Environmental Peacebuilding
in the Pacific

Paula Hanasz and Scott Brady

**Australian Army
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Acknowledgements

Introduction

It has been said that the impact of climate change on small islands is no less threatening than the dangers guns and bombs pose to large nations.[1] Rising sea levels, ocean warming, soil erosion, and increasing frequency and intensity of natural disasters all impact most profoundly on the livelihoods, human security, food security and water security of the Pacific island countries that are least able to cope with these threat multipliers. In regions where natural resources come under strain—through growing demand, overexploitation, environmental degradation, or other causes of scarcity—nativism will surge and violent conflict may erupt.[2] The Department of Defence must, therefore, learn to anticipate and manage risks that develop as a result of climate change to build resilience among our Pacific neighbours.[3] After all, Australia's national interest is closely linked to the stability and prosperity of our immediate region, which spans Papua New Guinea (PNG), Timor-Leste and Pacific island countries and territories (PICTs) in the South Pacific.[4]

No long-term foreign policy objective is more important to Australia, argues the 2017 Foreign Affairs White Paper, than ensuring our region evolves peacefully.[5] At the same time, Australia's strategic weight, proximity and resources place high expectations on us to respond to instability or natural disasters—and, as the 2016 Defence White Paper points out, climate change means we will be called on to do so more often.[6] The Australian Government's approach to better protecting and advancing our interests in a changing Indo-Pacific region begins with substantial investments in the foundations of our national strength. That means building a more capable, agile and potent Australian Defence Force (ADF) and boosting defence engagement with countries in the region, including through more training, exercises and capacity-building.[7]

Environmental peacebuilding may provide a useful approach to focusing this effort where it may be most effective—in supporting the equitable resolution of conflicts less than war that are caused or exacerbated by environmental degradation, scarcity, overexploitation of natural resources, or the effects of climate change. Over the past two decades, the expectation that environmental cooperation will foster regional peace and stability has led to increased allocation of international funding to such initiatives, and recognition among academics and practitioners of the rising importance of environmental peacebuilding.[8]

What is environmental peacebuilding? For the academic, it is a discursive construct in which the biophysical environment is conceived in terms of scientific definitions and human needs, rather than in terms of state security.[9] For the practitioner, it is an analytical lens through which good environmental governance emerges as a framework for creating, validating or changing institutions in order to prevent, mitigate or resolve conflicts over natural resources.[10]

Understanding that the potential for conflict in our region is caused or exacerbated by environmental factors may help the ADF understand the potential for peace. This monograph applies the environmental peacebuilding lens to nascent conflicts and collective action problems facing the countries and territories of the south-west Pacific region, namely the Cook Islands, Fiji, Kiribati, the Republic of the Marshall Islands, the Federated States of Micronesia, Nauru, Niue, Palau, PNG, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, and Vanuatu. It explores security challenges in the region arising from the governance of natural resources and the environment, and opportunities for environmental peacebuilding.

Part 1 briefly examines the concept of environmental peacebuilding and proposes a candidate set of definitions. Part 2 establishes the relationship between the environment and conflict, and the potential of good environmental governance to be a stabilising factor. Australia's growing interest in environmental security is then discussed, as are the specific risks facing Pacific islands. Part 3 examines the challenges the ADF may have in taking leadership to address these issues. Environmental peacebuilding as a process is explored, and its strengths and limitations are considered.

The monograph then examines three specific situations where an environmental peacebuilding approach could usefully be applied: the conflict over natural resources in Bougainville (Part 4); the risks to and from Pacific fisheries (Part 5); and the climate-induced displacement and natural disasters exacerbating Fiji's ethnic tensions (Part 6). Each of these three situations may require ADF intervention or other support in the near future. A recent independence referendum in Bougainville has placed this autonomous region of PNG at a crossroads, and Australia must ensure that it is adequately prepared for the coming political, security and environmental challenges there.[11] The region's fisheries present a slew of collective action problems that threaten regional security. There is an urgent need to prevent the continued depletion of fish stocks, such as those of Pacific bluefin tuna, fuelled by a combination of growing local and international demand and increasingly competitive prices.[12] While Australia is working collaboratively with PICTs and the international community to curtail illegal, unreported and unregulated fishing, it may be too little, too late. As explored in the discussion of the issues affecting Fiji, Australia is increasingly providing disaster relief missions to the Pacific region, straining the ADF's capacity while failing to support long-term climate change adaptation strategies such as enabling migration with dignity for Pacific Islanders facing climate-induced relocation.

For all these challenges and threat multipliers, environmental peacebuilding provides an opportunity for the ADF to take the lead in identifying, preparing for and mitigating the effects of nascent instability in the south-west Pacific caused or exacerbated by environmental factors, including the effects of climate change. Part 7 provides a set of recommendations for operationalising environmental peacebuilding in accordance with the approaches proposed in this monograph.

Part 1: What is Environmental Peacebuilding?

Environmental peacebuilding is a multidisciplinary, broad, flexible and ill-defined concept. It is neither governed by a coherent set of theories nor limited by strict disciplinary boundaries. It encompasses a multitude of conceptions and epistemological assumptions concerning the links between the environment, conflict, cooperation and peace, sometimes concluding in contradictory propositions.[13]

Conceptual framework

Environmental peacebuilding assumes that the biophysical environment's inherent characteristics provide incentives for cooperation and the emergence of positive-sum outcomes.[14] It is based on the hypothesis that 'the mutual benefits of cooperation outgrow the self-interested rationale of conflicts and can contribute to the pacification of coupled human-natural systems in a durable and multifaceted way'.[15] As such, environmental peacebuilding represents a paradigm shift from a nexus of environmental scarcity to one of environmental peace.[16]

Academic literature on the topic emphasises the potentially transformative nature of cooperation over shared natural resources, but also highlights that peacebuilding is highly contextual.[17] This is partly because violence and peace never quite manifest in exactly the same ways. Violence can be direct or structural, while peace ranges from negative peace (the absence of violence) to positive peace (the ability to resolve conflicts non-violently within a harmonious, equitable society).[18]

Peacebuilding aims to overcome the causes of direct and structural violence. It originated as one of three different approaches to peace, the other two being peacemaking (which focuses on conflict resolution through diplomatic negotiations and peace agreements) and peacekeeping (which is about maintaining a ceasefire or truce).[19] Peacebuilding is not limited to post-conflict stabilisation but also used to prevent latent conflict, de-escalate violence once it begins, and take a long-term view of reconciliation between conflicted parties at all levels—from state actors and other high-level leaders to grassroots leadership.[20] Environmental cooperation, then, can be used as a tool of peacebuilding because it shapes and redefines the social and biophysical context.[21]

The natural environment shapes, and is shaped by, social, political, and economic systems. In trying to understand the threats to and from the natural environment it is therefore important to understand the power dynamics between various forces at play, and the sources of influence. For example, women are often disproportionately affected by the loss of access to or availability of natural resources such as fresh water. At the same time, women may be local powerbrokers or agents of change who nonetheless tend to be excluded from or overlooked in more formal decision-making processes. Identifying and being able to leverage such 'hidden' power dynamics is an important aspect of systems thinking required of successful environmental peacebuilding.

External actors such as donor agencies, international and non-governmental organisations and the militaries of allied nations can play a role in environmental peacebuilding by funding or otherwise supporting relevant projects. They can also act as neutral intermediaries.[22] At the same time, it is important to note that the success of environmental peacebuilding cannot be externally imposed but rather should result from collective action sanctioned by all participants. Importantly, resource allocation must be perceived as fair by all parties involved, not just deemed appropriate by the intervening third parties.[23]

Definitions

How, then, should environmental peacebuilding be defined? That depends on how environmental peacebuilding is to be applied. It may be used as a lens through which nascent, ongoing or recently quelled conflict situations can be analysed; or it may be used as a process for planning and conducting interventions into volatile contexts.

A lens for conflict analysis

There are at least three relevant definitions of environmental peacebuilding as a lens for conflict analysis, each stressing a different aspect of environmental peacebuilding.

One definition is: 'Environmental peacebuilding integrates natural resource management in conflict prevention, mitigation, resolution, and recovery to build resilience in communities affected by conflict.'[24] This definition highlights that the environmental peacebuilding lens can be applied at any point along the conflict to peace spectrum.

A second definition is: 'Environmental peacebuilding encompasses all forms of cooperation on environmental issues which simultaneously aims at or de facto achieves the transformation of relations between hostile parties towards peaceful conflict resolution.'[25] This definition focuses the lens on environmental issues, and sees environmental cooperation as developing trust between conflict actors.

A third definition posits that the trust built through cooperation over environmental issues will eventually spill over into other sectors of the economy, society and politics, thereby enabling lasting peace. According to this definition, environmental peacebuilding is 'the process through which environmental challenges shared by the (former) parties to a violent conflict are turned into opportunities to build lasting cooperation and peace'.[26]

A process for intervention

In addition to guiding conflict analysis, environmental peacebuilding can be used as a planning and intervention tool or process.[27] In this sense, it may be defined as a process for developing interventions into conflict situations with an environmental security element. It is not intended to be a one-size-fits-all approach or a specific, rigidly defined methodology. Instead the defining feature of environmental peacebuilding initiatives is that they are based on the same theory of change, namely that good environmental governance can foster peace and stability.

Part 2: Challenges of Environmental Security

This part establishes the relationship between the environment and conflict and argues that, while Australia is increasingly aware of the pressing and growing environmental security challenges in our region, the approaches being taken to address these are still piecemeal. As discussed in Part 1, environmental peacebuilding may provide a lens for better understanding, and a process for cohesively addressing, the root causes of complex conflicts—nascent, actual, or stabilised. It may therefore be an appropriate conceptual framework for the ADF to utilise when planning future operations or any multi-agency, multilateral, civil-military interventions in support of environmental security in the Pacific region.

It is almost a truism of the contemporary global security paradigm that natural disasters, environmental degradation, scarcity, the overexploitation of natural resources, and the effects of climate change will contribute to or exacerbate violent conflict around the world. However, the relationship between the environment, natural resources and conflict is complex, so approaches to peacebuilding must interlink solutions from various domains.[28]

Environmental degradation and resource scarcity

Environmental degradation, whether due to the effects of climate change or due to the exploitation of natural resources, undermines human security and therefore exacerbates grievances and lowers opportunity costs of violent behaviour.[29] How to operationalise that insight remains a challenge for governments invested in conflict prevention and mitigation and post-conflict stabilisation and peacebuilding in their spheres of influence.

Environmental peacebuilding may provide a useful approach to conflict analysis and multi-agency planning in these complex situations.

Environmental security recognises that ecological health is critical to maintaining (inter)national order because the environment is not endlessly abundant and is not perpetually resilient.[30] The friction with traditional conceptions of national security lies in the fact that environmental issues do not respect state borders or institutional jurisdictions.[31]

How, then, does environmental security intersect with national security considerations? First, it is important to understand that this relationship is not linear—resource scarcity and environmental degradation alone do not *cause* conflict. However, environmental factors certainly can be considered a threat multiplier, especially when accompanied by weak governance, ineffective institutions, and/or corruption.[32] The first challenge of environmental peacebuilding, therefore, is establishing government control over natural resources.[33]

The second thing to understand is that scarcity is a function of need, availability and allocation. Demand-induced scarcity is caused by population growth or an increase in per capita consumption rates, especially of water, food and energy. Supply-induced scarcity is caused by the overexploitation (including pollution) of resources to the point where options for pursuing productive livelihoods are undermined, thus potentially creating competition between livelihood groups. Third, structural scarcity is the inequitable distribution of resources or other benefits from the exploitation of natural resources.[34]

Violent conflict can also, either directly or indirectly, cause environmental degradation, as can sudden disasters such as cyclones, earthquakes, floods and fires. In other words, degradation of the resource base further compounds resource scarcity, creating a negative downward spiral.[35]

Climate change

Any environmental change—including climate change—can be a significant factor contributing to resource scarcity, migration and economic turbulence.[36]

All parts of the globe face the challenge of better balancing finite resources with increasing consumption. However, lower income and rapidly industrialising countries in particular face the tough question of trading off sustainability for economic development.[37] All states facing major climate hazards grapple with the costs of humanitarian and adaptation responses to mitigate the physical and livelihood risks threatening their populations. However, fragile states already struggling with issues of legitimacy in the social, economic, political and security spheres lack the capacity or funds to redirect limited resources to address climate-induced disasters.[38]

In other words, climate change is another threat multiplier,[39] and the most likely forms of climate change-induced conflicts will be small-scale, subnational conflicts in poor, undemocratic regions with a history of violence, strong dependence on natural resources, and low resilience or capacity to adapt to the effects of climate change.[40]

Exploitation of high-value resources

A more direct and better documented relationship exists between the exploitation of high-value resources and violent conflict. For example, the mining or cultivation of high-value resources or crops may fuel conflict by financing armed groups, and may magnify income inequality between groups or regions.[41] It can lead to the loss of local livelihoods and to social fragmentation and displacement, thus exacerbating tensions among local communities, the government and the private sector.[42] Nonetheless, extractive-led development is often promoted as a means to peace in conflict-affected situations where few, if any, other prospects for economic transformation exist, even though this carries inherent risks.[43]

At the same time, scholars argue and empirical evidence suggests that such challenges also offer opportunities to foster peace. Good governance of transboundary water resources, for example, has been known to enable dialogue and cooperation between otherwise conflicted nations.[44] There is an intuitive appeal to the logic that developing an extractive sector can contribute to peace and stability through economic development,

especially in conflict-affected contexts where governments struggle to attract foreign direct investment.[45] In theory, good governance of natural resources might support peace by encouraging dialogue between conflicting parties, delivering peace dividends and establishing interdependence.[46] It may be advantageous to Australia to test this theory on the numerous environmental security challenges facing the Pacific region.

Environmental security risks for Pacific islands

Climate change and related environmental security risks will be a major challenge for countries in Australia's immediate region. As the 2016 Defence White Paper points out, the effects of climate change will exacerbate the challenges of population growth, environmental degradation, and food and water security.[47] This has implications for Australia's national security and role as regional peace broker. The report of the 2018 Senate Inquiry into the Impacts of Climate Change on Australia's National Security devotes a whole section to regional vulnerability to climate risks.[48] The 2017 Foreign Affairs White Paper acknowledges that many countries in Australia's immediate region, especially small island states, will be severely affected by climate change in the long term.[49]

Natural disasters

Pacific island countries and territories (PICTs) are especially vulnerable to the effects of climate change. For example, often overlooked in the litany of risks but significant for the South Pacific is the threat of more frequent and more severe El Niño events as a result of climate change.[50] Disrupted weather patterns can have profound effects on all aspects of human health and prosperity. More intense rainfall events and storm surges affect the coastal environment, which in turn may lead to issues such as salt water intrusion into aquifers, loss of coastal agricultural land, and a better environment for the breeding of mosquitos.[51] More frequent floods, heatwaves, droughts and fires can also be expected, as can shifting disease patterns and threats to human health.[52] The consequences of these effects of climate change may include salination of crops, loss of territory and infrastructure, loss of livelihoods, and destabilisation of communities.[53]

Unsustainable land use practices, such as the deforestation of mangroves and forests, contribute to coastal erosion and make some areas more susceptible to flooding, while wide variations in the levels of assistance offered by central and local governments may perpetuate inequalities and vulnerabilities in some communities.[54]

While small Pacific island states most acutely bear the burdens of climate change, they are responsible for only approximately 1% of global carbon emissions.[55] This may add to the moral impetus for increased Australian assistance in relation to climate change related threats. In any case, the coming decade is likely to see an increased need for international disaster relief in the region.[56] Australia already has a strong record of providing this kind of assistance. Since 2016, for example, the Australian Defence Force has supported disaster relief missions in Fiji, Tonga, PNG, Indonesia and New Zealand. Some of these missions have deployed more Australian troops than were deployed at the height of the Afghanistan conflict.[57] In other words, disaster relief is likely to be an increasingly frequent and important operational consideration for the ADF.

Population displacement

Human displacement due to natural disasters, environmental degradation and rising sea levels is another climate change related risk facing the Pacific region that may also be a driver of ADF operations. Globally, more people are forced from their homes each year because of disasters than because of conflicts—disasters cause 61% of displacements.[58] The top 10 nations most at risk of displacement due to rising sea levels are all in the Indo-Pacific region, and more than 500,000 people in this region live in island states that may become uninhabitable between 2050 and 2100.[59]

Atoll nations such as Tuvalu, the Marshall Islands, Kiribati, Palau and the Federated States of Micronesia are facing the very real risk of losing their territories. Where will the people displaced by rising sea levels go, and what effects might this have on regional and global peace and security?[60] This is not a rhetorical question or one about a far-off future. Large numbers of people in Australia's immediate region are already beginning to move due to loss of land and other effects of climate change. Nearly one quarter of people from Kiribati have already moved due to climate change, and another 70% have said they will look to migrate if the adverse impact on their homes and country increases. Eight per cent of people from Tuvalu have already moved, while 70% have said they would consider moving, as have 35% of those on Nauru.[61]

What will happen when entire countries become disaster zones remains an open question. At present, migrating safely away from disasters without family connections or high levels of education is very difficult or even impossible.[62] The challenge is compounded by the lack of legal protections for people who are displaced across national borders as a consequence of climate events, as they cannot be defined as refugees under the 1951 Refugee Convention.[63] Some Pacific leaders do not advocate for climate change refugee status, instead preferring to develop 'stay and fight' policies and climate change adaptation measures. Others, however, have been lobbying for the concept of 'migration with dignity'.

Australia's role in supporting Pacific environmental security

While some adaptation strategies should be driven by Pacific nations themselves, there remains an opportunity—and a need—for Australian support. This is as much in the interest of regional stability and prosperity as it is in Australia's national security interests. Our strategic weight, proximity and resources place high expectations on us to respond to instability or natural disasters. As previously mentioned, the 2016 Defence White Paper points out that climate change means Australia will be called on to do so more often.[64]

There are already numerous declarations, frameworks, roadmaps, partnerships and other multilateral processes that enable international assistance for the purpose of increasing the resilience of PICTs in the face of climate change and other environmental security risks. In 2008, for example, the leaders of Pacific Islands Forum nations signed the Niue Declaration on Climate Change, which affirmed that climate change adaptation is a critical response for Pacific governments, and one that requires urgent support from regional agencies and development partners alike.[65] Ten years later, the Pacific Islands Forum reiterated that message in stronger terms in the Boe Declaration, which states that climate change is not a scenario of the future but a present reality and an existential threat to the people of the Pacific.[66]

The 2019 Kainaki II Declaration establishes that there is a climate change crisis facing Pacific island nations, and commits to a regional 2050 strategy to secure the future of the Blue Pacific. It also reiterates a number of Pacific-led initiatives, such as the Framework for Resilient Development

in the Pacific and its inclusive Pacific Resilience Partnership, as an integrated approach to address climate change adaptation and disaster risk management.[67] The timing and tone of the Kainaki II Declaration are pointedly directed at Australia's perceived inaction on climate change,[68] and the declaration questions the effectiveness of Australia's Pacific Step-up foreign policy initiative.[69]

Also in 2019, the Pacific Islands Development Forum—the brainchild of the Fijian government, which sought a forum to engage with Pacific island nations without the influence of Australia and New Zealand—released the Nadi Bay Declaration, which called on coal-producing countries (like Australia) to cease all production within a decade. From the perspective of Canberra, however, a compromise of this sort on climate change would undermine Australia's economic growth. This is the key stumbling block to Australia answering its Pacific critics with action.[70] The political inaction on climate change risks in the Pacific region is also at odds with how seriously the ADF is taking these issues,[71] which further undermines cohesive and decisive action.

Defence policy on environmental security concerns

Considering the gravity, complexity and potential consequences of environmental and climate change related security risks, it is not surprising that Australia has started to pay attention. Nonetheless, translating the growing body of evidence about environmental security into Defence policy, let alone Army doctrine, remains a challenge.

In 2018, the Senate Inquiry into the Implications of Climate Change for Australia's National Security concluded that climate change is indeed exacerbating threats and risks to Australia's national security.[72] In its report the inquiry made a series of recommendations with the intended cumulative effect of strengthening Defence capability in to address the threats posed by the effects of climate change, including by increasing the knowledge and capability of national security agencies to deal with climate security issues.[73] Although environmental peacebuilding is not mentioned explicitly in the Senate inquiry report, such an approach to assessing and addressing nascent environmental threats can be seen as consistent with the intent of the Senate's recommendations.

Similarly, the 2017 Foreign Affairs White Paper warns that 'Climate change, environmental degradation and the demand for sustainable sources of food, water and energy will be political, economic and security disrupters over the longer term', especially in fragile states in our region, thereby affecting Australia's economic interests and national security.[74] The combination of state fragility and environmental stresses will, the Foreign Affairs White Paper points out, amplify a range of threats to Australia's people, borders, economy and infrastructure.[75]

The 2016 Defence White Paper also draws attention to the complexity and growing significance of environmental security issues. Indeed, it identifies one of the six key drivers of threats to Australia's national security as 'state fragility, including within our immediate neighbourhood, caused by uneven economic growth, crime, social, environmental and governance challenges and climate change'.[76]

The 2016 Defence White Paper also stresses the importance of sustainable management of the Defence estate, and notes that the Government expects Defence to take its environmental stewardship responsibilities seriously.[77] In light of the important role that militaries and defence organisations can play in conservation and environmental stewardship, in 2016 the Secretary of the Department of Defence and the Chief of the Defence Force launched the Defence Environmental Policy.[78] Although the mitigation of environmental impacts from Defence's activities is not the focus here, it is worth pointing out that Defence's increasing expertise in environmental stewardship and expanding set of standard operating procedures can inform peacebuilding operations in the region.

Part 3: Why Should the ADF Consider Adopting an Environmental Peacebuilding Framework?

In light of the challenges that a changing climate, resource scarcity, environmental degradation and the inequitable governance of natural resources pose for socio-political stability and security, why might environmental peacebuilding be a useful approach for the ADF? This part of the monograph begins by establishing the challenges that the ADF faces in addressing environmental security threats in the Pacific region currently. It then explores the application of environmental peacebuilding while also questioning some weaknesses of the approach. It concludes with a discussion of how the various aspects of environmental security and environmental justice may be operationalised.

Challenges in addressing environmental security threats

The 2016 Defence White Paper sets the expectation that Australia is to 'play an important regional leadership role'.[79] Despite this expectation, reality dictates that there are many challenges for Australia generally, and the ADF particularly, in taking on real leadership in addressing regional environmental security threats.

At a time when the ADF is beginning to consider environmental security risks in the Pacific region seriously, the New Zealand Defence Force is already taking the lead on these issues. The current political context of New Zealand—in contrast to Australia's—encourages a collaborative and forward-thinking approach. New Zealand is collaborating with the United Kingdom on the Wilton Park Forum on Resilience and Climate Change in

the Pacific. This is a platform that aims to put the international spotlight on Pacific challenges, and to develop long-term global responses for effective climate action in the region.[80] More importantly, New Zealand has a strong relationship with the leaders of Pacific island countries and territories, listens to the concerns of the Pacific nations as a starting point for action, and is committed to carbon emissions reduction.[81]

The current political context in Australia is not as conducive as New Zealand's to strong regional leadership on these issues. Accordingly, the ADF seems to be thinking about environmental security in the region in more general terms. It has made broad promises to strengthen the regional security architecture[82] and to continue supporting cooperative bilateral arrangements such as those with the Papua New Guinea Defence Force and Department of Defence.[83] The ADF is also a member of the Pacific Environmental Security Forum, a program of the US Indo-Pacific Command that aims to increase regional militaries' understanding of environmental security issues, promote their environmental stewardship obligations, and coordinate efforts with civilian agencies and non-governmental organisations (NGOs) for whole-of-government and whole-of-society solutions.[84] However, aligning too closely with US-led initiatives may undermine opportunities for Australia to take the lead on security in the Southwest Pacific.[85]

Increasing role in disaster relief

Nascent environmental and climate-related risks in the Pacific region will increase demands on the ADF for disaster relief,[86] and the 2016 Defence White Paper commits to providing humanitarian and security assistance where required.[87] However, the ADF was not established for humanitarian assistance roles.[88] Disaster relief missions are costly and resource intensive.[89] For example, the largest vessels the Royal Australian Navy has ever deployed, HMAS *Adelaide* and HMAS *Canberra*, are now more often likely to be contributing to humanitarian missions in response to climate-related disasters than playing a combat role.[90]

Furthermore, the use of ADF capability in this way entails some opportunity costs, such as the temporarily diminished capability to simultaneously respond to domestic disasters or other incidents. To enable the ADF to better manage these increasingly frequent and potentially competing disaster relief missions, the 2018 Senate inquiry recommended the creation of a senior Defence leadership position to plan and manage these missions.[91] This may, in time, also become an opportunity for increasing Defence leadership and capability in environmental peacebuilding.

Limited perspective

Another challenge for Australia in responding to the growing demand for disaster relief and other environmental security related assistance in the Pacific is the generally low level of regional expertise among our leaders, policymakers and national security analysts, as well as in the general public. For example, many Australians think Pacific countries are only interested in a cash grab. This low 'Pacific literacy' puts Australian economic, political and strategic values and priorities well above those of Pacific peoples.[92] That, in turn, limits opportunities for meaningful engagement and peacebuilding, which is primarily based on trust and collaborative relationships. As the Pacific islands region again finds itself in Australia's geopolitical front yard after decades of being relegated to 'backyard status',[93] these attitudes may need to shift.

One symptom of Australia's limited perspective on regional climate security risks is the diplomatic tension developing because of our stance on coal. Pacific leaders, concerned about their region being especially vulnerable to climate change risks,[94] have consistently expressed the urgent need for climate action and have criticised Australian reliance on coal. Coal, however, is Australia's line in the sand. This stance led to a long and tense meeting at the 2019 Pacific Islands Forum with no unanimous endorsement of the Tuvalu Declaration, which was to encourage all countries to revise national targets for a more rapid reduction in greenhouse gas emissions.[95]

Australia's political stance on climate change is becoming untenable in the Pacific, and our inability to meet Pacific islands' expectations will erode our influence and leadership credentials in the region. That, in turn, may provide opportunities for other countries to increase their influence in the region.[96] This is a further challenge and consideration for Australia in increasing support for environmental security and climate risks.

Increasing securitisation

Countries from outside the South Pacific will seek to continue to expand their influence in the region, including through enhanced security ties.[97] At the same time, geopolitical instability in the Pacific, including that related to environmental security and the effects of climate change, could have strategic consequences for Australia should it allow increased influence of what the 2016 Defence White Paper euphemistically refers to as 'actors from outside the region with interests inimical to ours'.[98]

Countering Chinese influence in the Pacific is certainly in Australia's security interests, but it is a secondary issue for the Pacific.[99] Indeed, China's increasing economic influence in the region has been largely welcomed by Pacific island governments.[100] Unlike Australia, China has not claimed the moral high ground and is an attractive alternative partner. Thus it is unsurprising that China's influence in the Pacific is increasing.[101]

Nonetheless, our government's recent Pacific Step-up is premised on the argument that the sovereignty of Pacific states needs safeguarding from Chinese strategic designs.[102] Among other measures, Australia has partnered with the United States to redevelop a naval base on Manus Island in PNG, where Australian Navy vessels could be based permanently.[103] Australia provided a better offer than China to redevelop a Fijian military facility for police and peacekeeping training. Australia is also funding much of the installation of a high-speed communications cable connecting Australia, PNG and Solomon Islands rather than allowing the Chinese company Huawei to get the contract.[104]

The recent deployment of military infrastructure in the region, and the nature and tone of Australian research, policy and discussions about the Pacific, is cause for concern among Pacific leaders and experts about Australia's securitisation of the region.[105] For example, in 2019 an announcement was made that a Pacific Security College—intended to bolster security cooperation in the Pacific islands—is to be established at the Australian National University but answerable directly to the Department of Foreign Affairs and Trade. This initiative illustrates the securitisation of Pacific studies and of academic spaces and discourses about Oceania. Similarly, the dearth of indigenous Pacific Islander scholars working in Australian institutions is also a problem.[106]

Essentially, Australia does not seem to be tackling the real security issues that are of actual concern to Pacific Islanders. Climate change is central to the concept of security desired by Pacific islanders, with island countries identifying this as their single most important security issue. However, Australia's Pacific Step-up has arguably ignored the interests and priorities of Pacific countries—environmental, cultural and human security—and instead focused on increased securitisation.[107]

If winning the geopolitical contest with China in the Pacific is a priority in Australia's national security interests, then far greater creativity will be needed. Meeting the Pacific halfway on climate change is a prerequisite for success.[108] Environmental peacebuilding may provide one creative approach to achieving this.

Operationalising the concept of environmental peacebuilding

Designing a process

A possible three-step environmental peacebuilding process is: first, establish cooperation about environmental issues; second, create interdependence and trust between parties; and third, transform values and enable positive sum outcomes. Needless to say, this simplistic breakdown belies contextual complexities. Additionally, failure can occur anywhere along this timeline, with the potential to frustrate and alienate hostile groups even further.[109]

Another way of using environmental peacebuilding as a process is to see three trajectories—technical, restorative and sustainable environmental peacebuilding—each deconstructed into three main building blocks. These building blocks are the initial conditions, mechanisms and outcomes of environmental peacebuilding. In this sequence, each building block corresponds to when, how and why conflicting parties can engage in environmental cooperation and peacebuilding.[110] The environmental peacebuilding process therefore investigates:

1. Initial conditions: when do conflicting parties choose to cooperate rather than compete over natural resources?
2. Mechanisms: how do parties address shared environmental challenges?
3. Outcomes: why do they do so and what are the expected, versus actual, benefits?[111]

Based on the answers to these questions, three trajectories of environmental peacebuilding emerge.

The first trajectory, technical environmental peacebuilding, aims to reduce environmental scarcity and degradation in a conflict context by using technical solutions implemented through coordinated action.[112] The

second trajectory, environmental peacebuilding, is grounded in the restorative dimensions of peacebuilding and provides shared spaces to acknowledge past injustices and recognise the other as a legitimate interlocutor. Under certain conditions, environmental issues may stimulate positive interactions by creating alternative, neutral spaces where conflicting parties can exchange on shared values and break down mutual stereotypes.[113] The third and final trajectory, sustainable environmental peacebuilding, addresses the root causes of potential conflicts by focusing on equitable resource distribution. When based on symmetrical power relations, joint management of environmental systems can lead to positive sum outcomes and collective action.[114]

Navigating the complexities

In practice there is much overlap between the trajectories of environmental peacebuilding, and the situation may switch between trajectories or building blocks in a feedback loop. Over time, the conditions, mechanisms and outcomes of environmental peacebuilding interact with environmental and political changes. This may cause parties to deviate from planned strategies and alter the balance of power. At the same time, environmental change may trigger resource conflicts and downscale cooperative efforts, or environmental crises may bring conflicting parties to cooperate more closely.[115]

In other words, environmental peacebuilding is rarely linear. Several trajectories can overlap or be combined, resulting in hybrid trajectories, the actual outcomes of which do not necessarily match those expected. Instead of spilling over to broader peace, initiatives that follow hybrid trajectories can reinforce underlying inequities and conflicts—for instance, when they are based on asymmetric relations or fail to acknowledge the local actors and evolving context.[116]

To manage this spillover effect in the environmental peacebuilding process, it is critical to consider—and keep reconsidering—the local context. It is essential to understand the root causes of conflict, the interaction of natural resources with other conflict drivers, the broader political economy, and the locally appropriate entry-points for a mediated solution.[117] The literature stresses the importance of the context in which environmental peacebuilding is applied, as it is the context that will determine the different mechanisms through which environmental cooperation may be achieved.[118] Equitable outcomes are only possible by responding to the specific grievances and root causes of conflict in the context in which they are

being sought. Tailored environmental governance structures are appropriate for managing common-pool resources as they seek to account for the complexity of social-ecological systems.[119]

Equitable outcomes and environmental justice are the ultimate goal of sustainable environmental peacebuilding. By enabling an equitable distribution of natural resources, environmental peacebuilding promotes social and environmental justice and sustainable development.[120] What is environmental justice? It can be understood as the fair treatment and meaningful involvement of all people, regardless of race, colour, national origin or income, with respect to the development, implementation and enforcement of environmental laws, regulations, and policies.[121] Environmental justice can also be understood as the fulfilment of three criteria: (1) equitable distribution of environmental goods, benefits and risk; (2) recognition of the diversity, culture and experience of affected stakeholders; and (3) full democratic participation in the processes that draft and manage environmental policy.[122]

The relevance of environmental justice to environmental peacebuilding is clear. However while the literature on environmental peacebuilding sometimes equates peace with justice, it is important to note that they are not necessarily the same phenomenon. While the focus of international interventions, foreign aid and stabilisation operations tends to be on quelling violence, anecdotal evidence suggests that some communities in volatile contexts may be more interested in environmental justice and the equitable allocation of natural resources than in peace.

Another potential drawback of environmental peacebuilding is that it remains largely dominated by rational choice and neoliberal conceptions of the biophysical environment. Because of this, many environmental peacebuilding initiatives focus on the market value of natural resources and aim for win-win solutions though economic recovery and the creation of livelihoods. This approach is not necessarily sustainable in the long term if it does not correspond to local capacities and priorities, such as multifaceted and enduring environmental problems and the social, cultural and political identities that are vested in the immaterial values of natural resources.[123]

Lastly, another challenge for environmental peacebuilding is that of avoiding unintended consequences. For example, if certain groups or stakeholders are excluded from the decision-making process, then new grievances may arise. In deeply divided societies, one interest group's advantage may come at the expense of another, and thus lead to further marginalisation and exclusion.[124] In other cases, the environmental peacebuilding process may succeed in stabilising the society but not result in environmentally friendly solutions.[125] These are all important considerations for Australia as our interest in regional environmental security increases.

Opportunities for environmental peacebuilding in the Pacific region

For the purposes of the ADF in the Pacific region, environmental peacebuilding may be useful both as an analytical lens and as a process.[126] As an analytical lens, it should focus on identifying inequitable outcomes from the distribution of benefits of natural resources, and identifying opportunities for environmental justice. As a process, it should aim to shift power dynamics—for example by empowering women—to create cooperation over environmental governance that will ultimately lead to collaborative interdependencies fostering peace and stability. This concept is further explored in the following parts in relation to three specific situations in the Pacific region.

Parts 4, 5 and 6 of the monograph explore three specific issues or situations that may be better understood through an environmental peacebuilding lens, or that could benefit from an ADF-led environmental peacebuilding process.

The first of these is Australia's role in peacekeeping efforts following the Bougainville civil war in the 1990s, and prospects for future peace and prosperity as Bougainville moves towards independence from Papua New Guinea. The onset of violence in the late 1980s was precipitated by the inequitable distribution of benefits from Bougainville's large foreign-owned copper mine. The unresolved question of how to govern Bougainville's natural resources may again emerge as a source of conflict—or of cooperation. Reassessing the civil war through an environmental peacebuilding lens reveals insights that may be valuable to the ADF in preparing for future developments.

The second is a set of issues relating to the exploitation of a critical natural resource: fish stocks. Specifically, the analysis focuses on security risks facing regional fisheries, including those that arise from the conduct of modern fishing operations. Risks facing fisheries include overfishing, pollution and the effects of climate change. Security risks related to fisheries include illegal fishing, organised crime, human trafficking and the securitisation of the maritime realm. Understanding these risks and the impact of natural resource exploitation on livelihoods, human security and local economies is critical to the success of Australian assistance in the region, such as the Pacific Maritime Security Program.

The third is a set of effects of climate change—an environmental security challenge to which the ADF is already responding and one that may continue to strain its capacity. One of the effects of climate change is an increase in the frequency, intensity and unpredictability of natural disasters such as cyclones. Pacific islands are especially at risk, and the ADF is increasingly engaging in disaster relief missions in the region. However, when disasters and other effects of climate change, such as rising sea levels, begin to affect ethnic or other groups in conflict with each other, as is the case in Fiji, then a new approach may be needed. The displacement of populations due to the effects of climate change and other environmental factors also poses an opportunity for applying the principles of environmental peacebuilding.

Part 4: Copper and Conflict in Bougainville

Bougainville is a textbook case study in 'successful' peacekeeping,[127] and an excellent example of cultural peacebuilding. However, the success of the international peacekeeping efforts and subsequent stability in Bougainville was based on a deliberate strategy of deferring the resolution of environmental and natural resource governance issues that significantly contributed to the civil war. Now, with Bougainville having gone to a referendum in November 2019 on the question of independence from PNG, those issues are likely to come to a head. Specifically, if the matter of who should benefit from Bougainville's sizeable but currently dormant copper reserves is not resolved according to the principles of environmental justice, then instability and even violent conflict is possible. Furthermore, if instability does ensue, the Autonomous Bougainville Government will be likely to seek support or intervention from regional powers, including Australia.

Although Australia has a positive track record of peacekeeping and peacebuilding in Bougainville during the late 1990s and early 2000s, much of the institutional memory from this period is gone or may not be available during the planning of any near-future ADF intervention in Bougainville. Australian troops who are most likely to be sent on a peacebuilding mission to Bougainville in the coming years are unlikely to have even been born during the years of the civil war, let alone grown up with news of the Bougainville conflict shaping their professional consciousness. Instead, these troops will be of a generation for whom the concepts of violent conflict and military intervention have largely been shaped by the protracted insurgencies in the Middle East region. The experience of the ADF in East Timor and the Solomon Islands in the early to mid 2000s may also seem like distant history. By contrast, the ADF's recent operational experience in the Pacific has been primarily disaster relief. In short, the ADF may not be well prepared to respond

to conflict less than war in the Pacific region, especially conflict related to the overexploitation of natural resources and exacerbated by the effects of climate change.

Colonial legacies and the resource curse

Bougainville is the largest of several islands that form the Autonomous Region of Bougainville in PNG. The islands of Bougainville were part of German New Guinea from the 1880s until World War I, when they became annexed to Australia's New Guinea territories.[128] In this colonial period lie the roots of tensions between Australia, PNG and Bougainville. Causes of conflict were further solidified in 1975 when Bougainville became part of an independent PNG.[129] This was considered by many an artificial boundary and constitutes one root of modern secessionist unrest.[130] The approximately 300,000 inhabitants of Bougainville[131] are ethnically much closer to the people of the western Solomon Islands and feel little if any kinship with the 'redskins' of PNG.[132]

There are 19 main language groups on Bougainville, with significant cultural differences between them contributing to intergroup conflict. However, counterbalancing the tradition of conflict is a long tradition of ritualised reconciliation and well-established conflict resolution mechanisms. Women in particular play a significant role in this and have significant behind-the-scenes influence. Indeed, most Bougainvillean societies are matrilineal (though not matriarchal).[133] The exclusion of women from decision-making processes around the exploitation and management of Bougainville's copper resources contributed to the conflict of the 1980s and 1990s, as did the privileging of some ethnic and linguistic groups over others.

Panguna copper mine

The discovery of copper deposits on Bougainville in the 1960s led to the establishment by Conzinc Riotinto of Australia (CRA)[134] of the Panguna copper mine—for a time the world's largest open pit mine.[135] The Panguna mine started production in 1972, operated by CRA subsidiary Bougainville Copper Ltd (BCL) with the PNG government as a 20% shareholder.[136] It was the largest source of revenue for PNG, besides foreign aid, until unrest forced the mine's closure in 1989.[137]

Most Bougainvilleans perceived the Panguna mine as an exploitation of their resources by foreign forces.[138] The people of Bougainville saw the majority of profits being taken by the Australian parent company and going to support the fledgling independent political, economic and social infrastructure in PNG.[139] Bougainville bore the brunt of the costs associated with the exploitation of the mine, without seeing the benefits.[140]

Under the PNG Constitution, land ownership extends to just below the surface of the soil—and therefore all mineral rights belong to the state. Bougainvilleans have a different concept of, and connection to, the land.[141] The significance of traditional ownership over natural resources and stewardship of the environment was ultimately made explicit in the 2004 Constitution of the Autonomous Region of Bougainville, but not before significant social, economic, and environmental damage had been done.

Pollution of the rivers by the tailings of the mine was so extreme that local agriculture was devastated, and the health of the river systems may never be fully restored.[142] Seeing that mining land would never be restored to its natural state left many Bougainvilleans resentful that their traditional lives would be lost forever.[143] Furthermore, the construction and operation of the Panguna mine brought mainland Papuans to Bougainville, creating ethnic tensions.[144] Intergroup tensions were also exacerbated by the displacement of many local landowners[145] and by substantial payouts going to certain landowner groups but not to others.[146]

Civil war

The Nasioi language group in particular were favoured, as the Panguna mine was developed on their traditional land.[147] But the mine also impacted and altered Nasioi society, with profound implications for the course of the Bougainville conflict and the subsequent struggle for independence from PNG. For a start, the community of about 14,000 people with limited contact with the rest of the world was suddenly flooded with some 10,000 international mine workers. Some Nasioi were employed by the mine and received education and training, but this had the unintended consequence of giving a group of young Nasioi the social and cultural resources to take political action against BCL.[148]

In 1988, disgruntled Nasioi landowner, former BCL surveyor and future secessionist leader Francis Ona led a series of sabotage attacks on the mine[149] because attempts to renegotiate royalty agreements with BCL had failed.[150] The PNG government sent riot police and then the military to quell the violence, without success.[151] By 1989 the Panguna copper mine had shut, and a nine-year civil war began.[152] Approximately 12,000 to 14,000 people were killed[153] and around 60,000 displaced[154] during the years of violent conflict, which also gave rise to the Bougainville Revolutionary Army and the secessionist movement.[155]

In addition to empowering military groups, the Bougainville civil war led to a variety of parallel structures competing for power, authority and influence. They included interim and transitional governments, new and competing forms of local government (such as the Area Councils of Chiefs), and women's organisations that were also aligned with competing political forces. The conflicting needs and demands of these different groups complicated peacekeeping operations.[156]

Building peace in Bougainville

Despite the complexities of the conflict and the competing interests of various groups in Bougainville, the peacekeeping operations and the peace process in general are considered very successful in the sense that there have been no further breakouts of major violence. Australia, and the ADF in particular, can take some of the credit for this success. However, there are also lessons to be learned from these experiences, and pitfalls to be avoided in any future ADF involvement in peacebuilding in Bougainville.

Australia and the peace process

The Bougainville conflict put Australia in a difficult position. The view of then Prime Minister Bob Hawke was that Bougainville must remain an integral part of PNG; but there were loyalties to the Bougainvilleans too, and ultimately Canberra sought to facilitate truce talks between the parties to the conflict.[157]

From 1997 the Australian Army, as part of a coalition of civil and military personnel from throughout the region, assisted in the maintenance of a ceasefire that paved the way for the diplomatic peace process.[158] Although the people of Bougainville initially distrusted Australian motives

in the intervention, Australians' desire to help was grounded in strong emotional reasons because many Australians served and died in PNG and Bougainville during World War II.[159]

The fragile peace process began in the early 1990s, encouraged by Australia and the wider Pacific community. It consisted of several peace conferences between Bougainville and PNG, interspersed with resumptions of violence. New Zealand-sponsored talks in 1997 led to the deployment of a new peacekeeping mission to the island, the New Zealand-led Truce Monitoring Group (TMG), which was a mix of military, police and government agency personnel from Australia, New Zealand, Fiji and Vanuatu.[160] Later this was renamed the Peace Monitoring Group (PMG) and came under Australian leadership.[161] By 2001, PNG and Bougainville had reached a peace agreement, and the international missions withdrew in 2003.[162]

Both the TMG and the PMG were neutral, unarmed monitoring missions. Unlike most contemporary peace operations, these missions had no direct role in civilian governance, policing or security provision, all of which remained the responsibility of local authorities. The sole purpose of the missions was to support the peace process through logistics, monitoring, verification, mediation and confidence-building.[163]

New Zealand and the Pacific Way

There were significant differences between Australia's approach to reconciliation and peacebuilding, and that of New Zealand. Examining these differences allows us to test some principles of environmental peacebuilding as applied in a real-world scenario.

Australia's approach to peacekeeping and peacebuilding in Bougainville was institutionalised and more concerned with the outcome than with the process.[164] The Australian Army focused on improving communications between the civilian and military components of the PMG, with joint pre-deployment training exercises, including; engagement with local indigenous peoples; introduction to the Tok Pisin language; and training in basic military skills.[165]

In contrast, New Zealand's approach to peacebuilding in Bougainville had principles in common with environmental peacebuilding processes: emphasis on context-specific interventions; empowering local actors; and ensuring an equitable process, not just an equitable solution.[166]

For New Zealand the focus was on understanding and leveraging local culture, custom and concepts of reconciliation to support a fair process—but not to drive a specific agenda.[167]

While Australia advocated for a top-down strategy, New Zealand chose not to adopt any doctrinal peacekeeping solution, preferring instead to work out what was needed from first principles and talking to all involved.[168] Discussions with the Bougainville Revolutionary Army and the PNG government revealed a firm preference for an unarmed peacekeeping force because it would offer a good model to the young guerrillas, who would be able to see that professional soldiers could work without weapons.[169] New Zealand therefore planned for the troops of the TMG to be unarmed—something Australia initially opposed. This proved to be a clever tactic: Bougainvilleans felt safe because the TMG (and later PMG) was unarmed. They respected the internationals for coming in unarmed, and they felt an obligation to protect the foreign peacekeepers.[170]

The focus on understanding local context before doing any military planning allowed New Zealand to realise that the strong position women had enjoyed in pre-crisis Bougainville had eroded and that many of the local women's organisations had ceased to function or had lost their focus during the conflict. Women in the TMG worked with Bougainville women's groups to help revive these organisations, and women's delegations attended various peace conferences. It was also significant that many women, both civilian and military, were part of the TMG and PMG, because they provided a positive example to the local communities and also because local women wanted to talk to the women on patrol with the monitoring teams about their problems.[171]

Similarly, New Zealand understood the importance of including Pacific and indigenous members in the TMG. The teams included Maori personnel to illustrate that another culture could respect diversity and minorities, and all team members were enjoined to respect local customs and hierarchies.[172] At one point after some failed peace talks, New Zealand arranged a study tour for Bougainville leaders to expose them to the Maori experience of being a nation within a state, dealing with a 'foreign' government and dealing with internal tribal divisions.[173]

The TMG and PMG were also unique in utilising traditional Pacific concepts and rituals of reconciliation. Reconciliation is a deeply emotional and spiritual experience in Melanesian cultures: repairing broken relationships and restoring harmony is not only about relationships between people but also about relationships with God and the spirits of the dead. Although many Bougainvilleans doubted that the internationals understood the full meaning of reconciliation, the peacebuilding missions respected and encouraged the appropriate cleansing rituals.[174]

In short, the guiding principle for the interventions was to respect the Pacific Way—the idea that Pacific problems require Pacific solutions.[175] The Pacific Way involves sitting and thinking about the process and getting that right. Once the participants are happy with the process, solutions are likely to follow. In the case of Bougainville, personal attributes such as patience, flexibility, consideration of other points of view and inclusiveness were more important to the peacebuilding process than any systems or institutions that may have appealed more to Western sensibilities.[176]

Successful peacebuilding at the expense of environmental justice?

The extent to which cultural sensitivities were taken into account during the peacekeeping and peacebuilding phases was an essential reason why the conflicted parties were able to reach agreement and return to relative stability. However, this agreement was largely made possible by postponing a resolution of the issues around reopening the Panguna copper mine, and more generally around the governance of Bougainville's natural resources.

Because the peacebuilding efforts did not attempt to address the environmental justice issues at the heart of the conflict, they cannot be called an environmental peacebuilding process. But the ultimate success of the TMG and PMG in establishing stability does illustrate the effectiveness of some of the principles of environmental peacebuilding—the intervention was context-specific, empowered local actors, and prioritised an equitable process. The ADF may wish to keep this in mind in planning any future potential interventions in Bougainville and beyond.

2001 Bougainville Peace Agreement: seeds of peace, seeds of tension

Peace talks between the PNG government and Bougainville leaders continued until the signing of the Bougainville Peace Agreement on 30 August 2001.[177] On 21 December 2004 an agreed constitution for the Autonomous Region of Bougainville was gazetted by the PNG government. This paved the way for the peaceful election of the first Autonomous Bougainville Government (ABG) in May and June 2005.[178]

Notably, at no point during these years was the reopening of the Panguna copper mine seriously discussed. It was, and remains, an extremely sensitive topic for Bougainvilleans. The assumption underlying the peace negotiations was that the mine would not be able to be reopened in the foreseeable future. Accordingly, the mine was not mentioned in the Bougainville Peace Agreement; nor were mining issues adequately addressed in the Constitution of the Autonomous Region of Bougainville. The consequence is that today, mining issues remain inconclusive and potentially divisive.[179]

One potential source of tension is the ambiguity around revenue sharing. The 2001 Bougainville Peace Agreement states that once Bougainville reaches fiscal self-reliance, its revenues will be shared between the ABG and PNG—but the agreement gives no formula for how this is to be done.[180] This issue may have to be resolved before copper revenues are allowed to flow back into Bougainville.

A second, and perhaps more pertinent, source of tension is governance of Bougainville's natural resources. The powers of the PNG government and the ABG are clearly listed in the 2001 Bougainville Peace Agreement; they do not include control of mining or natural resources.[181] Instead, the agreement states that the powers and functions of the PNG government could be ascribed to the ABG through its constitution. However, while the Constitution of the Autonomous Region of Bougainville makes explicit the right of the ABR to, among other things, collect revenues and exercise decision-making power on foreign investments,[182] it leaves authority over natural resources and mining unclear.

The Constitution of the Autonomous Region of Bougainville has numerous clauses relating to environmental protection and presents general principles for governance. For example, every Bougainvillean has an obligation to 'protect and manage the land and to protect the environment',[183] and the

ABG is tasked with promoting sustainable development and preventing or minimising damage to 'land, seas, air and water resources from pollution or other causes'.[184] The constitution also makes the ABG responsible for the 'restoration of damage caused by mining operations and other major resource projects'.[185] But it also states that all laws and policies relating to the development of 'the land and the sea and natural, mineral and oil resources of Bougainville' must take into account the recognition of customary rights of the people of Bougainville.[186] This may result in a tension between the authority of the ABG and the traditional systems of government.

The constitution is clear that the roles and responsibilities of traditional chiefs and other traditional leaders include matters relating to customary land and the preservation of the environment, and that these must be recognised by all levels of government in Bougainville.[187] This complicates the question of who has authority over Bougainville's copper. However, it also presents an opportunity for environmental peacebuilding processes to support positive-sum outcomes and for any benefits of copper mining—or other natural resource exploitation—to accrue not only to the government or international interests but also to the people of Bougainville.

2019 Bougainville referendum: more autonomy, more urgency

The governance arrangements established under the 2001 Bougainville Peace Agreement and the 2004 Constitution of the Autonomous Region of Bougainville will undoubtedly be put to the test as Bougainville heads towards greater autonomy from PNG following a referendum on 23 November 2019. The referendum on Bougainville's political future was one of three pillars of the peace agreement, along with demilitarisation and greater autonomy. The Bougainville Peace Agreement provided for the referendum to be deferred until the autonomy arrangements had been operating for at least 10 and no more than 15 years—ergo the referendum had to be held within a five-year window between mid-2015 and mid-2020.[188]

The reason for deferring the question of independence for so long was to allow the other two elements of the peace agreement—demilitarisation and greater autonomy—to have been operating long enough to enable development of relationships quite different from those existing in the immediate post-conflict situation.[189] While greater autonomy has been achieved, the challenge for the post-referendum ABG remains its lack of capacity to deal with issues left unresolved by the peace process of 20 years ago: the unfinished business of Panguna, the drawdown of powers

from PNG, and the specifics of governance arrangements that respect the rights of customary landowners while retaining some authority over natural resources.

The issue of Panguna is likely to be the most contentious. While some Bougainvilleans support the reopening of the copper mine as soon as possible, others advocate for waiting until after full independence from PNG has been achieved.[190] The Me'ekamui, a political movement claiming to be the legitimate representative of landowners around the Panguna mine, has been particularly vociferous in its opposition, and physically controls the site.[191] It is likely that reopening Panguna in the foreseeable future would involve revisiting the same issues that triggered the conflict in 1988.[192] It follows that if a peaceful reopening of the mine is going to take place, the concerns of all stakeholders have to be addressed.[193]

Since 2012, the United Panguna Mine Affected Landowners Association has been meeting with representatives from the PNG government and the ABG, as well as Bougainville Copper Ltd., as part of a transparent and inclusive decision-making process about the question of reopening the mine.[194] However, there are numerous and often complex issues and considerations of environmental governance that need to be resolved before the question of Panguna can be answered. Significantly, the ABG does not currently have the capacity or the legal powers to reopen the mine. As it has no substantial revenue and is dependent on the PNG government for grants, it is very difficult for the ABG to draw down powers from the PNG government, including those relating to mining.[195] This is likely to be a flashpoint in the independence process in the immediate future.[196]

The issue of the rights of customary landowners vis-à-vis natural resources is also a potential flashpoint. The Bougainville Constitution recognises that ownership of all natural resources lies with traditional landowners, thereby putting them in a dominant position. This is problematic because the ABG currently has no systems or institutions to assess competing claims between those who assert customary ownership, or to allocate legal rights that override custom and give sufficient confidence to investors and financiers in the durability of investment law.[197] Any future environmental peacebuilding process will need to take this into consideration and support the people of Bougainville in peacefully developing appropriate environmental governance processes and systems.

Part 5: Climate Change and Crime in Regional Fisheries

Fish stocks are a valuable natural resource the world over, and commercial fishing can be considered another type of extractive industry. As with any natural resource, scarcity and competition can lead to conflict. For example, competition between Ugandan and Kenyan fishermen over access to a remote island in the middle of Lake Victoria led to a violent conflict, sometimes called 'Africa's smallest war', and continuing tension.[198] Considering the known links between fisheries and conflict, the numerous and interrelated security issues arising from overfishing, criminal activities, and the effects of climate change may be viewed through an environmental peacebuilding lens.

The Pacific region has been well endowed with fish stocks but these are rapidly depleting as domestic and international demand rises. This makes this natural resource even more valuable and therefore vulnerable to overexploitation through illegal, unreported, or unregulated fishing. Pacific fisheries are also associated with other organised crime, human trafficking, wildlife smuggling, and corruption. As PICTs are generally characterised by state fragility, weak economies, social instability, and high dependence on fish for food and livelihoods, these threats to and from regional fisheries may contribute to conflict as competition increases for already overexploited fish stocks and the effects of climate change put further strain on this natural resource.

Threats to and from fisheries

The sustainability and stability of the region's fisheries is of national security interest to Australia. As the 2017 Foreign Affairs White Paper notes, the demand for seafood, especially from Asia, is putting further strain on global fisheries. Further, the continuing effective management of Australia's own fisheries will depend on the health and sustainability of ecosystems in the wider region.[199] Australia therefore needs to address both threats *to* the fisheries, notably overfishing and climate change, and threats *from* fishing industries and related activities—illegal fishing, organised crime, human trafficking, securitisation, and sovereignty concerns arising from the influence of Indonesia and China. These issues all have a known nexus with violent conflict.

Over 500 million people in developing countries depend on fisheries, either directly or indirectly, for their livelihoods. Fish and fish products are some of the most traded food commodities globally. They are a significant source of employment, household income and wealth creation in coastal communities, and of foreign currency earnings.[200] Fish is also a vital source of food for more than half the world's population—but one that is significantly impacted by rising sea levels,[201] warming temperatures, pollution and overfishing.

The Pacific region is especially rich in marine resources—and especially weak in capacity to protect them.[202] The tuna in the Western and Central Pacific Ocean are the largest and most valuable in the world, yet Pacific island nations have not been able to maximise this natural resource for economic development, and are now confronted with the depletion of stocks.[203] The region still accounts for around 15% of the total amount of legal marine capture globally, but rising local demand, the impacts of climate change and growing export markets are placing considerable strain on its marine resources.[204] These factors impact not only on fish as a commodity but also on its availability for domestic consumption.

In developing countries, including in the Pacific, domestic fish consumption tends to be based on locally sourced and seasonally available products. By 2030, the projected per capita fish consumption in East Asia and the Pacific is projected to be 23.8 kilograms per person per year—a decrease from the 2010 amount of 27.1 kilograms per person per year for the region.[205] Considering the high protein and other nutritional value of fish,[206] this estimate suggests that the depletion of regional fisheries may impact on human health and nutrition, and it will certainly affect local livelihoods.

Livelihoods dependent on fisheries are undoubtedly being affected by climate change. East Asia has seen some of the largest declines due to sea warming, with 15% to 35% reductions in productivity of fisheries—meaning 15% to 35% less fish available for food and employment in a region that is simultaneously experiencing some of the fastest population growth in the world.[207] In the Pacific specifically, rising sea temperatures and winds are expected to push major tuna stocks westwards, causing economic problems.[208] At the same time, inland and freshwater fisheries are being compromised by rising salinity, pollution, unsustainable fishing practices, and natural disasters. The poor are most affected when local supplies are disrupted because they often cannot afford to buy food and water from other sources.[209]

The threats that climate change poses to regional fisheries are compounded by the impact of overfishing. Pacific island governments are often blamed for depletion of tuna resources within their Exclusive Economic Zones (EEZ).[210] It must be noted, however, that resource depletion and the lack of tuna-based economic development in the Western and Central Pacific Ocean have not, as is commonly assumed, been entirely due to Pacific island government mismanagement or corruption. Rather, the problem lies in the political economy of modern distant-water fishing operations within the structure of an increasingly globalised production system, and the degree of sovereignty—and thus control—that states have over fisheries.[211] In short, Pacific island governments have struggled to maintain regulatory control over their tuna resources, while the more powerful member countries of the Western and Central Pacific Fisheries Commission have been able to advance their own national economic agendas rather than ensuring resource sustainability or economic development in Pacific island countries.[212] Although the commission has been tasked with addressing overfishing and low economic rates of return to Pacific island countries, its regional decision-making structure and the commercial interests of powerful foreign fleets have eroded Pacific island countries' control over their own tuna resources.[213]

Foreign interests and influence

Foreign interests and influence exacerbate the problem of overfishing in the Pacific region. For example, Japan and other East Asian countries have been known to advance their own economic interests by opposing proposals of Pacific island countries in the Western and Central Pacific Fisheries Commission, such as a critical proposal to reduce the catches of bigeye and yellowfin tuna, the two most threatened species in the region.[214] The negotiating power of Pacific island governments is relatively weak, and they tend to have meagre funding to attend the negotiating sessions of the commission. Meanwhile, the richer distant-water nations have been able to finance large, effective teams of negotiators, and countries such as Japan have been known to fund the participation of delegates from Pacific island countries with which they have solid bilateral fishing access agreements, in order to strengthen their bargaining position.[215]

There is a further foreign power dimension to the overfishing and sovereignty issues in the Pacific. Micronesian countries are currently seeing an increase in the number of Vietnamese 'blue boats' illegally fishing in their EEZs. Blue boats are a significantly different threat from the vessels traditionally used by operators perpetrating fisheries crimes, which are typically large multinational companies who pay fees, transmit location information and, if caught, pay fines. Blue boats are small-scale operations, do not pay fees or transmit location information, and are more ruthless in fishing for sensitive marine life inshore.[216] The scale of the problem is increasing. For example, in the first half of 2015 alone, Palau seized 15 such boats, which were carrying over 25 metric tonnes of poached marine life, including lobsters, sharks and fins, sea cucumbers and reef fish.[217]

Indonesia and China are beginning to crack down on blue boats, often in violent or otherwise menacing ways. Indonesia is taking an increasingly hard line on illegal, unreported and unregulated fishing. This uncompromising position on Indonesia's territorial and resource sovereignty has been very popular with the Indonesian public. However, it may be exacerbating geopolitical tensions. In April 2019 an Indonesian naval vessel was involved in a ramming incident with a Vietnamese fisheries surveillance vessel. This incident highlights the risks of escalation in competition over fisheries in the South China Sea—especially as the most provocative actions by foreign fishing fleets in Indonesia's EEZ have involved Chinese maritime militia.[218] The wider significance of these incidents lies not in the bilateral relationship

between Indonesia and Vietnam, or Indonesia and China, but rather in the broader implications for changing rules of engagement between military and paramilitary vessels in the Indo-Pacific.[219]

Crime and punishment

The rules of engagement are also changing in relation to fisheries crimes. Until quite recently, many jurisdictions' legislative, institutional, administrative, policy and budgetary arrangements have been geared towards treating transgressions in the fisheries sector as a fisheries management problem only, rather than as a broad criminal concern throughout the value chain. This has resulted in relatively lenient administrative sanctions and in largely ineffective identification of fisheries crime and a severe lack of criminal justice sector cooperation and coordination to address complex global fisheries crime.[220]

Fisheries crime is widespread, usually transnational and largely organised, and can have severe adverse social, economic and environmental impacts both domestically and internationally.[221] In response, the international community, including Australia, is beginning to address fisheries crime as the serious security threat that it is.

The value of fish increases as stocks decrease. Currently 85% of globally commercial stocks are fully exploited, and about a quarter of all stocks are overexploited—and this increasingly attracts transnational organised crime syndicates to the fisheries sector.[222] Fisheries are especially vulnerable to organised criminal activity because of the transnational nature of global industrial fishing, the challenges of law enforcement , and the porous regulatory regimes associated with seaborne activities.[223] Pacific island nations are especially vulnerable. For example, the Republic of the Marshall Islands hosts the world's third-largest ship registry for 'flags of convenience', which are known to facilitate transnational maritime crime, including fisheries crime.[224]

Worryingly, features of fisheries crime, such as the transnational mobility of fishing vessels and the challenges of law enforcement on the high seas, mean that fisheries crimes are often accompanied by other transnational organised crimes, including drug trafficking, human trafficking, migrant smuggling and forms of corruption.[225] Environmental crimes, including fisheries crimes, are among the most serious transnational organised crime

types impacting the Pacific and are very high predicate offences of money laundering in the region.[226]

Between 2010 and 2015, approximately 306,440 tonnes of fish—with an estimated total market value of over US$616 million—were either harvested or transhipped in ways that involved illegal, unreported or unregulated activity in Pacific tuna fisheries.[227] Illegal fishing in the Pacific region also encompasses other activities such as shark-finning and corruption in the inshore bêche-de-mer (sea cucumber) industry, in addition to non-compliance regarding permits, overfishing and quotas.[228] The demand from China, Europe and the United States for coral and aquarium fish has also reportedly been supplied by source countries in the Pacific, and the illegal trade of these marine products brings higher profits than other types of near-shore wildlife harvesting.[229] Needless to say, these illegal activities have severe environmental impacts, and the unsustainable fishing practices they involve ultimately result in considerable losses for individuals, families, communities, and local and regional economies, as well as broader consequences for global food supply and security.[230]

Another criminal and human security issue associated with modern fisheries is that of human trafficking. Human trafficking in the Pacific is known to take place for sexual exploitation purposes or to provide labour for local extractive industries, including fishing. In the Solomon Islands, for example, reports of labour exploitation in foreign commercial fishing vessels have increased in recent years. Similarly, in PNG there have been reports of women from China, Indonesia, the Philippines, Malaysia and Thailand being incentivised to voluntarily enter PNG with fraudulent business or tourist visas and then turned over to traffickers for transport to fisheries and other industries for the purpose of domestic servitude and sex work.[231]

Exploitation of Pacific islanders by distant-water operators licensed to fish within the waters of Pacific countries is also known to be widespread. Deceptive 'manning agents' reportedly recruit poorly educated individuals by giving them inaccurate details regarding pay and conditions and inducing them to sign a contract without proper explanation. These people are further exploited through inequitable contracts, psychological and physical abuse, withholding of wages, holding of passports, and poor living conditions. Fishing vessels may stay at sea for up to two years, transferring their catch to a 'mother ship' during this period, and this limits opportunities for escape or alerting authorities.[232]

International response

Addressing the security issues facing their fisheries is a major priority for Pacific island leaders. The 2019 Kainaki II Declaration, for example, makes explicit the need to 'protect our fisheries resources, and to conserve and restore our marine ecosystems and biodiversity', and calls on Pacific Rim countries to join and commit to action on, among other things, marine pollution and marine debris.[233]

Taking action on overfishing is a matter of urgency as the effects of climate change act as a stress multiplier on vulnerable natural resources. Overfishing makes fish populations more vulnerable to ocean warming (and related effects such as acidification, falling oxygen levels, and habitat loss), while warming hinders the recovery of overfished populations.[234] However, combating overfishing—a wicked problem in itself—is complicated further by the difficulties of law enforcement in the Pacific Ocean.

Combating fisheries crime in the region is another important aspect of protecting this vital natural resource.[235] However, enforcing agreements on high seas requires international cooperation, which is often lacking.[236] In recent years the European Commission has had some success in issuing 'yellow cards' to the Solomon Islands, Tuvalu, PNG and Vanuatu for illegal, unreported and unregulated fishing, and this has galvanised these countries into taking more effective and immediate domestic action to better enforce their own laws and uphold the international agreements they have entered into.[237] Nonetheless, most PICTs and the high seas around them remain vulnerable to fisheries crimes due to the geographical extent of their EEZs and to their limited capability to effectively patrol such vast areas. [238]

PICTs are situated along a maritime corridor used for legitimate trade between major economic markets along the Pacific Rim. Applying regulation and enforcement strategies can be difficult here because of the large number of fishing vessels owned by numerous foreign companies and bearing flags from multiple nations.[239] The prosecution of fisheries crimes is more often than not in the jurisdiction of flag states. Therefore, if foreign vessels are fishing in the waters of Pacific islands, the primary responsibility to investigate them for illegal fishing rests with foreign authorities, thus making it even more difficult for Pacific authorities to collect evidence.[240]

Numerous international agreements, monitoring and compliance frameworks, regulatory reforms and other initiatives are underway to improve surveillance, information sharing, interoperability and enforcement to eliminate illegal, unreported and unregulated fishing.[241] One example of an improvement in the detection of and response to fisheries crime in the Pacific is the United Kingdom government's Project Eyes on the Seas, which addresses monitoring gaps by consolidating numerous data layers from various sources that, when combined, allow vessels to be seen regardless of whether their position is being properly transmitted. Such information is particularly beneficial to resource-poor countries without the capacity to generate and maintain sophisticated monitoring systems, and the Cook Islands, Niue, Samoa and Tonga have all already signed on to the project.[242]

Refocusing ADF involvement in collective action

Threats to and from Pacific fisheries impact on Australia's national security.[243] Therefore our contribution to the collective response to these complex threats should be both substantial and carefully considered.

There is a vital need for improved intelligence gathering and sharing around fisheries crime.[244] This may be an area in which Australia could lead. The ADF is already involved in some regional initiatives for improved surveillance of Pacific fisheries. The Pacific Patrol Boat Program, for example, has been providing patrol boats to 12 Pacific island countries since the late 1980s for maritime surveillance and law enforcement tasks, along with financial, technical, logistics, maintenance, training and other relevant support.[245] The Pacific Class vessels are being replaced (from 2018) by the more capable Guardian Class under the Pacific Maritime Security Program, which supersedes the Pacific Patrol Boat Program. At the same time Australia's investment in providing practical assistance to the region through the Defence Cooperation Program grows.[246] For example, security of regional fisheries is now being bolstered by Australian aerial surveillance.[247]

Australia also contributes—along with the Cook Islands, the Federated States of Micronesia, Kiribati, the Marshall Islands, Nauru, Niue, Palau, Samoa, Solomon Islands, Tokelau, New Zealand and the US—to Operation Kuru Kuru. This is an annual multi-agency and multi-national operation, instigated in 2003, to improve the detection of fisheries crimes and other

transnational crimes in the Pacific Ocean. Significantly, Operation Kuru Kuru aims to enhance economic, environmental and food security throughout the Pacific region through the sustainable management and harvest of fish stocks.[248] As such, it is a de facto mechanism for environmental peacebuilding because it creates opportunities for cooperation through good environmental governance.

As Australia continues to navigate through the numerous international initiatives and frameworks addressing various aspects of this significant and complex problem, the lens of environmental peacebuilding shows that the prevention of instability and violent conflict may lie in the good governance of natural resources.

Part 6: Disasters and Displacement in Fiji

In addition to supporting stabilisation through the good governance of extractive industries, environmental peacebuilding may be an appropriate lens through which to view the nexus of climate change, natural disasters and human displacement in the region. These factors, when combined, pose several security challenges that are of concern to Australia.

Complex and existential threats

The effects of climate change pose an existential threat to the Pacific islands. Given the loss of land, undermined economies, and threatened sustainability, an influx of climate refugees from affected islands has the potential to become a humanitarian disaster that could destabilise the region.[249] In 2004, a cyclone left one fifth of the population of Niue homeless. In recent years the Cook Islands have experienced five cyclones in one month when previously they were uncommon, while PNG has been experiencing more malaria and dengue fever outbreaks.[250] At the same time, rising sea levels contribute to coastal erosion and flooding, saltwater intrusion, and damage to infrastructure and places of belonging.[251] The cumulative effect of these impacts of climate change is the loss of homes and livelihoods and the displacement of populations.

In Fiji, which is exposed to substantial climate risks (including higher sea levels, storm surges, flooding, and coastal erosion) the probability of disruptive displacement due to the effects of climate change is so high that planned relocation is considered an adaptation strategy—and the country prepares accordingly.[252] Planned or otherwise, displacement is complicated by longstanding and ongoing ethnic tensions and competition over land ownership and access to natural resources. Many Indo-Fijians, who rely on

land leased by indigenous Fijians, have lost this land following the expiration of 30-year leaseholds allowed under the Agricultural Landlord and Tenant Act of 1977.[253] Meanwhile, indigenous Fijians now fear that their land will be expropriated by the government for development.[254] Many indigenous Fijians view land as their source of life and perceive Indo-Fijians to treat land purely as an investment, and this compounds the ethnic tensions.[255] At the same time, the expiry of land leases on farms has led to a mass exodus of farmers to cities, where many now live in informal settlements.[256]

The government has been known to complicate things further. Politicians, for instance, have used these land issues to create mistrust between ethnic groups.[257] Indigenous Fijians have expressed disquiet about what they feel to be the government's anti-Fijian policies (for example, the abolition of the indigenous Fijian Great Council of Chiefs), which arguably damage inter-ethnic relations and fuel ethno-nationalism.[258] Women, especially those from ethnic minorities or rural areas, continue to be marginalised. Many struggle to participate in decision-making beyond their families and church groups.[259]

In the context of Fiji's inter-ethnic tensions, displacement due to increasing coastal erosion, saltwater intrusion, flooding, devastating cyclones or other effects of climate change can force conflicting groups into closer contact or competition over scarce resources. This may exacerbate animosities to the point of violence. Already, entire villages have been relocated due to environmental and climatic factors, so the emotional and financial costs are increasingly well-documented. Leaving ancestral homelands is sad and stressful for many, while the government and international agencies need to provide the infrastructure to support life and livelihoods in the new locations.[260] For some communities, relocation is not possible without express permission and blessings from their Chief.[261] Community leadership is key to successful relocation, with traditional leaders playing a crucial role in community governance and decision-making. Customary land and resources are also important enablers.[262]

Displacement and other effects of climate change disproportionately impact on women and girls. Loss of arable land and availability of, or access to, freshwater resources predominantly affects women's livelihoods and daily tasks, and women and children are 14 times more likely than men to die or be injured during a disaster.[263] Because of this, it is vital to include women's perspectives, experiences and unique knowledge in any disaster relief and environmental peacebuilding efforts.

As UN under-secretary-general and executive director of UN Women Phumzile Mlambo-Ngcuka has pointed out, women offer valuable insights into and solutions for better managing the climate and its risks because they tend to be early adopters of many new agricultural techniques, first responders in crises, entrepreneurs of green energy and decision-makers at home.[264] In the Pacific, some local initiatives are already showing successes. For example, the wife of the prime minister of Tuvalu has been taking the lead on training and educating local women on crops and seeds to foster food security and has helped them establish home gardens as an alternative to working in the fields.[265]

Climate change as a collective action problem

The flipside of these consequences of climate change is that part of the response lies in collective action, which has a healing effect on ethnic tensions. In Fiji, despite the existing ethnic tensions and potential for climate-induced displacement exacerbating conflict, some recent natural disasters saw citizens of all ethnicities contributing actively to the rehabilitation of victims. A recent example is the floods in the western and northern divisions, where victims were primarily iTaukei and Indo-Fijian.[266] Similarly, cane farming (which is particularly vulnerable to natural disasters and changing rainfall patterns) has brought different ethnic groups together, which have formed cooperatives in their own rural localities to address their mutual needs.[267]

Fiji has a longstanding tradition of accommodating entire populations who have been forced to relocate due to environmental degradation. The Banaban people were settled in Fiji in the 1940s after their homeland, Ocean Island (now part of Kiribati), was rendered uninhabitable by British-led phosphate mining.[268] More recently the Kiribati government has purchased 5,500 acres of land in Fiji for the purpose of resettling populations displaced by climate change, while Fiji has declared it would accept people from Kiribati and Tuvalu relocating due to environmental factors.[269]

The government of Fiji has been aware of, and actively addressing, the issues of climate-induced displacement for many years. To date it has identified 830 vulnerable communities requiring relocation due to risks from climate-related impacts, with 48 of these in urgent need of relocation.[270] The government released in 2018 its Planned Relocation Guidelines for communities experiencing the adverse impacts of climate change.

These guidelines are intended to enable climate-vulnerable villages, communities and households to play an integral role in adaptation and relocation decision-making and planning, although it is clear that planned relocation will be undertaken only as a last resort and when other adaptation options are exhausted.[271] At the same time, the Fijian government has developed a Green Growth Framework and is positioning itself on the global stage as a leader in multilateral environmental diplomacy, with 'green growth' firmly part of Fiji's foreign policy strategy.[272]

Collective response beyond Fiji

At the global level, however, there is still a lack of protection and support for people displaced due to the effects of climate change. This is despite the fact that in the past 10 years nearly 25 million people have already been displaced, and despite the World Bank's estimate that more than 140 million will be displaced by 2050—especially from the most vulnerable regions of the globe.[273] Currently, however, people displaced across national borders as a consequence of climate events cannot be defined as refugees under the 1951 Refugee Convention.[274]

It has been the leaders of Pacific island nations who have spearheaded international efforts to develop a legal regime to give protection to people displaced by climate change, which they argue is a global, not just regional, problem.[275] In December 2018, the UN formally passed the Global Compact for Migration, which contains a section on assisting those displaced by climate change related issues. It is the first major migration policy to refer to climate change, and it is arguably the first international step towards recognising climate refugees as an emerging global problem.[276]

Closer to home, New Zealand has been positioning itself as a leader in tackling the climate crisis and helping those in its region who are worst affected by climate change. In 2017, New Zealand created a new humanitarian visa for those displaced by climate change in the Pacific. However, humanitarian visas are not what Pacific islanders want.[277] Instead, they have regularly expressed their desire for self-determination and a collective solution rather than an individualised visa approach. Thus, the New Zealand government quickly changed its approach— abandoning the new visa in 2018—to align with Pacific island countries' desires instead of an outsider perception of their needs.[278]

Australian response

Australia, on the other hand, focuses largely on disaster relief rather than climate change adaptation in the region. In 2016 the ADF responded to a request from the Fijian government for disaster relief following Tropical Cyclone Winston, the worst cyclone to hit Fiji in recorded history. More than 1,000 Defence personnel deployed on Operation Fiji Assist, and over 250 tonnes of humanitarian supplies were delivered.[279] Since 2016 the ADF has supported disaster relief missions in Fiji, Tonga, PNG, Indonesia and New Zealand, with each mission involving thousands of troops at a time— sometimes more than Australia deployed at the height of our involvement in Afghanistan.[280]

Humanitarian and other disaster relief missions are an important part of advancing Australia's strategic interest in regional stability, as well as fulfilling our responsibility as a regional power and good neighbour. However, there is more that Australia could, and arguably should, do to support Pacific island nations in strengthening resilience to the impacts of climate change. Fiji has repeatedly asked Australia to act on reducing greenhouse gas emissions by way of mitigating climate change. In 2019, for example, Fijian Prime Minister Frank Bainimarama urged Prime Minister Scott Morrison to shift Australia away from fossil fuels, arguing that no industry should take priority over the welfare of Pacific peoples and others affected by climate change.[281]

Seeing the situation in Fiji through an environmental peacebuilding lens may allow Australian decision-makers, and the ADF in particular, to better respond to these challenges through collective action.

Migration with dignity

Environmental peacebuilding is all about understanding context, enabling culturally appropriate processes, and supporting the development of local solutions to local problems. Listening to Pacific voices and concerns about climate change, disasters and displacement need not be difficult. Much thinking and decision-making has already gone into establishing what Pacific island leaders would like to see happen. For example, the 2008 Niue Declaration on Climate Change recognises the importance of preserving Pacific society and culture and complying with peoples' wish to live in their home countries while adapting to the impacts of climate change.[282]

If relocation must happen, it must be migration with dignity. As former President of Kiribati Anote Tong has long asserted, migration is a climate change adaptation strategy and anyone wishing to relocate should be able to do so without becoming a second-class citizen in another country.[283] He has also regularly called for countries to open up pathways for migration so that people can choose when they move instead of being treated as refugees.[284] In accepting the principle of migration with dignity, however, it is equally important to understand that when Pacific island leaders call for greater protections of people displaced internationally by the effects of climate change, they are not signalling that their populations want to move[285]—people the world over want to be able to stay in their homelands as long as possible, and the purpose of environmental peacebuilding should be to enable this in the first instance.

Intersection with environmental peacebuilding

The principles of environmental peacebuilding align well with those of Fiji's Planned Relocation Guidelines. These emphasise the importance of community consent, the conservation of traditions and cultural identities, and community involvement and engagement in decision-making. They also emphasise the importance of site selection, livelihood restoration and diversification, and the establishment of climate-resilient resettlement sites.[286] In other words, Fiji's proposed approach to dealing with displacement is de facto an environmental peacebuilding process.

Furthermore, the experience of Fijian ethnic minorities working together, despite historic tensions, during disaster relief efforts and on the management of shared natural resources illustrates the conflict-resolution potential of environmental peacebuilding. Such insights form the basis of environmental peacebuilding and should be harnessed by any international intervention. The purpose of applying an environmental peacebuilding lens is, after all, not only to identify potential flashpoints for conflict but also to learn lessons from successes of cooperation and peace.

Part 7: Recommendations

Reassess the potential ADF role in Bougainville through an environmental peacebuilding lens

Applying an environmental peacebuilding lens to the situation in Bougainville may give the Australian Army a novel approach for planning assistance and interventions that may prevent or mitigate violent conflict related to the exploitation of natural resources.

Australia certainly has a vested interest in—and arguably responsibility for—supporting the development of peace and stability in Bougainville as it moves toward independence from PNG, and ensuring that Bougainville does not become a source of regional instability again.[287] However, this is no easy task. An independent Bougainville puts Australia in a tricky position considering our close relationship with PNG; and rising geopolitical tensions in the region give Australia less room to manoeuvre than it once had.[288]

China, for example, is increasingly asserting its interests in the region and courts Pacific territories, including Bougainville.[289] A Chinese delegation is rumoured to have offered substantial funds in late 2018 to help finance a transition to Bougainville's independence, along with offers to invest in mining, tourism, agriculture and a new port.[290] The Pacific islands have also long been the subject of intense competition between China and Taiwan for diplomatic recognition, and an independent Bougainville would likely be courted by both.[291] At the same time, Indonesia is watching the Bougainville independence process with concern that it could create a regional precedent for West Papua, where significant elements of the population are also agitating for a referendum and eventual independence.[292]

In the context of these growing geostrategic rivalries, Australia will need to step up its engagement and consider further policy approaches to Bougainville if it wishes to remain a trusted peace and security broker in Melanesia.[293] Environmental peacebuilding may just be the policy approach we need.

How environmental peacebuilding could help apply environmental peacebuilding principles to future ADF operations

Although not all the causes of the violence and hostilities in Bougainville are environmental, the key to long-term stability and prosperity is strengthening environmental governance and ensuring the equitable distribution of benefits from natural resources, especially copper. This may not quell all ethnic and historical tensions but is likely to provide an impetus for peace and cooperation. This is the basic tenet of environmental peacebuilding.

The environmental peacebuilding principles of procedural justice, legitimising disempowered voices, and developing locally appropriate solutions to local problems also align with the Pacific Way, which was one of the factors of success in the peacebuilding process of the late 1990s and early 2000s. Furthermore, the 2004 Constitution of the Autonomous Region of Bougainville places great emphasis on environmental stewardship, sustainable development, and the governance of natural resources for the benefit not just of the current generation but of future ones too. Implicit in this is a receptivity to environmental justice, and this may be an appropriate starting point for or central axis of environmental peacebuilding efforts going forward.

What, then, could environmental peacebuilding mean for Bougainville? First and foremost, it could be a process for establishing equitable governance of copper and other natural resources. There are some lessons to be learned in this regard from other parts of the world that have experienced conflict related to extractive industries.

Prioritise equitable governance of Bougainville's copper resources

The first lesson about extractive industries and conflict is that extractive companies have limited influence over peace and conflict dynamics— they are not equipped to be the main peacebuilding actor.[294] In any case, resource investment in fragile and conflict-affected settings is unlikely to be 'conflict-neutral', and large-scale resource development in fragile or conflict-affected situations will have an impact one way or another. This places

special responsibilities on the actors—such as Australia—that support extractives-led development in these contexts.[295]

Unfortunately there is little in the way of an evidence base or decision-making framework to enable stakeholders to assess conflict risk against peace-positive potential, which makes it difficult to reach informed and inclusive decisions on how to proceed in a given context and on what constitutes responsibility beyond the 'do no harm' principle.[296] What is clear is that strong and effective institutions are critical—even though they take a long time to emerge, especially if governance is weak or absent. In light of this, governments of fragile but resource-rich countries are generally advised to slow down or postpone resource development, while working with development partners to build institutional capacity.[297]

Reopening the Panguna mine as soon as possible remains an attractive proposition for the ABG, despite its weak institutions and lack of capacity, because the mine would be a major source of revenue for Bougainville and would deliver benefits to its population.[298] Under President Momis, the ABG has given mixed signals as to its position on mining. It initially supported a moratorium on mining at Panguna to prevent reigniting old conflicts, but recently appears to favour mining across the island as a means of generating income and underwriting independence.[299] The mine's copper reserves are estimated to be 5.3 million metric tonnes,[300] worth billions of US dollars at today's prices.[301] The allure of these billions poses a risk for environmental peacebuilding, because the ABG may be tempted to pursue mining revenues before strong governance arrangements are established. Already the ABG has attempted to allocate 'near monopoly' rights over all mining and exploration on Bougainville to one company:[302] the little-known Australian company Caballus Mining.[303] Any Australian or other international support extended to the ABG that takes an environmental peacebuilding lens to the situation should provide impartial advice on managing overtures from international mining companies, especially as competition over mining rights on Bougainville is likely to continue to escalate.[304]

Build equitable governance structures across the resources sector

Building capacity around the governance of natural resources is going to be critical not just for the potential reopening of the Panguna copper mine. There is talk of developing other smaller copper mining projects,[305] and Bougainville also richly endowed with silver and gold.[306] Current gold reserves are estimated to be 19.3 million ounces,[307] and small-scale gold mining has become an important source of income for Bougainville.[308]

Other natural resources that provide revenue streams for Bougainville include fisheries and cocoa production. By one estimate, 30% of PNG's fish catch comes from Bougainville waters, and Bougainville has also been an exporter of high-value marine products such as bêche-de-mer.[309] Bougainville's large cocoa plantations are increasingly supplying domestic and international chocolate makers.[310] Indeed, prior to the outbreak of conflict in 1989, cocoa production was the backbone of a thriving rural economy and provided critical income for thousands of Bougainvilleans. Now, international NGOs and foreign aid donors are helping to revive an interest in cocoa farming by restoring skills, tackling parasites that have ravaged crops, and supporting farmers' groups.[311]

In short, there are numerous opportunities to manage Bougainville's natural resource wealth for peace, prosperity and sustainable development. Non-mineral resources could certainly make a significant contribution to economic self-reliance over time, but good management of them will be crucial if Bougainville is to become a viable independent nation.[312]

Supporting the development of good management systems and processes around Bougainville's natural resources will be an important part of any future environmental peacebuilding efforts, as will applying the lessons learned from the experiences of the TMG and PMG peacekeeping missions. These interventions created a template whereby Australia and New Zealand gather neighbouring Pacific forces to provide logistical and operational support for regional peacebuilding efforts that respect traditional Melanesian culture (kastom).[313] Focusing on cultural sensitivity and local solutions to local problems proved effective in Bougainville in the early 2000s—as well as enabling the success of later missions to Timor-Leste and the Solomon Islands[314]—and is likely to be an important aspect of future environmental peacebuilding efforts too.

Prioritise local empowerment

Local empowerment was an important component of the TMG and PMG missions, and it is a principle of environmental peacebuilding. The peacekeeping process of the late 1990s and early 2000s was notable for its high degree of local ownership and highlighted the importance of extending ownership beyond the political and military leaders of the day.[315] Ultimately, this allowed trustful relationships to emerge over time.[316]

An important lesson from the TMG and PMG is the importance of respecting and enabling locally appropriate reconciliation rituals. Beginning any future intervention with a gesture of reconciliation—*sori bisnis*, or to break bows and arrows—may help position the Australian Army as a trusted partner, overturning the prevailing perception that Australia continues to work with PNG to deny Bougainville independence.[317] At the same time, it will be important to not set any overt agenda for what the environmental peacebuilding process should achieve. Lack of an agenda was another successful tactic of the TMG, which instead focused on facilitating a fair and transparent process.[318] Similarly, letting go of inappropriate Western cultural assumptions and approaches may serve future Australian environmental peacebuilders well. The local cultural context should always be taken into account when planning an operation.[319] Understanding differences between the civil and military elements of a peacekeeping mission is equally important and allowed the TMG and PMG to build on their different strengths and to better support and communicate with Bougainville's villagers.[320]

Ensure a central role for women in future peacebuilding

As a lens, environmental peacebuilding allows for the identification and recognition of the winners and losers of natural resources—and it is often women who lose out. The establishment of the Panguna copper mine was especially detrimental to the position of women in Bougainvillean society. The operating company registered various traditional landowners of the Nasioi language group, but excluded women despite their position as traditional custodians of the land in a matrilineal system.[321] It is not surprising, therefore, that women were active in the anti-mine protests, pulling out survey markers and standing in front of bulldozers.[322]

The emphasis of the TMG and PMG on local customs enabled women to argue for their status as 'mothers of the land' to be recognised in state decision-making structures, and to contribute to peacebuilding as grassroots mediators during the conflict years.[323] Engaging women in the peacebuilding process is an important consideration for environmental peacebuilding, because it empowers local stakeholders who may have previously been excluded from decision-making.

The centrality of women to community-level peacemaking in Bougainville also accords with the substance of the UN Security Council's landmark resolution 1325 on women, peace and security, which states that women and girls are uniquely impacted by conflict and demands that more

attention be given to their potential roles as partners in peacekeeping and peacebuilding efforts in the future.[324] Any future Australian intervention or other support to Bougainville would do well to use the second National Action Plan on Women, Peace and Security as a framework for developing a respectful, inclusive, and empowering partnership with the women of Bougainville.[325]

Today, the role and welfare of women in traditional and modern Bougainville society is recognised and encouraged under the 2004 constitution.[326] Women continue to be active in the pro-independence movement and vocal in their views—both for and against[327]—the reopening of the Panguna copper mine.[328]

Nevertheless, challenges remain and will need to be considered in any future peacebuilding efforts. The narrative of women as peace brokers has also cemented a powerful sense that peace and order are linked with women's everyday obedience to the mothering ideal. Where women's economic and political ambitions overstep the feminised norms of gender appropriateness, women have been confronted with masculine censure, political obstruction and, in some cases, physical violence.[329] Frustrations have grown about the limited opportunities Bougainvillean women have to generate income beyond the feminised arenas of care and welfare occupations. For example, many women are excluded from participating in the lucrative cocoa industry because of the longstanding view that cocoa production is a 'man's world'.[330]

Limits of wider application of lessons from Bougainville

The TMG and PMG were successful largely because the protagonists and planners considered the Pacific Way to be the most important variable, rather than any particular peacekeeping theory, and they listened to and empowered local voices, especially those of women. It may not be possible to replicate or generalise for other contexts the specific factors that contributed to their success, but that success does suggest that thorough analysis and careful, coordinated implementation pay high dividends.[331] This lesson is applicable to preparing for future environmental peacebuilding processes.

Examine past conflicts and current contexts through an environmental peacebuilding lens

There is growing precedent for using environmental peacebuilding to draw out lessons from the past that may be applicable in the near future. Other defence forces around the world, such as those of Sweden, are already beginning to turn to environmental cooperation as a potential peacebuilding tool to address resource-driven conflicts and beyond, and environmental peacebuilding is now part of an emerging global research agenda and a priority area for several international organisations.[332]

In the short term, environmental peacebuilding could be used as a lens for reassessing past conflicts where the Australian Army intervened, for the purpose of drawing out insights for likely future operations. For instance, the crisis in the Solomon Islands in the late 1990s and early 2000s has been largely attributed to ethnic tensions and failure of governance—but what impact did the 1998 El Niño drought have on decisions made by Guadalcanal landowners to seize land used by Malaitan settlers? And to what extent did the loss of logging revenues trigger the crisis, as Malaysian corporations reduced investment in Solomon Islands forestry to weather the Asian financial crisis?[333]

At the same time, Australia would do well to invest more in research with PICTs to increase our regional expertise, build relationships, and support knowledge transfer. Considering how vulnerable this region is to the effects of climate change, it is surprising that so little attention has been focused on it. Policymakers are drawing upon research and other evidence that ignores or underestimates important factors related to the climate change–conflict nexus. These include cultural and spiritual aspects, indigenous knowledge, and indigenous ways of adapting to climate change. To fill gaps in knowledge, we need more granular ethnographic research to explore the complexity of local contexts in Oceania, with particular attention paid to non-Western, non-anthropocentric concepts.[334]

Listen to Pacific voices

Listening to Pacific voices will be crucial to the success of any future peacebuilding mission, disaster relief mission, or other climate change adaptation strategy. In terms of diplomacy and foreign aid, the Pacific Step Up policy could be strengthened by more engagement with local communities to take into consideration local experiences, knowledge and needs rather than just Australia's priorities.[335]

Listening to local voices will allow Australia to pinpoint where cooperation with small island nations can best address climate change-related insecurities.[336] The experience of the New Zealand and Australian-led peacekeeping missions in Bougainville in the early 2000s shows that taking this approach—engaging with local and marginalised voices at all levels of governance—can build trust and enhance security. In particular, adopting the Pacific Way in conducting these joint military and civilian missions was a factor in their success. The principles of the Pacific Way that may be useful to inform future planning are:

- process is just as important as outcomes
- solutions must be 'owned' by the participants, not imposed by the peacekeepers
- approaches to conflict resolution must take into account the cultural needs and cultural prejudices of the participants, not of those offering their services
- the peacekeepers must set an example in their conduct and in their own processes.[337]

Renewed attention needs to be paid to mechanisms for mitigating and resolving natural resource disputes. One particularly useful tool is mediation, which aligns with the principles of the Pacific Way in focusing on process rather than outcome. Mediation can be defined as a non-adversarial and collaborative process through which an impartial third party helps conflicting parties to reach a resolution through interest-based negotiations. Mediators addressing natural resource conflicts in a peace process should keep in mind that their objective is not necessarily to resolve the issue during the negotiation, but rather to create an institutional framework and momentum that can deal with natural resource issues at a later time.[338]

Women can play crucial roles as facilitators, mediators, peacemakers and advocates for change in conflict-affected societies, especially in the Pacific region, where many communities traditionally place significant decision-making responsibilities on women. The significance of women in peace and conflict is recognised by the United Nations,[339] but women are too often excluded from formal peace negotiations. From their earliest stages, peacekeeping, stabilisation and peacebuilding operations should engage women in meaningful partnerships and help host countries to redress conditions of gender inequality where they exist.[340]

Embed environmental peacebuilding capability in the ADF

In the medium term, several frameworks or mechanisms already exist for building environmental peacebuilding capability within the ADF. For a start, the increasing international interest in joint peacebuilding means there are now important funding opportunities channelled through bilateral agencies or multilateral funds such as the UN Peacebuilding Fund; the UN-EU Partnership on Natural Resources, Conflict and Peacebuilding; and the United Nations Environment Programme's Environmental Cooperation for Peacebuilding Programme.[341]

Adopting some of the recommendations of the 2018 Senate Inquiry into Implications of Climate Change for Australia's National Security will also provide opportunities for developing environmental peacebuilding capability into the medium term. The committee recommends, among other things, that national security agencies increase their climate security knowledge and capability by encouraging the participation of staff in available courses.[342] The committee also recommends that a white paper or similar planning document be developed to ensure the national security aspects of climate change (including extreme weather events, regional instability, and broader threats to the economy, infrastructure, and community health and well-being) are being considered from a whole-of-government perspective.[343] The committee emphasises that any whole-of-government approach must be accompanied by the ongoing cooperation of communities, academia, the private sector and all levels of government, as well as Australia's regional and international partners.[344] For example, Defence could invest in an environmental security risk mapping exercise similar to a recent

French-Australian one on the Indian and Southern Oceans.[345] Furthermore, multi-agency planning and coordination of peacekeeping and stabilisation operations must include peacebuilding and capacity-building, both of which should, where appropriate, begin at the earliest stages of peacekeeping.[346]

Strengthen Defence capacity to respond to natural disasters

Defence should become more agile and better prepared for the likelihood of concurrent events—such as a combination of extreme weather events, humanitarian assistance, and military missions—requiring simultaneous responses. Simultaneous disasters could create concurrency pressures and sustainment cost issues from as early as the middle of the next decade, or earlier if climate security threats accelerate. The ADF may need to respond to these pressures by restructuring to better recognise non-warfighting responsibilities.[347] Disaster preparedness and approaches to addressing climate change induced displacement could take into account the recommendations from the toolkit developed by the Nansen Initiative on Disaster-Induced Cross-Border Displacement[348] and the Platform on Disaster Displacement.[349]

At the same time, the ADF should consider how to minimise the environmental impacts of peacekeeping missions. There are many international examples of how this can be done, as well as frameworks for and best practice guidance on good environmental management and stewardship during peacekeeping and peacebuilding interventions. The 2018 UN document *Greening Peacekeeping: The Environmental Impact of UN Peace Operations* provides many insights into this, and examples of best practice.[350]

Conclusion

Environmental peacebuilding is a relatively new, broad and imprecise concept. As such, it has multiple definitions. For the purposes of the ADF, however, it can be best understood both as a lens through which to view nascent conflicts and as a process for stabilising those conflicts. As an analytical lens, environmental peacebuilding reveals the potential of good governance to prevent, mitigate, or resolve conflicts over natural resources.[351] The focus of this lens must be on inequitable outcomes and on identifying opportunities for environmental justice. As a process, environmental peacebuilding is about shifting power dynamics to enable cooperation over natural resources for the purpose of creating collaborative interdependencies fostering peace and stability. Ultimately, environmental peacebuilding is all about understanding context, enabling culturally appropriate processes, and supporting the development of local solutions to local problems.

There are many challenges to the stability of Pacific island states arising from the numerous environmental and climate change-related threats facing the region. Australia will likely be compelled to play a greater role in assisting our neighbours in preparing for, or mitigating the impacts of, these threats. In preparing to do so, it may be instructive to use the novel lens of environmental peacebuilding through which to view the security issues facing the Pacific region.

The three examples explored in this monograph serve to illustrate the depth and breadth of environmental security challenges in the region. First, Bougainville may again descend into conflict if the governance of its vast copper resources is not resolved. Second, the effects on fisheries of climate change and the related issue of illegal, unreported or unregulated fishing are straining the livelihoods, capability, and food security of the

PICTs. Third, the increasing frequency and intensity of natural disasters may exacerbate ethnic and other socio-political tensions at a time when climate-induced displacement is already challenging regional capacity. As the ADF takes greater interest in addressing these and numerous other environmental security threats not discussed here, the concept of environmental peacebuilding provides a novel approach to understanding the complexity of these wicked problems, and offers some avenues for strategic planning in the short, medium and long term for responses based on the process of environmental peacebuilding.

For the long term, the ADF should invest now in the recruitment, training, and education of a future force with strong environmental peacebuilding capabilities. This includes mediation skills, climate change adaptation, humanitarian assistance and disaster relief and, of course, a solid understanding of the complexities and interdependencies of the collective action problems of environmental security. These capabilities will enable the ADF to make constructive, enduring contributions toward the stability, peace and prosperity of the south-west Pacific and beyond as the effects of climate change, resource scarcity and environmental degradation threaten regional and national security.

Environmental peacebuilding provides an important lens through which the ADF can seek to inform its planning and conduct of operations. This will be particularly important for humanitarian, disaster relief, peace and stabilisation operations in the Pacific. This is not to say that Defence personnel need to become experts in environmental issues per se. However, ADF planning and operations should be conducted in a manner cognisant of environmental factors. Resource scarcity—caused by pollution, overexploitation and climate change effects—can drive and shape conflict. More positively, the ADF should understand how measures that address environmental concerns may underpin more stable peace.

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About the Authors

Paula Hanasz, PhD

Paula Hanasz is a specialist in non-traditional security threats. She holds a PhD on water conflicts and cooperation from the Australian National University, Crawford School of Public Policy. She also holds a MScEcon Intelligence Studies from Aberystwyth University. Paula has consulted for many years to the Australian government on national security and defence matters. In 2008-2010, Paula conducted PSYOPS for the International Security Assistance Force in Afghanistan.

Scott Brady

Scott Brady is a consultant, researcher, and business owner with over 20 years of international experience in dealing with complex issues in defence and national security. His consulting experience includes work for the Australian and US Governments. Prior to becoming a consultant, Scott was an officer in the Australian Regular Army. He is a graduate of Monash University, the University of New South Wales and the Royal Military College of Australia.