continue to play an important leadership role in responding to instability and disasters, and that climate change will mean this happens more often. However, some commentators have argued that the ADF is not adequately prepared for the challenges of climate change and lags behind the US, UK and New Zealand; it has also been contended that the *2016 Defence White Paper* does not really engage with the ways that climate change is transforming geopolitics in the region and the unique challenges faced in the South Pacific.³⁷

There are a range of measures Australia could take to improve ADF preparedness and support climate change efforts and humanitarian and disaster-relief contingencies. For example, the introduction of the Canberra-class ships provides Australia with an opportunity to assist with regional humanitarian and disaster-relief support and cooperation activities, as well as with diplomacy, noting the goodwill achieved by the US Navy's routine humanitarian assistance missions to places such as Timor-Leste.³⁸ Other measures could include developing strategic partnerships with regional defence forces and other partners to support capacity building and response, and preparing for changes to the operational environment as a result of climate change.³⁹

The growing international engagement with the South Pacific, and the presence of newer trade and aid partners in the region, such as China, could provide opportunities for increased support for climate change adaptation initiatives and confidence-building in the security sector through cooperation on humanitarian and disaster-relief activities. China has a growing aid, trade and investment presence in the region, albeit it has driven concerns about Chinese geostrategic competition in the Pacific.⁴⁰

China provided approximately US\$1800 million in bilateral aid across 218 projects between 2006 and 2014 to PICs that recognised the 'one-China policy' of the People's Republic of China.⁴¹ China has been increasing its support for global humanitarian activities since 2000, including in the aftermath of an earthquake in Nepal, the Indian Ocean tsunami, and droughts and the Ebola outbreak in Africa, mostly involving material and food aid and rescue and medical teams.⁴²

Jenny Hayward-Jones has argued that Australia should engage and cooperate with China on the development challenges faced in the region, and that China would benefit from Australia's experience.⁴³ This has been difficult due to a lack of transparency and cooperation by China on aid, although China seems to be increasingly willing to cooperate more closely with other donors and governments.⁴⁴

In addition to the benefits of addressing the major challenges of climate change and disasters, engaging with China on humanitarian and disaster-relief projects in the South Pacific could be a positive means to build trust and confidence in both the delivery of aid and military-to-military cooperation. For example, China's hospital ship, the *Pacific Ark*, visited the South Pacific in 2015 as part of a goodwill visit, which included the provision of medical assistance to local communities. Such visits provide an opportunity for Australia to foster cooperation and normalise international engagement by the People's Liberation Army in a 'weapons-free and non-zero sum environment'.⁴⁵

Conclusion

Climate change is a long-term issue that will challenge the viability and possible sovereignty of some PICs as the impacts of sea-level rise and global warming increase. However, major disasters over the next decade could degrade environments to the extent that some communities may need to migrate from affected areas, possibly sooner than expected. The impact of major disasters and the emerging impacts of climate change could exacerbate underlying social issues in PICs and amplify the drivers of violence, which could cause social disruption and increase the prospects for instability and violence in the region.

PICs will require the support of Australia and other international partners to cope with disasters and to adapt to the increasing impacts of climate change, as well as assistance, if required, in addressing limited security capabilities and outbreaks of violence. Support for regional security arrangements, such as maritime surveillance capabilities, will be important in mitigating the prospects for under-governed spaces.

Although the outcomes of global mitigation measures will determine the severity of climate change impacts over the next century, such as the extent of sea-level rise, a concerted effort to develop and coordinate adaptation initiatives over the next decade will help PICs build the resilience and capabilities needed to reduce their vulnerability to future environmental hazards.

Climate change threats could provide an opportunity for strengthening regional security forums and engagement between Australia and newer partners in the region. Australia and other actors involved in the provision of humanitarian and disaster-relief support in the South Pacific need to ensure they have the capabilities and coordination to operate effectively in a potentially more complex and crowded environment.

Such efforts should have the practical objective of coordinating such activities and building national capacities to respond and adapt to environmental hazards. Humanitarian and disaster-relief operations also provide opportunities for military engagement on activities that can build trust and confidence, and to develop the capability to interoperate in support of future humanitarian and disaster-relief and security-related activities in the region and elsewhere.

Notes

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