Towards Consolidating the Pacific Maritime Security Program for the Future: A Critical Analysis

By Nicholas Stilp

Nicholas Stilp attended the Sea Power Centre-Australia as part of the Australian National Internships program.

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Executive Summary

The Pacific Maritime Security Program is an excellent piece of Australian policy-making, and a positive example of Australia's regional leadership. The program has considerable value for Australia and the Pacific region, and Australia should ensure its consolidation and continuation. However, there are difficult challenges to overcome. Without effective recognition and adaptation to meet these challenges, the program will not be able to achieve its goals.

This report mobilises academic literature and policy documents to critically analyse the program's challenges, both current and future, and its ability to withstand them. Overall, this report finds that climate change, and economic and operational limitations represent significant threats to the program's future.

Specifically, this report finds that the program ought to ensure it provides adequate safeguards against climate change-related challenges, such as consolidating Illegal, unreported and unregulated fishing and humanitarian assistance and disaster relief capacities, as well as ensuring economic sustainability and operational self-sufficiency. In reference to these challenges, this report concludes by providing several key recommendations to consolidate the program.

The Pacific Maritime Security Program promotes the security and stability of both Australia and the Pacific region. As such, Australia should ensure its consolidation and continuation. To do so, however, the program must recognise and confront the several challenges it faces.

Introduction

The Pacific Maritime Security Program (PMSP) is a fine example of Australian leadership in the Pacific region. The program has facilitated significant achievements for both Australia and the program's Pacific partners. For the Pacific, the PMSP provides sovereign assets to secure the region's maritime domain, and provides the region's nations with a mechanism by which they can determine their own maritime sovereignty and security. For Australia, the PMSP is a pillar of regional leadership. It provides Australia with greater certainty about Pacific stability. In summary, the PMSP is of considerable value to Australia and its Pacific partners.

Nevertheless, challenges for the program persist. Demands for the program to manage threats from climate change, as well as for the program to ensure economic sustainability and operational self-sufficiency, are of particular concern. Without adaptation, the PMSP will likely not be able to achieve its goals. However, the PMSP ought to perceive these challenges not as fatal flaws, but rather as opportunities. Successful policy- and decision-making will ensure the program consolidates and prospers. Ultimately, success will depend upon the program's willingness to recognise and confront its challenges.

To demonstrate this, I will first explain the contextual foundations of the PMSP, which are found within its predecessor, the Pacific Patrol Boat Program (PPBP). I will outline the strategic rationale of the PPBP's implementation, as well as the program's operational framework. The PPPB and PMSP have their origins in the introduction of the United Nations Convention on the Law of the Sea and the resulting security pressures this placed upon the region. Foremost among these security pressures was the presence of illegal maritime activities, such as Illegal, unreported and unregulated (IUU) fishing. For Australia, the PPBP represented a mechanism by which to promote stability throughout the Pacific region and, in turn, promote Australia's strategic interests.

Second, I will provide an analysis of the transition from the PPBP to the PMSP. I will analyse the challenges that faced the PPBP during its lifecycle, and the subsequent recommendations proposed for the incoming PMSP. Moreover, I will describe how the PMSP was initially implemented and how improvements to it were later made.

Third, I will critically analyse the remaining challenges to the PMSP. Specifically, I find that significant challenges persist in relation to climate change, and economic and operational limitations. I find that the PMSP will face resource and capacity constraints due to pressures induced by climate change. This, in turn, will intensify the challenges already faced by the program to ensure economic sustainability and operational self-sufficiency.

Finally, in consideration of these findings, I will provide policy recommendations for the PMSP. In total, I find that the program should: (1) Formally and strategically recognise climate change as a fundamental challenge to the program and region; (2) implement a climate change strategy; (3) seek greater engagement with New Zealand; and (4) continue and improve upon economic and operational capacity building.

Overall, the PMSP is an incredibly important policy for Australia and the Pacific region. While the program has met with considerable success, challenges persist. In the interests of Australia and the Pacific region, the PMSP should perceive these challenges as opportunities to consolidate and continue the program.

Part 1: Foundations of the Pacific Patrol Boat Program

Analysing the PMSP requires an understanding of the context of the program's beginnings in the PPBP. To set the scene, it is useful to understand the strategic rationale and operational framework underpinning the PPBP. Given the PMSP's status as the successor to the PPBP, and the strong operational continuation between them, investigating the context of the PPBP provides the necessary foundations to analyse the PMSP and its ability to withstand current and future challenges.

1.1 Strategic Rationale

1.1.1 The United Nations Convention on the Law of the Sea and the Pacific's Enforcement Limitations

When the PPBP was introduced in 1983, it was Australia's largest Defence Cooperation Program. It was created as a direct consequence of the adoption of the United Nations Convention on the Law of the Sea (UNCLOS) in 1982.[1] *Article 55* of UNCLOS established the concept of an Exclusive Economic Zone (EEZ), defined by the article as 'an area beyond and adjacent to the territorial sea, subject to the specific legal regime established in this Part, under which the rights and jurisdiction of the coastal State and the rights and freedoms of other States are governed by the relevant provisions of this Convention'.[2] Specifically, Article 57 of the Convention states that '[t]he exclusive economic zone shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured'.[3] Put simply, under the enforcement of UNCLOS from 1994, maritime states such as those in the Pacific region would be left responsible for huge maritime jurisdictions.

The scale of maritime responsibility under UNCLOS should not be underestimated. Pacific states such as Kiribati and Papua New Guinea (PNG), for example, became accountable for EEZs of over 3 million square kilometres.[4] Similarly, states like the Marshall Islands, Fiji and the Solomon Islands became liable for maritime domains of over 1 million square kilometres.[5]

As Sam Bateman and Anthony Bergin note, this equates to land-to-EEZ ratios ranging from PNG's 1:19 square kilometres, to Tuvalu's astonishing 1:27,885 square kilometres.[6]

Of course, to secure and enforce a state's EEZ requires a competent maritime constabulary force. Such a force requires sufficient surveillance and patrolling capabilities to ensure the effective enforcement of a state's maritime sovereignty.[7] However, before the introduction of the PPBP many Pacific states had no, or a severely limited, maritime constabulary force.[8] With the presence of several illegal and economically, ecologically and socially destructive practices occurring in the Pacific region, UNCLOS presented the region with a critical security threat.

1.1.2 Illegal Maritime Activities in the Pacific

Compounding the region's insufficient maritime constabulary capabilities was, and remains, the prevalence of illegal maritime activities. The greatest of these threats is Illegal, unreported and unregulated (IUU) fishing. The implications of IUU fishing disproportionately affect developing countries like those of the Pacific region, due to the insufficient monitoring, control and surveillance capabilities of those nations.[9] The occurrence of IUU fishing thus creates significant economic, ecological and social challenges.

First, IUU fishing provides a significant economic challenge to the Pacific region. The greatest economic loss associated with IUU fishing concerns the state's capital loss of the fish themselves (see figure 1.1).[10] On top of this, IUU fishing reduces state revenue from regulatory fees such as licensing and taxation.[11] Together, the effect of this exploitation is economically reverberates throughout the industry, from transportation services to fish processors and fisher employment.[12]

In total, this incurs a significant economic price. According to the World Resources Institute, regional economic losses from the fish value chain, loss of household income and loss of tax revenues totals an estimated USD13.8–27.2 billion per year.[13] Put into perspective, the median Gross Domestic Product (GDP) of the Pacific Islands[14] is just AUD600 million.[15]

The threat of IUU fishing in the Pacific, however, is not only an economic one. The practice also contributes to important ecological problems in the region. Due to the practice's unregulated nature, IUU fishing is a major contributor to the overexploitation and depletion of the world's fish stocks.[16] Specifically, IUU fishing vessels often use prohibited catching methods and gear.[17] Blast bombing, for example, has contributed to the loss of over 50 per cent of coral reef systems in Southeast Asia, while cyanide fishing damages and discolours coral colonies.[18] Similarly, the tendency for IUU fishing vessels to use non-species-specific gear contributes to the problem of by-catch, consequently disturbing and weakening the marine ecosystem as a whole.[19]

The World Resources Institute estimates that 24 per cent of all fish caught in the Pacific region are unreported. Approximately 50 per cent (3.7–7.2 million tonnes) of these unreported catches are sold illegally in international markets. This leads to regional annual gross revenue losses estimated at USD4.3–8.3 billion.

Source: Mansi Konar and Rashid U. Sumaila, 2019 (World Resources Institute)

Finally, it is important to note the social effect of IUU fishing. Economic and ecological consequences of IUU fishing incur significant social implications. The economic deficits and ecological destruction of this practice lead to decreased employment and food security in coastal communities.[20]

The European Union is one international institution that highlights IUU fishing's social impact by virtue of its role in weakening coastal communities.[21]

While IUU fishing is the greatest threat, it is not the only illegal maritime activity in the region. The Pacific region faces a plethora of secondary threats, such as drug, weapon human trafficking and smuggling, as well as associated crime.[22] Taken together, these illegal maritime activities pose significant maritime challenges to the Pacific region and threaten to impede its security and stability.

1.1.3 Australia's Rationale and Benefit

Thus far I have demonstrated the effect of the introduction of UNCLOS and the Pacific's enforcement limitations, as well as the presence of illegal maritime activities in the Pacific in creating momentum for Australia to implement the PPBP. However, what specifically were the rationale and benefits that motivated Australia to implement the program?

Put simply, the rationale behind Australia's implementation of the PPBP relates to its perception of the strategic risk that a weak and insecure Pacific region poses to Australia. In consequence of Australia's geographic proximity to the Pacific and its historical experiences of hostile power advancements into the region,[23] Australia has long perceived a credible threat of hostile power projection from an insecure Pacific region onto Australia.[24] This perception and historical experience, therefore, have influenced Australia's foreign and security policies concerning the region. As Joanne Wallis writes, for example, approximately half of the global aid donated to the Pacific region is provided by Australia.[25]

Australia perceived the implementation of UNCLOS and the persistence of security threats in the Pacific region as constituting a direct threat to its own security and stability. This led to Australia's decision to introduce the PPBP, which was announced on 29 and 30 August 1983 at the South Pacific Forum meeting.[26] Prime Minister Bob Hawke aptly summarised Australia's thinking in a speech he gave at the handover of the first Pacific Patrol Boat, HMPNGS *Tarangau,* to PNG on 16 May 1987:

> *The Australian Government accepts the security and stability of our region is fundamental to our own security and we see the Pacific Patrol Boat as an important initiative to that end.[27]*

1.2 Operational Framework

In response to the strategic challenges facing the Pacific region and in conjunction with Australia's strategic interest for stability in the region, Australia introduced the PPBP upon request by Pacific states.[28] To demonstrate how this policy supported this end, a brief analysis of the program's operational framework is necessary. This framework can be adequately understood by considering three components: patrol boat donation, support services and the program's cost structures.

1.2.1 Patrol Boat Donation

The most significant operational component of the PPBP was its patrol boat donation scheme. Broken down in Table 1.1, Australia supplied 22 *Pacific*-class Patrol Boats (PPBs) to PNG and 11 Pacific Island countries.[29] Reflecting the security challenges of the region, the primary task of these boats was to monitor, protect and enforce fisheries within states' EEZs.[30] Not neglecting other regional security concerns, the boats also conducted search-and- rescue missions, medical evacuations and general anti-crime operations.[31]

As Bergin and Bateman explain, to ensure the boats reflected the capacity of the Pacific states, the PPBs were designed to commercial and not military standard, in which ease of operation, low cost and simple maintenance were paramount.[32] The ASI 315 was nominated as the preferred design.[33] It had a range of 3000 nautical miles, a top speed of between 18 and 20 knots, and an at-sea endurance of 21 days, sustaining 12 to 14 crew members.[34] Armament capabilities of the boats consisted of either a 20 mm cannon, or .50 calibre and 7.62 mm machine gun options.[35] Finally, the boats were to be sustained over their life cycle, receiving a significant half-life refit between 1997 and 2003.[36] The fleet would be sustained until their gradual decommissioning between 2017 and 2027.[37]

Table 1.1. Pacific Patrol Boat Allocation

Recipient Country and Boat Number	Patrol Boat Name	Handover Date
PNG (1)	HMPNGS *Tarangau*	May 1987
Vanuatu (1)	RVS *Tukoro*	June 1987
PNG (2)	HMPNGS *Dreger*	October 1987
Samoa (1)	*Nafanua*	March 1988
Solomon Islands (1)	RSIPV *Lata*	July 1988
PNG (3)	HMPNGS *Seeadler*	October 1988
Cook Islands (1)	CIPPB *Te Kukupa*	March 1989
PNG (4)	HMPNGS *Basilisk*	July 1989
Tonga (1)	VOEA *Neiafu*	October 1989
FSM (1)	FSS *Palikir*	March 1990
Tonga (2)	VOEA *Pangai*	June 1990
FSM (2)	FSS *Micronesia*	November 1990
Tonga (3)	VOEA *Savea*	March 1991
Marshall Islands (1)	RMIS *Lomor*	June 1991
Solomon Islands (2)	RSIPV *Auki*	November 1991
Kiribati (1)	RKS *Teanoai*	January 1994
Fiji (1)	RFNS *Kula*	May 1994
Tuvalu (1)	HMTSS *Te Mataili*	October 1994
Fiji (2)	RFNS *Kikau*	May 1995
Fiji (3)	RFNS *Kiro*	October 1995
Palau (1)	PSS *President Remelik*	May 1996
FSM (3)	FSS *Independence*	May 1997

Source: Bergin & Bateman, 1999, p. 599

1.2.2 **Support Services**

Not only did the PPBP provide boat donations, the program also provided additional support services. First, Australia provided each recipient country with one Maritime Surveillance Adviser (MSA) and either one or two senior sailors qualified in maritime and/or electrical engineering to undertake a Technical Adviser (TA) role.[38] These MSAs and TAs proved particularly beneficial to the recipient countries and Australia through their capacity to build soft-power relations with senior military and police force personnel, as well as with government officials.[39] In some recipient states, such as Tuvalu, these advisers were the only Australian Government representatives in the country.[40]

Second, the program included avenues for crew education and training at the Australian Maritime College (AMC) in Tasmania, offering technical, communications and seamanship courses.[41] Third, with the first patrol boat scheduled to reach the end of its life in 2002, in 2000 Prime Minister John Howard announced a 25-year Life-Extension Program delivering major capital and technical upgrades to the PPBs, as well as the continuation of advisory, maintenance and technical support.[42] Australia also offered spare-part and technical assistance, together with through-life technical and logistical support via the program's Follow-On Support Agency.[43] Finally, to assist in cost complications by smaller Pacific recipients, Australia initially provided fuel and operational subsidies of up to AUD150,000 per annum; these were later phased out.[44]

1.2.3 **Program Cost**

The PPBP was a sizeable commitment by its Pacific islands recipients. Under the program, recipient states were required to provide funding for operations, maintenance and crew.[45] As Bateman and Bergin show, and which is demonstrated in Table 1.2, total operational costs of the program for recipient states ranged from Samoa's AUD291,000 to the Federated States of Micronesia's (FSM) AUD2.7 million.[46]

Cost constraints caused by the size of this commitment led Pacific islands recipients to reduce their use of the program, particularly during its final stages.[47] Some critics, such as Graeme Cheeseman, have gone so far as to label the economic structure of the program as a form of Australian coercion in the Pacific region.[48] However, as Anthony Bergin notes, the intensity of this claim can be easily refuted by virtue of the fact that the program was introduced in response to requests for assistance by Pacific states.[49] Nevertheless, the PPBP represented a serious economic commitment by recipient states.

Likewise, for Australia, the PPBP was a considerable investment. While an accurate total cost of the program is difficult to obtain, a cursory understanding of the program's cost to Australia demonstrates its sizeable commitment. Up to 1998, the cost of the program for Australia totalled AUD249 million.[50] Additionally, the 25-year Life-Extension Program in 2000 came at an additional cost of AUD350 million.[51] Furthermore, Australia's commitment to providing education and training to recipient states at the AMC cost Australia approximately AUD1.5 million per annum.[52] This illustrates the substantial publicly funded commitment by Australia to the PPBP.

Table 1.2. Cost of PPBP

Country	Total Operations Budget AUD (in thousands)	Cost per Patrol Boat AUD (in thousands)
Cook Islands	303	303
Fiji	860	287
FSM	2694	898
Kiribati	406	406
Marshall Islands	645	645
Palau	920	920
PNG	1587	397
Samoa	291	291
Solomon Islands	528	264
Tonga	692	231
Tuvalu	364	364
Vanuatu	450	450

Source: Bergin & Bateman, 1999, p. 599

Part 2: Transitioning to the Pacific Maritime Security Program

Despite challenges, the PPBP was a highly successful and beneficial program to both Australia and the Pacific region. As Sam Bateman and Anthony Bergin note, the program provided a strong foundation for improving the region's maritime security, resource protection and economic development.[53] In the simplest sense, the PPBP provided Pacific states with sovereign assets that allowed them to determine their own maritime independence.

More specifically, the PPBP provided significant economic benefits to recipient states. Through the program's ability to increase states' bargaining power, the PPBP helped Pacific states raise around USD70 million per annum in fishing access fees.[54] The FSM, moreover, increased its fishing access rights fees from USD2.1 million in 1979 to USD21.1 million in 1994.[55] The PPBP also acted as an important function for improving search and rescue, humanitarian assistance and disaster relief (HADR), and diplomatic capacities in the region (see, for example, figure 2.1). The PPBP represents a significant achievement in Australian and Pacific cooperation, coordination and promotion of common interests and values.

Speaking at the RFNS Kula*'s decommissioning, Rear Admiral Viliame Naupoto describes one of the Fijian Patrol Boat's greatest accomplishments as the successful search and rescue of two Vanuatuan sisters lost at sea.*

*Source: Illaijia Ravuwai, 2019 (*Fiji Sun*)*

As the first PPB, HMPNGS Tarangau, moved closer to its decommissioning, representing the PPBP's gradual conclusion, defence analysts and academics pivoted their attention to identifying the program's challenges and providing recommendations to ensure the consolidation of the program.

2.1 Challenges to the Pacific Patrol Boat Program and Recommendations

2.1.1 Cost Challenges

A significant challenge identified within the PPBP concerns its costs and subsequent limitations. As Linda McCann and Geoff Slocombe note, rather than innovation and development leading to lower costs over time, the cost of the PPBP has instead grown.[56] This is partly due to higher than expected milestone maintenance costs due to a lack of consistent through-life maintenance.[57] Problematic to the effectiveness of the program, Bateman and Bergin suggest that existing cost constraints have harmed the ability of recipients to use their PPBs.[58] These assessments are supported by McCaffrie, who notes that cost restraints are partly responsible for some recipients achieving a sub-optimal record of days-at-sea[59] per annum.[60] A summary of the recipients' days-at-sea is provided in Table 2.1.

Of course, this presents an operational efficiency concern. That is, as recipient states' days-at-sea records decrease, so too do their deterrence and enforcement capacities for reducing focus matters of the program such as IUU fishing.[61] Demonstrating the gravity of this concern, a 2008 Defence Department submission to the Senate Committee on Foreign Affairs, Defence and Trade stated that, due partly to cost challenges, the PPBP was too expensive to sustain and, therefore, that the program ought to be discontinued.[62]

Table 2.1. PPB Days-at-Sea

Recipient Country	Median of Total Days-at-Sea (Between 2006 and 2012)[63]
Marshall Islands	80
Cook Islands	73
Fiji[64]	72
Kiribati	70
FSM	69
Vanuatu	62
Solomon Islands	50.5
Palau	50
Samoa	49
Tonga	47
Tuvalu	38.5
PNG	33.5

Source: McCann, 2013, Attachment B

2.1.2 **Support Services and Maintenance Limitations**

A second source of challenges for the PPBP concerns its difficulty in sustaining support services and maintenance. Specifically, McCaffrie notes the challenge for recipient states to obtain suitably trained personnel.[65] Despite Australia's efforts to provide training at the AMC, recipient states often have no in-country education and training facilities, thereby increasing the cost of acquiring suitably trained crew.[66] This hints at a self-sustainability issue within the program.

The PPBP also faced limitations in sustaining its advisory support initiative. This is particularly concerning given the initiative's distinct importance to the program, as discussed in part

1.2.2 McCaffrie states, for example, that Australia faced barriers to sourcing suitably qualified and experienced MSAs and TAs, particularly as the program progressed.[67]

Finally, interconnected with cost challenges, McCann notes recipient countries' difficulties in regularly maintaining their PPBs.[68] McCaffrie's analysis support this, finding that smaller Pacific states with limited operational budgets struggled to sustain the AUD100,000 annual cost for maintenance.[69]

2.1.3 Consequent Recommendations

Given the importance of the PPBP to Australia and the Pacific region, and the presence of challenges, scholars and analysts proposed several key recommendations to ensure the consolidation and improvement of the PPBP's successor program, the PMSP:

1. Reflecting cost and maintenance challenges to the PPBP, McCaffrie and McCann note the importance of continuing the PPBP's boat design philosophy, which prioritised simplicity, low cost and ease of operability.[70]
2. Due to its strategic importance to Australia and its operational significance to recipient states, McCaffrie and McCann also stress the importance of continuing the MSA and TA advisory support initiative, despite their recognition of Australia's challenges sustaining the initiative.[71]
3. McCann notes the importance of sustaining the PPBP's training and education packages for recipient states.[72]
4. To consolidate the efficiency and potency of patrol boat enforcement and deterrence, McCaffrie recommends the PMSP improve its aerial surveillance capacity for recipient states.[73]

5. McCann proposes that the PMSP should involve greater cooperation with other regional leaders to improve Australia's facilitation of the program.[74]

6. Taking a holistic approach, Bateman and Bergin recommend that the PMSP ought not to neglect the fluidity of core challenges that face the region. While the authors note that illegal maritime activities, such as IUU fishing, remain a key focus for the program, other threats such as climate change should not be overlooked.[75]

7. Finally, Bateman and Bergin acknowledge that the region is likely to face increasing regional involvement from outside actors such as China. The authors recommend that the PMSP should consider providing a strategy for how it will seek to compete with, accommodate or cooperate with outside actors in the region.[76]

2.2   Implementation of the Pacific Maritime Security Program

2.2.1 Continuations

The PMSP is a 30-year continuation of the PPBP at an estimated cost of AUD2 billion over its life cycle.[77] At its core, the PMSP continues the patrol boat donation scheme. The 12 original recipient states will have their decommissioning PPBs replaced with 19 more advanced *Guardian*-class Patrol Boats (GPBs).[78] Two additional GPBs are scheduled to be donated to the PMSP's newest partner, Timor Leste, in 2023.[79] For a more detailed description of the GPB see figure 2.2.

The GPB is a 39.5-metre steel-monohull design based on the Bay-*class craft used by the Australian Border Force. The GPB is capable of top speeds of 20 knots and has a 3,000 nm range while travelling at 12 knots. The new patrol boat has improved accommodation to sustain 23 all-gender crew members. The GPB also includes a 1500 kg deck crane as well as a 16 m² cargo deck to support HADR capabilities. Recipient states were consulted about the vessel's design.*

*Sources: Austal (*Guardian-*class Patrol Boat), and Defence Sub-Committee, 2017*

Similarly, the PMSP will continue much of the PPBP's support services framework. A 2017 Joint Standing Committee on Foreign Affairs, Defence and Trade confirmed that the PMSP will continue Australia's provision of MSAs and TAs to recipient states.[80] Likewise, the report outlines that the PMSP will continue to provide Pacific partners with enduring training and maintenance support.[81] For example, Australia, in collaboration with Fiji, have commenced infrastructure upgrades to Fiji's Blackrock Peacekeeping and HADR Camp, providing education and training facilities as well as improved logistics amenities (see figure 2.3 for more information).[82] The Blackrock Camp, therefore, signals Australia's positive movement in providing greater in-country training and HADR facilities in light of the challenges faced by the PPBP.

The Blackrock Peacekeeping and HADR Camp is a joint Australia–Fiji infrastructure initiative. The facility will receive, for example, new fencing, a headquarters building, front entrance and guard house, a logistics precinct (including a HADR warehouse), education facilities, medical facilities and accommodation. Due for completion in 2021, the facilities will enhance Fiji's security and military training requirements, as well as its ability to respond to HADR demands.

Source: Department of Defence, Blackrock Camp, Fiji

2.1.1 Additions and Improvements

Improving upon the strong core continuations of the PPBP, the PMSP has also implemented several key additions and improvements. In addition to the replacement of decommissioned patrol boats, the PMSP has implemented two other key focuses: improved aerial surveillance and enhancing regional cooperation. Concerning aerial surveillance, the PMSP will build upon existing aerial surveillance capabilities and introduce a contracted civilian-manned fixed-wing aerial surveillance platform to be gradually implemented from 2017.[83] The improved aerial surveillance will become available to all existing PPBP partners, as well as Nauru, Niue and Tokelau, and will seek to improve enforcement of illegal maritime activities in the region.[84]

Second, the PMSP will focus its efforts to enhance regional cooperation. Outlined in the Defence Sub-Committee report, the Regional Coordination Working Group agreed for additional funding to be awarded to recipients undertaking regional cooperation under the PMSP Regional Coordination funding line.[85] This initiative provides incentives for recipient states conducting regional cooperation exercises such as the 2017 Operation Rai Balang (see figure 2.4 for more information).[86]

Finally, while not highlighted as a key focus of the PMSP in formal documents, the program has allocated extensive commitment to providing infrastructure initiatives throughout the region. In addition to the Blackrock Camp discussed previously, Australia has commenced its Joint Initiative Lombrum Naval Base Infrastructure Project in PNG.[87] As well as providing support for GPB operations, this infrastructure project will include community, work, training and accommodation facilities for the PNG Defence Force.[88]

Another example of Australia's regional infrastructure commitments is the program's wharf upgrades planned for all 13 recipient states.[89] This demonstrates both Australia's and the Pacific's commitment to the PMSP, as well as key attempts to ensure the consolidation of the program.

Coordinated by the Forum Fisheries Agency surveillance centre in the Solomon Islands, Operation Rai Balang 2017 used nine patrol boats from Fiji, FSM, Kiribati, PNG, Marshall Islands, Solomon Islands and Vanuatu. The Operation covered 14.7 million square kilometres and resulted in seven arrests of vessels conducting IUU fishing.

Source: Koroi Hawkins, 2017 (IUUWatch)

Part 3: Remaining Challenges for the Pacific Maritime Security Program

Thus far, I have demonstrated the significant diplomatic and policy achievement that is the PPBP and PMSP. Their ability to provide the Pacific region with sovereign assets to determine states' own maritime independence is critical not only for assuring maritime security in the Pacific, but also for improving the region's economic and social stability. For Australia, the program contributes to its capacity to lead regional cooperation and coordination. More broadly, the PMSP provides Australia with a mechanism to limit regional adventurism from external actors.[90]

I have also described the evolution of the PPBP to the PMSP, highlighting both programs' significant achievements and challenges. Regarding its ability to improve upon the PPBP's success, and to mitigate against several of its challenges, the PMSP signifies a substantial and positive step-up in Australia's presence in the Pacific region.

Nevertheless, despite the program's achievements, challenges persist. To be sure, these challenges ought not to be perceived and evaluated as fatal flaws in the PMSP, but rather as opportunities to ensure the program's continued success. Throughout the life cycle of the PPBP, and through the transition to the PMSP, the program has effectively overcome several key regional challenges. This signals the program's ability and willingness to adapt. As such, the PMSP ought to move forward to confront the following remaining challenges with measured, yet strong, optimism.

3.1 Implications of Climate Change

Climate change ought to be understood as a primary challenge and threat to the PMSP moving forward. Worryingly, however, the implications and future challenges associated with climate change are obvious omissions in the current PMSP strategy. While the PMSP's operational improvements to its replacement patrol boat program, aerial surveillance and regional cooperation are clear, there are no references to the program's plan for confronting future climate-related challenges to the program and region.

The omission of the program's climate plan comes despite references in various Department of Defence documents to the importance of confronting the security-related challenges associated with climate change. In the executive summary of the *2016 Defence White Paper*, for example, it is recognised that climate change, among other key challenges, 'will all lead to uneven progress and may lead to instability in some countries'.[91] Going further, the White Paper notes that climate change is a particular concern for the Pacific region specifically. In our immediate neighbourhood and the Pacific region, for example, the 2016 White Paper states that:

Climate change will be a major challenge…. Climate change will see higher temperatures, increased sea-level rise and will increase the frequency and intensity of extreme weather events. These effects will exacerbate the challenge of population growth and environmental degradation, and will contribute to food shortages and undermine economic development.[92]

In Australia's most recent Defence paper, the 2020 Defence Strategic Update, climate change is also identified as a key factor altering Australia's strategic environment. Specifically, the Strategic Update states that climate change is a threat to human security that will likely facilitate greater political instability in the Pacific region.[93] Consequently, the Strategic Update recognises the need for a greater focus on disaster relief and resilience.[94]

The Boe Declaration 2018 is a statement by Pacific Islands Forum members, including Australia, in recognition of an expanded concept of security. This includes human security, humanitarian assistance and environmental security. Under the Boe Declaration, climate change is recognised as the greatest threat to the Pacific region.

Source: Boe Declaration Action Plan (Pacific Islands Forum)

Australia has also made clear its understanding of the impact of climate change on the Pacific region at an international level. As part of the Boe Declaration on Regional Security (see figure 3.1), Australia, along with other members of the Pacific Islands Forum, have recognised that 'climate change remains the single greatest threat to the livelihoods, security and wellbeing of the peoples of the Pacific'.[95]

Finally, the 2018 Foreign Affairs, Defence and Trade References Committee on the Implications of climate change for Australia's national security provides greater specificity concerning these threats within the Pacific region.[96] It states that the Pacific:

> *has the greatest vulnerability to climate-induced humanitarian and natural disasters such as severe storms, flooding and extreme heat, as well as the flow-on effects such as damage to economic and social infrastructure, disease outbreak, malnutrition and food and water shortages.[97] This is a volatile mix of factors that heightens the security risk posed to Australia.[98]*

In sum, the threat of climate change to the Pacific region, and the globe more broadly, ought not to be understated. It is, therefore, of great concern that the PMSP, has yet to demonstrate a comprehensive understanding of this threat. While climate change-induced challenges to the program and region are broad and complex, those of greatest concern to the PMSP relate to climate change's implications for illegal maritime activities such as IUU fishing, and on HADR capacities.

3.1.1 Climate Change and Illegal Maritime Activities

One of the foremost functions of the PMSP concerns its enforcement and deterrence of illegal maritime activities such as IUU fishing throughout the Pacific. Climate change, however, will place greater pressure upon this function. As Basil Germond and Antonios Mazaris note, one of the most well-researched topics regarding the linkages between climate change and maritime security, is of its effect on fishing.[99] Alarmingly, the authors state that the prevalence of IUU fishing is expected to increase due to climate change.[100] This is because climate change's is expected to further exhausting global fish stocks, thus creating greater incentives for IUU fishing.[101] For the Pacific region, Germond and Mazaris conclude that this will incur significant economic and social costs for both coastal communities and Pacific states in general.[102] Of course, the PMSP is already well versed in understanding these impacts.

To best understand the seriousness of this interaction between climate change and IUU fishing, and its connection to the PMSP, the Pacific's tuna industry case study provides a sound example. The Pacific region's tuna industry is one of the largest in the world.[103] As Johann Bell et al. note, domestic tuna fisheries contribute between 3 per cent and 20 per cent of GDP in four Pacific states.[104] Similarly, licence fees from distant fishing nations contribute between 3 per cent and 40 per cent of government revenue for seven Pacific states.[105]

The Pacific tuna industry, moreover, employs over 12,000 individuals throughout the region.[106] Clearly, the tuna industry is a significant economic and social pillar of the Pacific region. However, is the impact of climate change upon this industry is expected to create problems due to climate change's influence in altering Pacific tuna stock distributions and fishing locations.[107] Bell et. al. show, for example, that as climate change-induced sea temperature change occurs, tuna are predicted to relocate and redistribute to more preferred habitat conditions.[108]

The World Risk Index 2019 ranks five Pacific Islands states within the top 20 most at-risk states to Climate Change and disasters. Vanuatu and Tonga are ranked first and third, respectively.

Source: The World Bank in Pacific Islands, 2020 (The World Bank)

In the case of Pacific tuna stocks, this will cause a west-to-east migration pattern over time, and thus see far greater tuna productivity in eastern Pacific fisheries compared with western Pacific fisheries.[109]

This redistribution and relocation of Pacific tuna stocks, however, poses great security threats to the region. As Gillett and Cartwright state, due to the over-exploitation and exhaustion of tuna stocks in other regions, notably Southeast Asia, the Pacific region, and in particular the eastern Pacific – with its expected higher tuna stocks – will likely become a more attractive source for fishing by distant nations globally.[110] While this is an opportunity for Pacific states to leverage this demand through increasing licensing fees, it also presents a major threat.[111] As Gillett and Cartwright state, a scenario of steady demand yet simultaneous exhaustion of tuna stocks elsewhere is likely to promote an increase in the region's incidence of IUU fishing.[112] Under this scenario, therefore, climate change plays a fundamental role in proliferating the threat of IUU fishing.

Tropical Cyclone Winston in 2016 was the most intense tropical cyclone in the southern hemisphere on record. Its impact on Fiji was horrendous. Approximately two in three Fijians were affected, killing 44 individuals, and leaving 131,000 others homeless. In total, the cyclone caused over AUD1.3 billion in damage. Put into context, that is approximately 20 per cent of Fiji's GDP. In response, Tonga deployed its patrol boat VOEA Neiafu *to assist.*

Sources: Resilience & Love in Action, 2017 (The World Bank), and Defence Sub-Committee, 2017.

Of course, given the PMSP's function as a mechanism to reduce illegal maritime activity, such a scenario places greater pressure on the program to successfully enforce and deter the practice. This poses a genuine threat, given the difficulty the program has already faced in ensuring recipients reach a satisfactory annual average of days-at-sea. This, therefore, present strong evidence for climate change's threat to the PMSP.

3.1.2 Climate Change and Humanitarian Assistance and Disaster Relief

The Pacific region is particularly vulnerable to natural disasters (see figure 3.2).[113] Between 1970 and 2014, for example, the region suffered 539 natural disasters.[114] Alarmingly, climate change will make such disasters more common.[115] As Jonathon Barnett notes, the effect of climate change-induced disasters will be most seriously felt by the atoll countries, including Kiribati, the Marshall Islands, Tuvalu and Tokelau.[116] By the year 2100, sea-level rise is predicted to inundate these atoll countries.[117.]

More relevant to the PMSP, these crises are also predicted within a short-term outlook. As Barnett notes, the Intergovernmental Panel on Climate Change identifies the serious risk of death, injury and disrupted livelihoods in low-lying and coastal states and small islands due to the prevalence and increased frequency of climate change-induced natural disasters.[118] In economic terms, Greg MacPherson states that, according to the World Bank, the cost of natural disasters to Tonga is currently equivalent to a loss of 4.4 per cent of GDP per annum.[119] In Vanuatu, this figure is as high as 6.6 per cent.[120] Finally, the World Bank estimates that the cost for Pacific atoll states to provide adequate protection against sea-level rise will equal between USD10 and 40 million per annum by 2040.[121] Put into context, this represents between 5 to 21 per cent of Kiribati's GDP annually.[122] Clearly, this presents a serious security threat to the Pacific region.

Of course, an increased frequency and intensity of natural disasters in the Pacific presents serious challenges for the PMSP. Patrol boats have previously been used in a HADR capacity, and Australia's infrastructure investment into Fiji's Blackrock HADR Camp indicates its intention to ensure this continues (see, for example, figure 3.3).[123] In sum, climate change presents a serious threat to the PMSP, adding further pressure regarding its efficiency and effectiveness to respond to, and withstand, demands for HADR capabilities.

3.2 Economic and Operational Challenges

A second source of challenges facing the PMSP concerns its ability to overcome economic and operational complexities. Specifically, the PMSP faces challenges to ensure economic sustainability, as well as to make sure that the program's recipients have enduring operational self-sufficiency to secure their maritime sovereignty, with or without the PMSP. Both focuses, moreover, relate to ensuring that the positive foundations that the PMSP have provided the region withstand the test of time and policy life cycle.

3.2.1 Economic Sustainability

A core challenge for the PMSP concerns ensuring the economic sustainability of the program. As discussed in part 2.1.1, throughout the program's life cycle, smaller recipients have experienced economic difficulties in sustaining the program. Unfortunately, upon transitioning from the PPBP to the PMSP, the program has not adequately addressed these issues. Instead, the PMSP has introduced a more advanced patrol boat replacement, the GPB. Given that smaller recipient states suffered economic challenges sustaining the less advanced PPB, these states will likely experience greater economic limitations throughout the PMSP's lifecycle.

Compounding this, economic sustainability is interconnected with a chain of related challenges. As discussed in part 2.1.1, PMSP recipients have experience economic difficulties in sustaining the program's operations. As a result of this economic unsustainability for some partners, the program has seen a limit to its effectiveness, measured through lower than expected annual days-at-sea.[124] While this report recognises, as McCann points out, that days-at-sea is not the only measure sufficient by which to judge overall success, nonetheless low records of days-at-sea incur challenges.[125]

For example, low records of days-at-sea limit the effectiveness of policing illegal maritime activities such as IUU fishing. Simultaneously, however, climate change-induced implications will place greater pressure on recipients to ensure the effective and efficient enforcement of IUU fishing, given the prediction for its proliferation. Therefore, not only does economic sustainability challenges persist currently, interconnected external challenges such as climate change will create greater pressure and urgency for the resolution of these challenges.

Similarly, climatic challenges, such as an increase in the frequency and intensity of natural disasters, also affect economic sustainability. As I demonstrated in part 3.1.2, natural disasters place a significant burden on Pacific states. In the case of Fiji in the aftermath of Cyclone Winston in 2016, this economic burden can be as high as 20 per cent of GDP.[126] As the frequency and intensity of natural disasters like Cyclone Winston increase, the PMSP, as a key mechanism for regional HADR response, will face greater pressure to ensure the effectiveness and responsiveness of the program's HADR capabilities. Such a scenario will put a greater economic burden on recipient states. This demonstrates the seriousness of the economic challenges facing the PMSP, particularly those relating to ensuring the economic sustainability of the program for recipient states.

3.2.2 Operational Self-sufficiency

Another challenge for the PMSP is to ensure a form of operational self-sufficiency for recipient states. A core aspect of the PPBP, and now the PMSP, is providing Pacific states sovereign assets for the self-determination of their maritime domain. In turn, Australia reaps the benefits associated with a secure and stable Pacific region, as discussed in part 1.1.3. Currently, the PMSP is a tremendous step towards creating operational self-sufficiency for recipients. But without the PMSP, as McCaffrie and Graham note, some Pacific states will once more be left without a capacity to secure their maritime domain from threats, placing them in a similar position to the one

they were in before the PPBP was implemented.[127]

To be sure, Australia has implemented substantial projects in an attempt to foster such operational self-sufficiency. For example, Australia's wharf infrastructure project for all PMSP partner states provides a significant capability for recipients to sustain the program's operations themselves.[128] Australia's infrastructure commitments to PNG's Lombrum Naval Base Project and Fiji's Blackrock HADR Camp are further demonstrations of Australia's intent to provide operational self-sufficiency throughout the region. This not only contributes to supporting recipient states' operational self-sufficiency, but also provides critical industry building pathways, including economic inputs and outputs.

Nevertheless, while the PMSP has provided avenues for creating operational self-sufficiency, it faces a major challenge. The program has yet to provide a framework for how it will ensure that recipient states can determine their own maritime domain without the PMSP. For Australia, this ought to be a critical long-term aim of the program, to ensure that the significant investments that Australia and its Pacific partners have undertaken provide truly enduring rewards. The PMSP continues to provide important steps towards this end goal; however, the PMSP must ensure it provides a strategy for the how this goal will eventually be achieved.

Australia has significant incentives to strive to achieve operational self-sufficiency for recipient states. At its most basic level, operational self-sufficiency ensures that any insecurities that Australia might face as a result of the Pacific's inability to determine its own maritime domain do not rest upon guaranteeing the long-term continuation of the program. This incentive will become increasingly important as the program faces greater economic and climate change-related pressures. Moreover, the more effectively the PMSP ensures operational self-sufficiency, the greater will its ability be to redistribute funding to other pressing focuses of Pacific maritime security.

Not only will this place the PMSP in a superior position to ensure its continuation, it will also enable the PMSP to expand its contribution to regional cooperation, coordination and development. For the moment, a challenge remains for the PMSP to build upon its intent to ensure operational self-sufficiency for recipient states.

Part 4: Policy Recommendations

The previous analysis provides a foundation for discussing policy recommendations that the PMSP can implement to consolidate its success. I will explore a range of recommendations, each with differences in priority, difficulty and gains. I acknowledge that while some recommendations may present relatively clear pathways of action, other more complex recommendations will require significant political will, both domestically and internationally.

4.1 Climate Change Action

Climate change, as demonstrated, is a profound challenge facing both the PMSP and Pacific region. The implications of climate change flow throughout the program. Its impacts provide

challenges to the program both directly and indirectly through its multiplying effect on existing pressures such as economic sustainability. As such, climate change action ought to be considered the highest priority of policy recommendation implementation.

4.1.1 Recommendation 1: The PMSP should formally and strategically recognise climate change as a fundamental challenge to the program and region.

The PMSP must recognise the strategic implications of climate change upon the program and Pacific region. This recommendation should be considered to be of the highest priority because it lays the foundations for greater climate change action.

> Policy Description: Fundamentally, the PMSP ought to implement a robust and comprehensive recognition of the ways in which climate change will affect the program and the Pacific region. Unlike current arrangements, the PMSP should make strong reference to climate change in relevant documents. As one mechanism to do so, the PMSP should install a fourth focus to its current three-part structure. This focus should reference the program's intent to proactively and reactively coordinate and cooperate to reduce the implications of climate change within the Pacific region.

> Policy Objective: This recommendation should, ultimately, strive to provide the necessary groundwork for greater climate change action. It should seek to facilitate a program-wide consensus concerning the ways that climate change will affect the interactions between recipient states and the PMSP. By successfully doing so, this will provide a mechanism to assist Australia and the PMSP to identify both program-wide and state-specific climate change challenges.

4.1.2 Recommendation 2: The PMSP ought to implement a Climate Change Strategy

If the PMSP is to effectively and efficiently coordinate and cooperate to respond to the plethora of challenges associated with climate change, the program should implement a comprehensive climate change strategy.

> Policy Description: In consultation with the PMSP's partner states, the program must implement a detailed climate change strategy. As such, this recommendation should be considered a subsequent step to recommendation 4.1.1. As part of implementating a comprehensive climate change strategy, the PMSP should consider and reflect upon the foundations set by discussions facilitated by recommendation 4.1.1. Reflecting the findings of this report, this strategy should also pay close attention to providing a detailed strategy to manage climate change-induced increases in IUU fishing and HADR demands in the region. This strategy might take inspiration from existing climate change plans such as the *Sendai Framework for Disaster Risk Reduction 2015–2030*.[129] Regardless, state-specific needs and vulnerabilities must be taken into consideration.
>
> Policy Objective: This recommendation should seek to ultimately prepare the PMSP to deal with climate change-related challenges moving forward. This recommendation,

therefore, should be perceived as a short- to mid-term objective to consolidate the program over the long term. Moreover, a detailed climate change strategy provides an important signal to Australia's Pacific partners that Australia is indeed a regional partner that they can rely on to assist with both traditional security threats, as has the current PMSP, and alternative security threats such as climate change.

4.2 Investigating Greater Regional Engagement

The PMSP faces several challenges, be they economic, operational or climate change-related. Regardless of their cause, the challenges facing the PMSP all place greater pressure on the current resources of the program, and thus, the program's ability to most effectively and efficiently mobilise these resources to achieve its goals. Promoting greater regional engagement, particularly by other regional leaders, provides one mechanism by which the PMSP can increase its aggregation of resources, and therefore reduce the intensity of pressures facing the program.

4.2.1 Recommendation 3: The PMSP should seek greater engagement with New Zealand

Perhaps the most likely regional leader to provide greater engagement with, and assistance to, the PMSP is New Zealand. As Linda McCann notes, Australia and New Zealand have been cooperating in the Pacific region since at least 1944 when the ANZAC Pact was signed.[130] New Zealand has already demonstrated its willingness by providing support to the PMSP, contributing to the program's adviser initiative for the Cook Islands.[131]

Moreover, through its own maritime operations, New Zealand has provided benefits to the program. McCann describes, for example, HMNZS *Otago*'s ten-week deployment in 2012 to the South Pacific, providing assistance to Cook Islands police and fisheries officers to board fishing vessels within the state's EEZ, as well as providing training for PPB crew members.[132]

Established in 2011 under the New Zealand Aid Program, the Pacific Maritime Safety Program supports maritime safety and security in the region. Administered by the Ministry of Foreign Affairs and Trade and delivered by Maritime NZ, the program partners with Kiribati, Niue, Tuvalu, Tokelau, Cook Islands, Samoa and Tonga. The program's five focus areas include: regulatory support, search-and-rescue and oil pollution response, domestic vessel safety and infrastructure, community education and awareness, and support for the education and training of seafarers.

Source: Pacific Maritime Safety Program, Maritime NZ

Finally, New Zealand's 2018 Strategic Defence Policy Statement outlines its commitment to the region. It states, for example, that the New Zealand Defence Force commits to '[m]ake a credible contribution in support of peace and security in the Asia-Pacific region, including in support of regional security arrangements'.[133]

New Zealand's policies demonstrate this commitment. In 2011, for example, New Zealand implemented the Pacific Maritime Safety Program (NZPMSP) (see figure 4.1). Under the NZPMSP, New Zealand contributes to regional HADR capacities, education and infrastructure building.[134] This commitment shows the feasibility of New Zealand's greater involvement within the PMSP.

> Policy Description: The PMSP ought to seek greater formal cooperation with New Zealand. This recommendation should be approached as an opportunity to extend and aggregate resources, and, ultimately, regional leadership. Given the overlap between current operations in the region between the NZPMSP's and the PMSP's current HADR capabilities, this provides one such avenue for cooperation. However, engagement should not be limited to the PMSP and NZPMSP. The program should engage with New Zealand's 'Pacific reset', which has placed greater emphasis on regional engagement.[135] Climate change- and HADR-related challenges are particular concerns for New Zealand, and therefore, given this report's demonstration of the increasing challenges within this domain, the PMSP should focus on securing formal cooperation engagements with New Zealand to address these concerns.[136] This could, for example, take the form of providing training and education, planning, infrastructure projects or joint operations with either Australia or other PMSP recipients.
>
> Policy Objective: This policy should be pursued under the overarching objective of ensuring the PMSP's consolidation, particularly given climate change-induced resource challenges. This policy should be implemented with the primary focus on ensuring greater engagement in areas in which New Zealand is most likely to participate, such as in HADR. In the long term, however, the program should seek to encourage a more diverse New Zealand engagement within the program.

4.3 Economic and Operational Capacity Building

Given the economic sustainability and operational self-sufficiency challenges facing the PMSP, the program ought to ensure it continues to strongly invest in projects that build economic and operational capacity. Australia has already invested in infrastructure projects such as the Lombrum Naval Base, the Blackrock HADR Camp, and program-wide wharf infrastructure. These projects not only provide the necessary groundwork for creating and improving recipient states' operational self-sufficiency, but also perform an important economic and social function. The Blackrock HADR Camp, for example, created approximately 600 local Fijian jobs.[137] This shows the importance of building economic and operational capacity.

4.3.1 Recommendation 4: The PMSP should continue and improve upon economic and operational capacity building

Policy Description: The PMSP must ensure that investing in economic and operational capacity building continues. Ultimately, this function of the PMSP should become a cornerstone of the program. For larger recipient states, such as PNG and Fiji, the program ought to continue investment into larger infrastructure projects that act as hubs for regional engagement, similar to the Blackrock HADR Camp. For smaller states, on the other hand, the PMSP should invest in promoting industry building revolving around providing adequate HADR resilience and response measures. Policy Objective: This policy serves two purposes. First, it provides the necessary foundations to ensure that the PMSP continues to promote operational self-sufficiency for recipient states. Second, this policy recommendation provides direct benefits of industry building to local recipient communities, in turn contributing to creating greater economic sustainability within the program. Overall this policy recommendation performs a critical role in ensuring the consolidation of the PMSP.

Conclusion

The Pacific Maritime Security Program is a fine example of Australia's political and diplomatic leadership in the Pacific region. Through its endeavour to provide solutions to regional challenges, the program is a positive expression of Australian power projection. The PMSP has provided Pacific nations with the assets and wherewithal to confront major challenges within the region, such as IUU fishing. As such, not only does the PMSP provide Pacific nations with sovereign assets to self-determine their maritime domain, it also acts as a vital tool for the promotion of the region's economic prosperity.

The PMSP has achieved significant success, but as I have demonstrated, the program faces serious challenges relating to climate change and its ability to withstand economic and operations challenges. The PMSP should perceive these challenges as opportunities to consolidate its continuing success.

In this report, I have shown that climate change is a primary concern for the program. Foremost, the PMSP must provide far greater recognition of climate change's impact on both the program and region. Moreover, the program should implement a comprehensive climate change strategy as a tool for identifying and preparing against the inevitable pressure that climate change will induce. As such, climate change action should be considered the highest priority for policy implementation.

Additionally, I have identified the positive foundations that the PMSP has provided for ensuring economic sustainability and operational self-sufficiency. The program's infrastructure projects, such as the Lombrum Naval Base, Blackrock HADR Camp and wharf infrastructure initiative, are important examples of this. Nonetheless, economic and operational pressures will intensify

over time, to a large extent because of climate change. The promotion and improvement of these economic and operational capacity-building projects will increase in value over time.

With respect to the findings in this report, several recommendations for future research can be made. First, the nature of this project limited the ability to conduct rich case studies of individual PMSP partners. Future research with the capacity to engage in greater case study analysis would provide fresh insights into this research. Second, further research should be conducted to provide in-depth models of how this report's recommendations can be operationalised within the program.

Overall, I have demonstrated the Pacific Maritime Security Program's profound value to Australia and the Pacific region. Australia should ensure the program's consolidation and continuation. Nevertheless, to successfully do so, the PMSP must consider and adapt to its future challenges.

List of Acronyms and Abbreviations

AMC	Australian Maritime College
EEZ	Exclusive Economic Zone
FSM	Federated States of Micronesia
GDP	Gross Domestic Product
GPB	*Guardian*-class Patrol Boat
HADR	Humanitarian assistance and disaster relief
IUU fishing	Illegal, unreported, and unregulated fishing
MSA	Maritime Surveillance Adviser
NZPMSP	New Zealand Pacific Maritime Safety Program
PMSP	Pacific Maritime Security Program
PNG	Papua New Guinea
PPB	*Pacific*-class Patrol Boat
PPBP	Pacific Patrol Boat Program
TA	Technical Adviser
UNCLOS	United National Convention on the Law of the Sea

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