

ROYAL AUSTRALIAN NAVY

# SEA POWER

## SOUNDINGS



Issue 23, 2021

## **Fiji's 'Blue Economy' and the importance of maritime security**

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## Introduction

The oceans cover two-thirds of the earth's surface and have long been a source of livelihood and sustenance. They also provide minerals and food for life, they generate oxygen, absorb greenhouse gases, mitigate climate change, influence weather patterns and temperatures, and serve as highways for human transport and seaborne trade. Pacific Island nations have for centuries relied on the oceans for their main source of livelihood and economic progress. For Fiji, the oceans are a pillar of the nation's prosperity by providing food and a driving economic success.

However, the oceans are under increasing threat from pollution and exploitation by criminal elements. Further pressure on the oceans comes from the threat of rising sea levels, ocean acidification, warmer temperatures and extreme weather events resulting from climate change. Coastal states and island nations have adopted the concept of the 'blue economy' to align conservation with economic development and sustainability. For Fiji, embracing the 'blue economy' is crucial to sustaining the oceans which contribute directly and indirectly to a third of the Nation's Gross Domestic Product (GDP).<sup>1</sup>

Conservation and sustainability can be achieved only if the legal frameworks which secure critical background conditions are sufficient and enforced. That is where maritime security comes in. Maritime security is fundamentally important as it creates conditions for the 'blue economy' to thrive. Nations should have the appropriate competent entities to ensure that maritime security challenges are adequately managed and threats to maritime security controlled. In Fiji, the Republic of Fiji Navy (RFN) provides that critical role. The RFN is central to Fiji's 'blue economy' and it is critical that its role is widely understood and well supported by the nation.

In this paper I assess Fiji's oceans economy and the adoption of the 'blue economy' concept to promote sustainable development. I contend that the protection of oceans and resources is critical to Fiji's economy and the livelihoods of its people. While there are several sectors of Fiji's 'blue economy', the paper will focus primarily on maritime/coastal tourism, the fisheries sector and the maritime transport and trade sector. I will highlight why it is important to adopt the 'blue economy' concept given the ocean's contribution to economic progress and social development. Some policies outlined in Fiji's National Development Plan and the Green Growth Framework will also be discussed. The paper will also discuss maritime security highlighting its contribution to the 'blue economy'. I explore maritime security challenges currently facing Fiji and the South Pacific region. The role of the RFN in the maritime security realm will be discussed and shortfalls and challenges currently faced by the RFN highlighted. Finally, the paper will make some recommendations on ways in which the RFN can be supported so as to enhance its role in maritime security.



### **From an oceans economy to a ‘blue economy’**

The economic sectors of the oceans include fisheries and aquaculture, maritime transport and ports, coastal tourism and mineral exploitation, as well as innovations like marine renewable energy. These sectors have continually evolved and have contributed immensely to the global economy. Research by the Organisation of Economic Cooperation and Development (OECD) in 2016 valued the global oceans economy in 2010 ‘at US\$1.5 trillion per annum, contributing approximately 2–3 per cent to the world’s GDP.’<sup>2</sup> Marine services, such as tourism and shipping, provide the largest proportion (US\$880 billion), followed by sectors categorised under marine resources (US\$377 billion) and marine manufacturing (US\$107 billion).<sup>3</sup> A report by the United Nations Conference in Trade and Development (UNCTAD), highlighted that ‘globally approximately 350 million jobs are linked to the maritime sectors’.<sup>4</sup> The report also noted that over one billion people depend on fish as a primary source of protein.<sup>5</sup>

Noting the significant economic contribution of the oceans, the health of oceans and seas must be maintained to promote sustainable development and continued economic progress, especially for countries that are heavily dependent on it for the prosperity and livelihoods of its people. Oceans, however, are not limitless and are increasingly under threat by human actions, such as climate change, acidification of oceans, overexploitation and poor management of fisheries, wastewater runoff, pollution of waterways, and seabed mining and extraction.<sup>6</sup> These factors have undermined the health of the oceans’ ecosystem and resources, thus placing the oceans economy at risk. There is an urgent need for sustainable use of the oceans and for adopting mitigating and adaptive measures against the risks outlined above. The concept of a ‘blue economy’ was adopted at the 2012 United Nations Conference on Sustainable Development (Rio +20) to promote sustainable use of oceans.<sup>7</sup> This evolving concept recognises the need to maximise the enormous economic potential presented by the oceans while preserving them.<sup>8</sup> The term ‘blue’ reflects the need to sustainably manage and protect the oceans and their resources, noting the importance of the ocean’s health in sustaining economic growth.<sup>9</sup>

While the use of the term ‘blue’ to reflect sustainability may be a contemporary term, it is an old paradigm, particularly for islands in the Oceania region like Fiji. Pacific islanders are renowned for adaptive, responsive, environmentally sensitive ‘traditional’ practices like harvesting limitations, closed seasons, limited use rights, and the protection of ecologically and culturally significant sites’.<sup>10</sup> As a relatively new concept, there is bound to be confusion and opposing views on what the ‘blue economy’ means. Despite different views, it is apparent that there is a need to consider the environmental risks and ecological damage in economic development. Failure to do so would be detrimental to the sustainable development



of the oceans. A 'blue economy' is one in which economic activity and progress is in balance with sustaining the ocean's ecosystems and ensuring that the oceans remain resilient and healthy for future generations. The blue economic concept promotes economic prosperity, social inclusion, and the preservation and improvement of livelihoods and, in the process, it would also ensure that the environment is preserved and sustained.<sup>11</sup> For Small Island Developing States (SIDS) with relative large Exclusive Economic Zones (EEZ) and small landmasses, like Fiji, the oceans provide a considerable base for their economic progress. SIDS' economic vulnerability is further exacerbated by isolation from their major trading partners, high dependency on aid, high transportation costs and their vulnerability to extreme weather events and the impact of climate change. That is why SIDS like Fiji have strongly supported and embraced the concept of the 'blue economy' with its emphasis on the sustainability of the oceans and their resources.

The 'blue economy' concept is aligned with the United Nations General Assembly Sustainable Development Goal 14 (SDG 14), which focuses on conservation and sustainable use of the oceans and marine resources. SDG 14 has the following ten 'targets':

1. Prevent and reduce marine pollution
2. Protect marine and coastal ecosystems
3. Minimise acidification of oceans
4. End overfishing and illegal and destructive fishing practices
5. Conserve at least 10 per cent of coastal and marine areas
6. End harmful fisheries subsidies
7. Increase economic benefits to small island states
8. Develop knowledge and research
9. Help small-scale fisheries
10. Implement United Nations Convention on the Law of the Sea (UNCLOS)

SDG 14.7 notes the increased economic benefits to small island economies of the 'blue economy' concept, and its adoption is envisaged to achieve this target's goals.

The need to preserve Fiji's natural resources to ensure a sustainable economy features strongly in the Fijian Government's narrative, but this is not widely known in communities. The paradigm of protecting natural resources has been central to recent government policies and initiatives, as reflected in the Green Growth Framework for Fiji, launched in 2014 with the aim of 'restoring the balance in development that is sustainable for the future'.<sup>12</sup> Complementing the Green Growth Framework is the 5-Year and 20-Year National Development Plan, launched in November 2017, which has sustainability and conservation central to its policies. The health of oceans and ecosystems is fundamentally important to Fiji



and its economy, which is why embracing the ‘blue economy’ concept is such a vitally important undertaking. At the opening of the first ‘blue economy’ conference in Suva in 2017, the Fijian Prime Minister, Frank Bainimarama, noted that ‘Our very identity as Pacific Islanders is tied intimately to the health of our oceans and to the marine plant and animal life that inhabit them. We are oceanic peoples, with cultures, histories and ways of life that are all rooted in the ocean environment.’<sup>13</sup> Such a statement highlights the value of the oceans to Pacific islanders and the fact that a threat to the ocean’s ecosystem is a threat to their survival.

The five activities of the ‘blue economy’ highlighted by the World Bank Group and the United Nations Department of Economic and Social Affairs are:

1. The harvesting and trade of marine resources
2. Extraction and use of marine non-living renewable resources
3. Use of renewable non-exhaustible natural forces (wind, wave and tidal energy)
4. Commerce and trade in and around the oceans
5. Indirect contribution to economic activities and environments.<sup>14</sup>

The activities that featured prominently in Fiji’s ‘blue economy’ are the harvesting and trade of marine resources, and commerce and trade in and around the oceans. Harvesting and trade of marine resources include the primary and fisheries industry, trade of seafood products and aquaculture. Commerce and trade around the oceans include maritime transport and trade, shipbuilding and port services, and tourism and recreation. These sectors contributed 20 per cent of Fiji’s GDP in 2016. In contextualising Fiji’s ‘blue economy’, three sectors that fall under these activities will be analysed.

## **Fiji’s ‘Blue Economy’**

### **Harvesting of marine living resources – fisheries**

The harvesting of marine living resources like fisheries is a critical sector for global trade. This activity involves seafood harvesting for food and nutrition and also the harvesting of marine living resources for cosmetics and pharmaceutical products. A 2016 report from the Food and Agriculture Organization (FAO) noted that ‘marine fisheries provide a livelihood for an estimated 300 million people and is responsible for meeting nutritional needs for 3 billion people who rely on fish for protein, omega 3 fatty acids and essential micronutrients’.<sup>15</sup> The fisheries trade continues to grow, and in 2013 was estimated to have reached US\$136 billion.<sup>16</sup> It is projected that the demand for the sector will continue to increase, especially in developed countries and Asia in particular. Due to dwindling fish



stocks in neighbouring seas of industrialised countries, the demand and search for fish particularly tuna will increasingly shift to areas where fish stocks are available and on most occasions to the EEZ's of SIDS like Fiji.

Marine fisheries are particularly important to SIDS since they provide protein and since they are the single source of livelihood for most of its coastal communities. In some SIDS, the fisheries sector can contribute up to 10 per cent of GDP and provide 90 per cent of a people's protein intake.<sup>17</sup> The fisheries sector is also crucial to Fiji's economy. In 2016, fisheries and aquaculture harvests in Fiji amounted to FJ\$144 million and 1.83 per cent of Fiji's GDP.<sup>18</sup> The fisheries sector is Fiji's second-largest export earner and is responsible for the livelihoods of thousands of Fijians.

Fiji fisheries include a wide range of both coastal resources and deep water pelagic fisheries like tuna, which is a significant and valuable export for the country. The number of people working directly in the tuna industry alone in Fiji in 2014 was 20.8 per cent of the total number of people employed across the Pacific.<sup>19</sup> The trend of tuna industry-related jobs in Fiji remains stable despite some indication of lower catches in Fiji waters.<sup>20</sup> This is mainly due to fishing fleets from countries like Vanuatu offloading catches in Fiji. The regional catch of tuna remains higher than anywhere else in the world. Fiji lies in the western and central Pacific region, which in 2014 accounted for 60 per cent of the global tuna catch.<sup>21</sup> Fiji, however, is at the fringes of the main migratory route of tuna stocks and on average only 1 per cent of the regional catch is caught in Fijian waters.<sup>22</sup> Nevertheless, Fiji has a viable tuna fishing industry as an offloading and value-adding point for tuna catches from the region.

While offshores fisheries like tuna are critical to Fiji, the contribution of coastal fisheries is also significant. A review of the fisheries sector in Fiji in 2015 highlighted that the value of the coastal fisheries (FJ\$133 million in 2014) is more than that of the offshore fisheries (FJ\$107.6 million in 2014).<sup>23</sup> The coastal fisheries supply a critical source of protein to Fijians, as well as being vital to their livelihoods. This sector produces more than 16 times the food for local consumption than the offshore fisheries.<sup>24</sup> Furthermore, in terms of employment, the coastal fisheries contribute up to 96 per cent of employment provided in the entire fisheries sector.<sup>25</sup> Sustaining the coastal fisheries sector has become increasingly important. The aquaculture sector is still only small, but it has great potential for growth in Fiji. In 2014, the total value of aquaculture harvests was US\$1.4 million.

Given the prominence of the fisheries sector to Fiji's economy and the livelihoods of communities, ensuring that this sector is sustainable and the ocean's ecosystem remains healthy and resilient becomes increasingly important. This is recognised in the Fiji Government's National Development Plan 2017 (NDP 17), in which 'sustainably managed



fisheries resources' is a key theme. The adoption of the 'blue economy' concept is a welcome as it will ensure that sustainable activities are core to the economic development of this vital sector.

The NDP 17 noted three policy undertakings to ensure fisheries resources are sustained. Firstly, it aims to 'sustainably manage the benefits from offshore fisheries resources'.<sup>26</sup> This would include the review of existing acts and policies to ensure that those frameworks not only encourage growth in the sector but also ensure that fisheries resources are well managed. The policy promotes collaboration between the Fiji Government, the private sector and regional countries on working on frameworks and strategies that would ensure that benefits from fisheries resources are maximised while at the same time ensuring sustainability.

Secondly, the policy aims to 'support inshore/coastal fisheries through sustainable management and development'.<sup>27</sup> Legislation review, data collection and capacity building will be core activities in this policy. Furthermore, investing in monitoring, control and surveillance activities is also a crucial aspect of this policy to ensure that fisheries resources are properly managed.

The third policy is to 'support the growth of aquaculture industries' in the country.<sup>28</sup> The policy will create legislation and legal frameworks to support the aquaculture sector and ensure that it is sustained. Provision of technical expertise and finance is also part of the policy to promote growth in the sector.

Apart from the three policy undertaking highlighted above, the Fiji Government will continue to support and conduct conservation activities such as creating Marine Protected Areas (MPA) and rehabilitating ocean ecosystems, which is aligned to the SDG 14.

### **Maritime transport and trade**

The use of the oceans for commerce and trade will always be vital to the global economy. Oceans are critical for maritime trade and are fundamental in ensuring connectivity among the global economies. Up to 80 per cent of the world's trade by volume and 70 per cent by value is transported by sea.<sup>29</sup> With more than 50 per cent of the global population and most industrial hubs located in coastal areas, the oceans will remain a vital medium for transporting goods and people.<sup>30</sup> In 2014, maritime global trade was 9.84 billion tons and is projected to grow at a moderate pace.<sup>31</sup> The growth of shipment of goods at sea will also see growth in other maritime-related services such as ports services and shipbuilding services. Maritime connectivity is fundamental to the economies of SIDS, given their reliance on imports and uninterrupted global trade.



The ocean is a trade artery for Fiji's economy, and it is paramount that growth in maritime trade is encouraged as part of the 'blue economy'. Up to 96 per cent of Fiji's trade by volume is conducted by sea, and for the past two decades Fiji's maritime transport sector has continued to experience growth.<sup>32</sup> The shipbuilding industry and port services contributed directly up to 2.3 per cent to Fiji's GDP in 2016.<sup>33</sup> Fiji is also considered to be a strategic hub for the South Pacific, which has prompted investment in the upgrade of infrastructure to support maritime trade and transport within the region.

Neighbouring countries like Tuvalu and Kiribati heavily rely on Fiji ports as a transshipment points for goods with the rest of the world.<sup>34</sup> Fiji has engaged international partners, notably the Asia Development Bank, to give technical assistance in developing a Port Master Plan, which will improve efficiency and productivity at Fiji's main ports.<sup>35</sup> The NDP 17 highlighted that investment will be aimed at improving berthing capacity and access of berthing by bigger vessels, acquiring modern technology to improve efficiency, and supporting industries like the shipbuilding and repair services.<sup>36</sup> The shipbuilding and repair industry continues to grow, with increasing numbers and sizes of vessels undergoing repairs in the country.<sup>37</sup>

Increasing numbers of cruise liners are visiting Fiji's ports. In 2015, for instance, up to 158,000 tourists visited Fiji by sea and up to US\$123 million was invested into the country directly and indirectly as the result of ship visits.<sup>38</sup> However, the increased maritime traffic in Fiji's ports has also generated pollution, particularly oil pollution from ships. Inevitably, damage caused by pollution will impact fishing and tourism. In 2013, 39 maritime incidents were reported in Fiji, of which 12 were groundings with high risks of oil spillage.<sup>39</sup> In 2017 a container vessel, the *Phoenix*, sank in Suva harbour resulting in a minor oil spill. Such incidents highlight potentially detrimental environmental risks associated with the maritime transport industry.

Fiji is cognisant of the environmental risks associated with maritime transport and has taken positive actions to mitigate the threat to the health of oceans and ecosystems. The nation acceded to the International Convention for the Prevention of Pollution from Ships (MARPOL) in 1983 and adopted the measures associated with the convention, albeit with enforcement shortfalls. Globally, implementation of the convention had a very positive impact. Since the inception of the convention in 1974, there has been a huge reduction in global oil spills accidents from as high as 25 cases in the 1970s to less than five in the past decade.<sup>40</sup> The convention has also contributed to the use of environmental friendlier fuels that has reduced sulphur content in fuel oil.<sup>41</sup>

Because damage caused by shipping could adversely affect the fisheries and tourism sectors, Fiji continues to work towards ensuring safe and healthier seas by aligning itself to



international conventions like MARPOL and the International Convention for the Control and Management of Ships' Ballast Water and Sediments (2004). One of the strategic goals stipulated by the Fiji Government in the NDP 17 was 'enhancing Fiji's status as a vibrant and modern regional and international hub for people and cargo movement'. A key policy to attain this goal was to 'promote sustainable development through the application of world best practices in all ports'.<sup>42</sup> This would be done by strengthening legislation related to maritime pollution, enhancing the capacity and capability of national bodies to deal with maritime pollution, and promoting collaborative efforts nationally, regionally and globally in dealing with oil spills or maritime pollution.<sup>43</sup> Such initiative and direction from the government are consistent with the 'blue economy' concept.

### **Coastal and maritime tourism**

The tourism industry is fast becoming one of the largest businesses globally, with research showing that it employs 1 out of every 11 persons worldwide.<sup>44</sup> The total contribution of tourism to the global economy stood at US\$7.6 trillion in 2016 and represented 10.2 per cent of the world's GDP. It grew by 9.8 per cent from 2015 to 2016 on the back of a seven-year period of consistent growth.<sup>45</sup> The tourism industry is a critical source of foreign exchange for SIDS like Fiji and is directly linked to the social, economic and environmental well-being of many SIDS. The number of tourists arriving in SIDS has continued to grow steadily; for example, it grew from 28 million in 2000 to 41 million in 2013.<sup>46</sup> Fiji experienced an all-time high tourist arrival in 2017 of 842,884, an increase of 6.4 per cent from the previous year.<sup>47</sup> Maritime and coastal based tourism is particularly crucial to most SIDS. The United Nations World Tourism Organization estimates that one in every two tourists visits the seaside during their holidays.<sup>48</sup> Maritime and coastal based tourism includes activities such as diving, surfing, cruises (international and national), recreational fishing and eco-tourism. All these sectors have featured prominently in Fiji and will continue to grow in the future with improvements in infrastructure and security in the country.

The prominence of tourism in Fiji's economy is remarkable: its direct and indirect contribution averaged 30 per cent of the country's GDP from 2010 to 2017.<sup>49</sup> In 2016, the sector directly supported 42,500 jobs and total contribution to the job market in the country was around 119,000 jobs (36.6 per cent of total employment).<sup>50</sup> It has surpassed sugar to be the nation's main export earner.<sup>51</sup> Tourism earnings in 2016 were over US\$700 million, and this is projected to grow to US\$1.1 billion in 2021.<sup>52</sup> By 2040, Fiji could potentially be receiving 1,200,000 international visitors each year, creating 57,000 jobs and generating an additional US\$190 million in government revenue. The pristine natural environment, inimitable maritime scenery and efficient air international connectivity make Fiji a highly sought-after destination in the Pacific. A survey conducted by Fiji Tourism found that 75 per



cent of tourists who visit the country participated in swimming at sea as a primary activity during their visit.<sup>53</sup> Over 90 per cent of tourism attractions in Fiji are maritime or coastal based. This highlights the prominence of the maritime environment to tourism and hence Fiji's 'blue economy'.

Most sectors of marine-based tourism continue to show growth. For example, the number of cruise ships that call at Fiji's ports has increased at an average of three cruise liner port calls per week, and the size and ability of vessels to carry more passengers have increased.<sup>54</sup> In 2015, 158,000 tourists visited Fiji by cruise liner, and it is estimated that up to US\$123 million was invested into the country.<sup>55</sup> Some of the organised tours for cruise liner tourists involve trips to inland villagers, which benefit financially from these tours, so marine-based tourism benefits both coastal communities and inland ones. This further emphasises how tourism can play a key role in helping SIDS like Fiji to alleviate poverty and raise their standards of living. As highlighted earlier, Fiji's natural resources and pristine environment draw tourists to the islands. Any degradation of natural resources could force tourists to seek alternative destinations for their holidays. Since tourism is a prominent part of Fiji's economy, a marked reduction in tourist arrivals due to environmental degradation would be detrimental not only to the economy but also to the livelihoods of communities that depend on the sector.

Tourism also has a multiplier effect and supports other industries such as agriculture and transport. The transportation industry is involved in moving tourists between the main arrival hubs and various tourist destinations throughout Fiji. A government survey conducted in 2009 found that 84 per cent of tourists use taxis for transportation, suggesting the size of the economic impact of tourism on the taxi industry.<sup>56</sup> Agriculture is essential for the provision of food to hotels and restaurants. With increasing tourist numbers, the need for supply also increases. Fiji has, however, struggled to meet the demand, resulting in high food imports to sustain the growing tourist numbers.<sup>57</sup> The tourism industry has the potential to provide great opportunities for farmers, noting the country's struggling sugar industry.

Despite the growth in marine and coastal tourism, the sector still faces challenges associated with climate change, natural disasters and pollution. Fiji's adoption of the 'blue economy' concept is timely in dealing with the impacts posed by these challenges. Sustainable tourism would be the core theme for the Fiji Government and associated stakeholders when further developing the tourism sector. In the NDP 17, the government's goal for the tourism industry is for Fiji to be 'A world-class tourism destination that increasingly adds value to the local economy'. A key policy driver to attain this goal is 'mainstream sustainable tourism operations'.<sup>58</sup> Activities to implement the policy include the enforcement of legislation associated with Environment Impact Assessment and building codes that are energy-efficient



and resilient to climate change impacts; sustainable use of water and energy; enhancing waste management and promote recycling; and strengthening biodiversity for sustainable tourism. Fiji's strategic plan for tourism (Fijian Tourism 2021) aims to ensure 'continued sustainable development of the tourism industry'.<sup>59</sup> This aim would be realised through strengthening legislation that protects the environment and marine ecosystems, implementing resilient mechanisms that will deal with impacts of climate change, and promoting collaboration with other stakeholders nationally, regionally and internationally in capacity and capability building on developing frameworks to ensure the tourism sector is sustainable.<sup>60</sup>

### **Maritime security and Fiji's 'blue economy'**

Maritime security and the 'blue economy' are inextricably linked. The 'blue economy' highlights the opportunities provided by the oceans, while maritime security addresses potential dangers and hindrances that undermine ocean opportunities. Maritime security is crucial for setting the conditions for the 'blue economy' to thrive. Dr Christian Beuger, an expert in maritime security governance, argues that 'without a sufficient degree of security, the oceans cannot be developed'.<sup>61</sup> Fisheries, tourism and offshore oil rig platforms require a relatively stable environment that is safe from the criminal activity for the sectors to grow. Ocean monitoring, controlling and surveillance (MCS) activities by law enforcement agencies are crucial to protecting the environment and oceans resources. Moreover, a capable naval force is required to safeguard a nation's sovereignty at sea and ensure uninterrupted sea lines of communications (SLOCS). Maritime security also requires developing a 'blue economy' for it to be well funded and conducted effectively. History has taught us that weak economies cause maritime insecurity: witness the spike in piracy activities in Somalia as a result of coastal communities resorting to maritime crime as a source of livelihood due to a failed economy.<sup>62</sup>

The authors of a 2017 publication of Australia's Sea Power Centre saw maritime security to interact with the 'blue economy' in two main ways:

- As an enabler of the Blue Economy: For example, through safeguarding navigation channels, providing important oceanographic data to marine industries, and managing Illegal Unregulated and Unreported (IUU) fisheries.
- As a sector within the Blue Economy: For example, by stimulating economic activity through shipbuilding, development of surveillance technologies and Defence activities.<sup>63</sup>

As an enabler of the 'blue economy', maritime security encompasses a range of activities. Firstly, safeguarding trade routes and keeping sea lines of communication open, which



involves national activities of guarding national waters and sea lanes and also involving regional and peacekeeping operations and international diplomacy to ensure that trade routes are kept open.<sup>64</sup> The second set of activities encompasses managing ocean resources and sea lanes through law enforcement operations. Such operations would target activities like maritime crime, IUU fishing, people and drug smuggling, and maritime terrorism. This role requires robust MCS tasks. The third major area of activity is gathering and providing oceanographic data to other sectors of the oceans economy, entailing the provision of a hydrographic service or meteorological service. Finally, maritime security also involves the protection and preservation of lives, the environment and the emerging threat posed by climate change. These activities include the conduct and coordination of maritime search and rescue, enforcement against environmental degradation and the critical role of disaster response.

Maritime security can also be a sector of the ‘blue economy’. This is difficult to discern because maritime security is often viewed as the enabler of economic progress. In the Australian context, this role involves the use of the private and public sector in tasks that involve monitoring, controlling and surveillance activities, shipbuilding, defence activities and international diplomacy.<sup>65</sup> Such a role for maritime security may be more relevant to developed and industrialised nations.

### **Maritime security threats**

In Fiji’s context, maritime security is always viewed as an enabler of the ‘blue economy’. There are several threats to maritime security in Fiji’s region that can undermine economic development. The Pacific region is increasingly affected by non-traditional maritime security threats like trafficking of narcotics, persons and illicit goods, illegal fishing, and maritime incidents and disasters.<sup>66</sup> A joint threat assessment on transnational organised crime in the Pacific by the United Nations Office on Drugs and Crime (UNDOC) noted that Pacific Island Countries and Territories (PICTs) are increasingly targeted by organised crime syndicates. The region is prone to illegal activities due to: ‘(a) the geographical location of the PICTs situated between major sources and destinations of illicit commodities; (b) extensive and porous jurisdictional boundaries; and (c) differences in governance and state of law enforcement capacity across numerous PICTs and the region in general’.<sup>67</sup> These factors hinder the ability of maritime law enforcement agencies to detect, monitor, prevent and respond to transnational organised crimes in the region. As a result, maritime security is undermined, affecting sustainable economic development and overall security in the region.<sup>68</sup>

The geography of Pacific Island nations, coupled with limited capability and resources of law enforcement agencies, make them susceptible to the trafficking of drugs and chemical precursors. The region’s location makes it an attractive transit point for drug smuggling, and



there are numerous incidences in the past to support this assertion. Fiji – often referred to as the regional hub in the Pacific – is vulnerable to illicit drug trafficking. Centrally located, and with proximity to New Zealand and Australia, the country has been used in the past and continues to be used as a critical transit point for illicit drug trafficking.<sup>69</sup> In October 2000, 300 kg of heroin were discovered in the country, and in 2004, a joint operation by Fijian authorities and Australian Federal Police resulted in the discovery of an amphetamine factory and precursors of the drug valued at US\$536 million.<sup>70</sup> In 2015, 80 kg of crystal meth were discovered in a shipping container on a ship in Fiji.<sup>71</sup> A joint operation between Fijian, Australian and New Zealand authorities saw the interdiction of a yacht off the coast of Australia in 2017 carrying 1.4 tonnes of cocaine valued at A\$312 million.<sup>72</sup> The yacht was believed to have transited through Fiji from South America. These examples illustrate the existence of drug trafficking within Fiji's region and the use of the country as a transit point, and should be a cause for concern.

The influx of tourists to Fiji in recent years on recreational craft such as yachts and cruise ships potentially increases the risks of drug trafficking in Fiji.<sup>73</sup> Fiji's porous border and the limited law enforcement capacity and capability to detect and respond to such crime further exacerbates those risks. Moreover, the use of Fiji as a transit and staging point for drug trafficking invites criminal elements into the country with potentially detrimental impacts on society. Increased levels of trafficking would put further strain on under-resourced enforcement agencies, creating further issues in other maritime-related tasks like fisheries enforcement. This would undermine Fiji's efforts to enhance its 'blue economy'.

Environmental crime is among the most serious transnational organised crime types affecting the Pacific economies. Since most Pacific Island states rely on natural resources, such as fisheries, for economic development, crimes associated with the pilfering of such resources are a huge concern. Most island states have very large EEZs but lack the capacity and capability to patrol those waters. For example, Kiribati has an EEZ of 3.5 million square km but only one patrol boat to cover this vast area of ocean. Organised crime syndicates take advantage of such vulnerabilities to generate profits through illegal means. A report by the Pacific Islands Fisheries Agency (FFA) on IUU fishing in the Pacific estimated that from 2010 to 2015, around 306,440 tonnes were harvested illegally, with an estimated value of US\$616.11 million.<sup>74</sup> This is a huge loss for many Pacific Island economies and for the many islanders who rely on the fisheries sector for their livelihoods. The increase in 'blue boat' presence in the Pacific targeting highly priced coastal fisheries is also a grave concern. Such boats poach fisheries within the 12-mile zones, and inshore steal fish that the coastal populations use, without any form of control or management. These illegal activities directly affect the livelihood of islanders, and there have been reported apprehension of 'blue boats'



in the Solomon Islands and further south at New Caledonia.<sup>75</sup> Blue boats are of great concern to Fiji due to the increasing proximity of their operations to Fijian waters.

IUU fishing activities have an economic impact that includes lost revenue from the landing fees, licence fees and taxes that legitimate fishing companies pay, and the loss of the value of the illegal catch as income for legal fishing operators. Additionally, such illegal operations contribute to imbalances in the ecosystem and reduced productivity, biodiversity and food security through non-compliance with regulations that mitigate environmental impact. Indirectly, IUU fishing affects related industries through loss of employment opportunities and income. In Fiji, the domestic fishing fleet is estimated to have declined by 75 per cent between 2012 and 2016.<sup>76</sup> It is also assessed that a majority of operational fleets are only able to catch less than 50 per cent of the amount of fish needed for their owners to cover expenses and at least have some profit. IUU fishing and consequent over-exploitation of fish in Fiji waters contribute immensely to these alarming statistics. The threat of IUU fishing to Pacific Island states like Fiji is very clear and, combined with the impacts of climate change, such threats would surely undermine the fisheries sector. Given the value of fisheries resources like tuna and the coastal fishery to the 'blue economy', the need for better management practices and adequately supported enforcement activities is clear.

The Pacific has also seen weapon smuggling, human smuggling and trafficking and the trafficking of counterfeit goods at sea. There are insufficient data and research to quantify the extent and impact of weapon smuggling, however, research shows the existence of people smuggling and trafficking.<sup>77</sup> A report by the Pacific Immigration Directors Conference (PIDC) indicated that Fiji is a preferred transit point for people smuggling and trafficking.<sup>78</sup> The use of the maritime route to conduct people trafficking cannot be discounted, noting the increase in maritime activity in Fiji. The link between people trafficking and the 'blue economy' is vague. However, one of the areas in which this can impact is the labour force in the fishing industry brought about by the exploitation of fisherman from Asian countries such as China, Vietnam Indonesia and some Pacific Island countries to work in fishing fleets.<sup>79</sup> These individuals are often subject to physical and psychological abuse, and poor living and working conditions.<sup>80</sup> Furthermore, the use of such a labour force results in loss of revenue such as working visa permits and also has an impact on the local labour market. The figures of reported trafficking or smuggling into, around and through the Pacific are only a fraction of what happens around the world. However, given the severity of the crimes, the size of Pacific Island populations, and the wider social and economic effects of organised crime, it should be an issue of significant concern for the region.

An aspect of maritime security that is required for the 'blue economy' to thrive is maritime safety. This aims to address the safety of ships and mariners and the ecosystem. Essential



activities include conducting search and rescue missions, responding to disasters and carrying out hydrographic surveys. Since 2016, Fiji has received over 280 port visits by cruise liners, averaging three visits per week. This increase in visits also increases maritime risks. The incident involving the cruise liner *Costa Concordia* in Italy, in 2012, illustrates that maritime accidents still do occur, despite advances in navigational systems on board modern ships and safe navigation practices. Given the multitude of uncharted reefs around the islands, one cannot discount the possibility of a major cruise liner incident occurring in Fijian waters. Fiji should, therefore, invest in capacity and capability to ensure that it can respond if a major maritime incident occurs.

As maritime traffic increases, Fiji would be required to provide essential safety information for maritime seafarers, and supplying updated charts and navigational information through the Fiji Hydrographic services is essential. Reliable, high-quality and up-to-date nautical charts are essential for the 'blue economy' as well as for safety. The increase in maritime traffic, larger ships, ship schedules and shipping companies seeking shorter and more direct trade routes put a lot of pressure on hydrographic services.<sup>81</sup> Failure to provide reliable information to maritime traffic could incur severe environmental and economic impacts.

Climate change represents a clear and profound threat to Fiji's 'blue economy'. It also poses a threat to maritime security. Climate change has often been described as a threat multiplier because it exacerbates existing maritime threats. An assessment by the Global Military Advisory Council on Climate change noted that climate change, will 'amplify existing vulnerabilities among populations and existing threats to security, and can indirectly increase risks of violent conflict'.<sup>82</sup> The report also noted that the most compelling issue would be the displacement of the population due to extreme weather or sea-level rise, the spread of infectious disease, and lack of food and water.<sup>83</sup> The need to provide humanitarian assistance would increase. The greater intensity of natural disasters, resulting in a higher death rate and destruction of critical infrastructure, coupled with an epidemic/pandemic disease outbreak would affect human security. The impact of category 5 tropical cyclone Winston in Fiji in 2016 underpinned the need to have a capable and efficient disaster response framework and independent response capability. Winston killed 44 people, affected the livelihoods of 62 per cent of Fiji's population, and inflicted damage and loss in the order of US\$900 million, almost 20 per cent of Fiji's GDP.<sup>84</sup> Several outlying islands were severely affected by cyclone Winston, stretching the resources and capability of Fiji to respond independently. Assistance from international donors, particularly Australia and New Zealand, allowed Fiji to provide a timely response and mitigate the impact of the cyclone. Fiji already has a small economic base to eradicate poverty and provide livelihoods for its people. Extreme weather events as a result of climate change would certainly weaken the nation's capacity to provide



for its population, thus undermining security as the populace seek alternative ways of making a living, some of which may be illegal, such as IUU fishing and drug trafficking.

Rising sea levels caused by climate change will also affect territorial limits, affecting the maritime jurisdiction of coastal states. A rise in sea levels leads to the retreat inland of the low water line, which affects the normal baseline from which maritime boundaries are normally based. Sea level rise, coupled with coastal erosion as a result of storm surges, could affect baselines.<sup>85</sup> Maritime claims by low-lying atolls like Kiribati and Tuvalu in the Pacific could potentially be under threat from this phenomenon. As such, claims to living and non-living resources of the oceans could be challenged and potentially be a source of conflict. We are already observing maritime disputes borne out of maritime claims, as seen in the Spratly Islands in the South China Sea. This affects not only the states involved in the disputes but also countries like Fiji and Australia which rely on uninterrupted trade routes through the South China Sea. Consequently, coastal states like Fiji, with a desire to enhance their 'blue economy', will be greatly hindered by such maritime disputes. It is therefore crucial that issues relating to climate change impacts on maritime jurisdiction feature in regional and international discussions and forums so that adaptive and mitigating measures can be discussed amicably.

Notwithstanding the prevalence of non-traditional maritime threats to Fiji's 'blue economy', Fiji should also be concerned about more traditional maritime threats, particularly belligerent activities that disturb its trade routes. Up to 96 per cent of Fiji's trade by volume is conducted by sea, so it is crucial for the country that SLOCs are kept open and uninterrupted.

Furthermore, Fiji is a strategic transshipment hub for other Pacific Island states like Tuvalu, Kiribati, Tonga and Samoa, highlighting the nation's importance to the region.<sup>86</sup> Fiji's seaborne trade with Asia and Europe and the world in general normally transits through New Zealand, Australia and New Caledonia, therefore if SLOCs for the aforementioned nations are interrupted Fiji will feel the impact and so will the other Pacific Island states.<sup>87</sup> It is very much in Fiji's interests to continue to foster amicable maritime security relationships with Australia, New Zealand and France.

### **Fiji Navy's role in Fiji's 'blue economy'**

The Republic of Fiji Navy (RFN) plays a critical role in Fiji's 'blue economy' through its role in maritime security. The RFN was established in 1975 in anticipation of the introduction of UNCLOS in 1982, and Fiji was one of the first countries to ratify the convention. Ocean monitoring, surveillance and law enforcement, coordination and conduct of maritime search and rescue, hydrographic survey and vessel reporting are all crucial for the 'blue economy' to flourish. The RFN has been conducting these activities since its establishment, albeit with restricted resources and gaps in legislation.



Patrol boats are the RFN's sole assets for conducting a wide variety of tasks. These vessels fall short of undertaking the traditional role of navies – defending a nation from an adversary – but they have been vital in dealing with non-traditional maritime security threats. The first patrol boats were ex-World War II minesweepers acquired from the United States in 1975–76, followed by two 'L' Class patrol boats in 1988, which were previously utilised as oil rig tenders in the United States. In 1991, Fiji acquired four Dabur Class patrol boats from Israel, which were small fast patrol crafts but were not conducive to Fiji maritime conditions. In 1994–95, Australia gifted three PPB Class patrol boats to Fiji through the Defence Cooperation Programme, which led to the decommissioning of the minesweepers and the Dabur Class patrol boats. Fiji's current fleet is made up of two PPBs from Australia and two L Class patrol boats, the latter undergoing survey to verify their operational capability and the viability of keeping them in service.<sup>88</sup> With this small fleet of patrol boats and 300 personnel, the RFN has been challenged in safeguarding Fiji's maritime security and addressing maritime security challenges.

The RFN has been actively engaged in conducting constabulary tasks like fisheries enforcement, border enforcement patrols, and detection and responding to transnational crime. Maritime safety has also been a core role of the RFN. The Fiji Maritime Surveillance Rescue Coordination Centre is embedded within the RFN, and the patrol boats are used in maritime search-and-rescue (SAR) incidents. The role of providing critical information on nautical charting and updating navigational information rests with the RFN's hydrographic services. This is a crucial role when considering maritime trade and the increase in cruise liners and yachts visiting the country. Furthermore, the RFN also acquired the role of manning Fiji's coast radio station in 2010 (Suva radio 3DP), which broadcasts maritime safety information to vessels within Fiji waters. The radio station also manages a reporting system of vessels entering Fiji territorial waters, although this is not a mandatory service. As an island nation, responding to natural disaster would normally mean traversing by sea. The RFN has conducted this role in the past and with the projected frequency of extreme weather events due to climate change, such duties are likely to become more prominent.

The Fiji Government's adoption of the 'blue economy' concept amplifies the crucial role played by the RFN in maritime security in enabling the economy to thrive. Maritime security should be a vital component of national security in this maritime nation. In the fisheries sector, the conduct of maritime surveillance and patrol to safeguard fisheries resources against IUU fishing activities has become increasingly important. The upgrade of Fiji's maritime surveillance centre in 2017 was a worthwhile investment. The investment in technology like satellite Automatic Identification System (AIS) monitoring and Vessel Monitoring System (VMS) provide the RFN with almost real-time information about activities occurring in Fiji's maritime domain. The upgrade was surely a force multiplier and



a cost-effective measure in maritime surveillance, considering that in 2017 the RFN had only one operational patrol boat. Since the upgrade of the surveillance system, the *modus operandi* of conducting patrols was revised to a more targeted intelligence-based approach. The outcome of these patrols has been more effective than before, with increased boardings and detection of infringements.<sup>89</sup>

Given the possible impact of climate change on fisheries, coastal fisheries enforcement should be given equal precedence to offshore fisheries enforcement. A study into Monitoring, Control and Surveillance (MCS) activities of inshore fisheries in 2017 highlighted a huge gap in the conduct of MCS activities of inshore fisheries. The report stressed ‘the weak state of the Fisheries Department’s inshore MCS compared to that for offshore fisheries’.<sup>90</sup> Despite numerous infringements detected in inshore fisheries, there has been no successful prosecution since 2012.<sup>91</sup> Yet, coastal fisheries will be heavily affected by climate change, potentially undermining food security for coastal communities. Lack of effective MCS activities would further exacerbate challenges and add stress to coastal fisheries. The RFN readjusted its surveillance approaches, ensuring that adequate attention is also placed on coastal fisheries enforcement.

The RFN assists the maritime transport and trade sector by ensuring maritime safety. its hydrographic service provides up-to-date and accurate information about maritime routes and ports. This role is particularly vital given the government’s desire to increase the number of international ports of entry in the country, including the outlying island of Rotuma in the north of Fiji; these ports need to be properly surveyed and nautical charts updated. Timely hydrographic surveys are also important because of changes to ports and facilities brought about by sea level rise and coastal degradation and sedimentation. For example, in 2014 a cruise liner ran aground at Lautoka port as it manoeuvred out of its berth. While human error was assessed as the main contributing factor, the need for an extensive survey of the shallow harbour was also highlighted during the investigation.<sup>92</sup>

The RFN also coordinates and conducts maritime SAR. Fiji is bound by international treaty to provide a search and rescue service to seafarers that enter Fiji’s SAR area of responsibility. The recent increase in maritime traffic in Fiji means that maritime incidents and accidents are more likely. For example, in the past five years, the Fiji Maritime Surveillance Rescue Coordination Centre has responded to 12 incidents of yachts in distress within Fijian waters.<sup>93</sup> This was in comparison to an average of two per year over the previous decade.<sup>94</sup> All those incidents require some form of asset deployment and response from the RFN, with most incidents occurring more than 100 nautical miles away from the main island and during adverse weather conditions.

### **Recommendations for the RFN**



The RFN's role in Fiji's maritime security is critical for the 'blue economy' to thrive. Increased opportunities in the sector come with increased threats and challenges. The RFN is constrained in effectively contributing to the 'blue economy' due to restrictions on funding, insufficient legislative powers and limited capability.<sup>95</sup> Given the threats to maritime security highlighted above, the RFN must be better resourced, legislated and supported to carry out its critical role. The following recommendations should be adopted to place the RFN in a better position to deal with maritime security issues.

The RFN's role can only be enhanced if it is well governed by effective and clear legislation, well resourced and adheres to a coherent strategy. The role of the RFN in conducting constabulary duties of maritime law enforcement duties needs to be clearly defined in the relevant legislation. RFN roles have often been vague and require yearly government gazettes to allow officers in the RFN to conduct this critical role. Currently, the RFN uses the *Fisheries, Customs, Immigration, and Marine Act* to carry out its role, however, its enforcement powers under the Act are vague. Furthermore, the process of empowering naval officers with enforcement powers is long and cumbersome. Creation and implementation of a comprehensive maritime law enforcement legislation that would encompass the wide range of roles of the RFN would certainly enhance the effectiveness of naval officers in conducting their role. Fiji is in the process of developing its first-ever maritime strategy and it is envisaged that the role of the RFN will feature strongly in the strategic document.

The RFN needs to step up its engagement with other maritime enforcement stakeholders in the country. These stakeholders include the Ministry of Fisheries, Police Transnational Crime Unit, Police Maritime Unit, Fiji Revenue and Customs Services, Biosecurity of Fiji, Ministry of Environment, Maritime Safety Authority of Fiji and Department of Immigration. Exchange of information and intelligence is crucial in dealing with maritime security issues. In the past, these organisations have often worked in isolation without collaboration and such an approach 'can lead to disconnected decisions, inefficient resource use, and missed opportunities'.<sup>96</sup> Noting the secure and sensitive nature of some of the intelligence by individual sectors, priority should be given to developing systems that allow such information to be shared and revising legal frameworks to incorporate data security measures. A cross-sectoral and interagency approach is a more efficient and effective way to deal with issues. There have been some successful outcomes of interagency coordination in the region, such as the New Zealand framework which established a National Maritime Coordination Centre in 2003.<sup>97</sup> The centre was aimed at integrating the work of all agencies and developing a single national strategy in dealing with maritime risks. Through interagency coordination, results and outcome were more favourable, especially given the financial constraints of individual agencies.<sup>98</sup> Fiji should explore adopting a similar approach when dealing with a wide array of maritime security challenges.



The RFN should develop ways of dealing with risks and challenges associated with the increasing number of visits by cruise liners and recreational craft. The RFN's capacity and capability to respond to a major SAR incident are limited, therefore the RFN should explore and practise ways of addressing major incidents. Fiji's SAR legislation has not been tabled in parliament and the RFN should lobby government to expedite its implementation. This legislation should provide a framework for dealing with major incidents, although the RFN will be heavily constrained because of the small number and size of response assets. It would be prudent for the RFN to develop an MOU with local shipping providers in the country and the Government Shipping Services and set out ways in which these entities could respond during a major SAR incident.

Given the importance to the 'blue economy' of safeguarding the health of the oceans, it is crucial that the RFN play a more proactive role in enforcing environmental legislation. The RFN should develop a closer working relationship with the Ministry of Environment and the Maritime Safety Authority of Fiji and explore ways in which the RFN can assist in marine environment protection and law enforcement. So far the work of the RFN has been limited in this sector. Adoption of a sea riders program, similar to that provided to the Ministry of Fisheries, could also be extended to environment officials. Moreover, RFN personnel should undergo training in environmental protection enforcement in a similar way that they train with Immigration and Fisheries.

The Fiji Navy Hydrographic Services should continue to enhance its capability but importantly deliver essential and updated charting information to seafarers promptly. Up-to-date charts of outlying islands are important if cruise line tourism is to expand to more ports of call. To perform its job, the hydrographic service must be adequately resourced and funded. The RFN should continue to engage international development partners to improve their hydrographic services.

The coastal radio station currently manned by RFN personnel lacks an effective communication system. The station has the potential to be developed to provide other services. It has so far broadcasted MSI to ships, however, the system can be used to implement the compulsory reporting system for vessels entering Fijian waters. This would be beneficial for both on maritime security and safety perspectives. Such an undertaking will complement the AIS currently in place and be a back-up should the AIS fail.

The difficulty of communications between Fiji Naval HQ and platforms at sea continues to be a major hindrance in maritime security operations, and it is strongly recommended that RFN ships be fitted with communication systems that can receive and send data. Such systems can effectively improve surface patrols. The RFN will still need to enhance its surveillance capability to detect and respond to maritime security threats on time. The creation of a fusion



centre that has the ability ‘to share and integrate intelligence and navigation systems into a common operating picture to position decision-makers to prepare for, prevent, respond to and recover from a broad spectrum of potential maritime-related threats’ will certainly enhance the capability of the RFN.<sup>99</sup>

As in most Pacific Island countries, the RFN is under-resourced to carry out its strategic role. For example, in 2017, the RFN received an annual operational budget of US\$2.3million.<sup>100</sup> This is to finance logistics, training, repairs and capital purchases for the RFN. Noting RFN’s critical role in Fiji’s ‘blue economy’, this amount is insufficient. Without additional resources, the RFN will still be hamstrung in conducting its role effectively. As a critical ‘enabler’ for the ‘blue economy’, the RFN requires more thought and consideration by government. More resources will make it possible for the RFN to invest in capabilities that allow it to be more effective. Investment in innovative technology (AIS and VMS) at the Maritime Surveillance Centre in 2017 was a force multiplier. It improved Maritime Domain Awareness for the RFN, but the RFN still lacks capable response assets.

The best deterrent at sea is presence, and the RFN should acquire the necessary assets to be able to respond and deter potential miscreants.<sup>101</sup> Ships provided by Australia, under the PMSP program, will surely enhance Fiji’s capability, but the RFN would still require additional ships to effectively conduct other roles, such as disaster response. The RFN was severely constrained in responding to outlying islands following Cyclone Winston in 2016 due to limited capability. This shortfall prompted a revised approach in capability development as depicted in the Republic of Fiji Military Forces Command 2018 strategic intent. The intent highlighted the need for the RFMF to respond independently to disasters and ‘not to be dependent on any other organisations to conduct an operation in Fiji’.<sup>102</sup> With the existing assets, the RFN will not be able to achieve the desired result, thus the need to invest in capabilities that allow the RFN to respond effectively. Investment in a multi-role vessel that can be used for a variety of tasks, like SAR, survey, landing operations and disaster relief operations, would enable an RFMF independent response effort.

Given the importance of maritime security to the ‘blue economy’, it would be sensible that more consideration and attention is placed on maritime security efforts. Moreover, the RFN and enforcement agencies should also be engaged in the ‘blue economy’ planning process, and maritime security should be included in marine spatial planning activities.

## Conclusion

Although Fiji’s oceans economy is crucial to Fiji’s economy, its progress and sustainable development are threatened by climate change and maritime security challenges. Adopting the concept of ‘blue’ in Fiji’s oceans economy to promote conservation and sustaining the



Oceans with economic development is fundamental to Fiji's economic future. The tourism, fisheries and maritime transport sectors have developed into key contributors to Fiji's Gross Domestic Product, a contribution that is expected to increase. Conserving the natural environment is key to ensuring the sectors' sustainable growth. Fiji's National Development Plan 2017 outlines key policies to ensure sustainable growth.

Maritime security is an important enabler of Fiji's 'blue economy', and must be well supported if the economy is to thrive. An increase in maritime economic activities means an increase in risks and challenges. Fiji, like other small nations in the Pacific region, is vulnerable to maritime security threats and challenges that have the potential to undermine economic progress. As the custodian of maritime security, the RFN has been constrained in conducting its role due to limited capability and restricted resources. Furthermore, lack of engagement with other maritime security stakeholders within the country has exacerbated problems with enforcement efforts. It is crucial that the RFN is better resourced and supported in its role of enabling Fiji's 'blue economy'.

### Endnotes

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<sup>1</sup> Fiji Bureau of statistics, 'Key Economic statistics,' <http://www.statsfiji.gov.fj/latest-releases/key-stats>, accessed 25 February 2018.

<sup>2</sup> OECD, *The Ocean Economy in 2030*, OECD Publishing, Paris, 2016, <http://dx.doi.org/10.1787/9789264251724-en>, p. 14.

<sup>3</sup> Commonwealth Secretariat, 'The Blue Economy and Small States,' *Commonwealth Blue Economy Series, No 1*, Commonwealth Secretariat, London, 2016, p. 3.

<sup>4</sup> United Nations Conference on Trade and Development, *The Oceans Economy: Opportunities and Challenges for Small Island Developing States*, United Nations Publication, New York, 2014, p. 2.

<sup>5</sup> UNCATD, *The Oceans Economy: Opportunities and Challenges for Small Island Developing States*, p. 2.

<sup>6</sup> UNCTAD 'The Oceans Economy: Opportunities and Challenges for Small Island Developing States' p. 1.

<sup>7</sup> World Bank and United Nations Department of Economic and Social Affairs. *The Potential of the Blue Economy: Increasing Long-term Benefits of the Sustainable Use of Marine Resources for Small Island Developing States and Coastal Least Developed Countries*, World Bank, Washington DC, 2017, p. 4.



---

<sup>8</sup> Commonwealth Secretariat. 'The Blue Economy and Small States,' *Commonwealth Blue Economy Series, No 1*.

<sup>9</sup> The Economist Intelligence Unit, 'The Blue Economy: Growth, Opportunity and a Sustainable Ocean Economy', The Economist Group, London, 2015, p. 10.

<sup>10</sup> Vierros, M., Tawake, A., Hickey, F., Tiraa, A., and Noa, R., *Traditional Marine Management Areas of the Pacific in the Context of National and International Law and Policy* (Darwin, Australia: United Nations University – Traditional Knowledge Initiative, 2010).

<sup>11</sup> World Bank and United Nations Department of Economic and Social Affairs, *The Potential of the Blue Economy: Increasing Long-term Benefits of the Sustainable Use of Marine Resources for Small Island Developing States and Coastal least Developed Countries*, World Bank, Washington, 2017, p. 5.

<sup>12</sup> Ministry of Strategic Planning, National Development & Statistics, Republic of Fiji, 'A Green Growth Framework for Fiji,' Fiji Government, Suva, 2014.

<sup>13</sup> Frank Bainimarama, Speech at the Blue Economy conference, 2017.

<sup>14</sup> World Bank and UNDESA, *The Potential of the Blue Economy*, p vii.

<sup>15</sup> FAO, 'The State of World Fisheries and Aquaculture 2016. Contributing to Food Security and Nutrition for All,' Rome, FAO, 2016, p. 4.

<sup>16</sup> UNCTAD, *The Oceans Economy: Opportunity and challenges for Small Island Developing States*, p 3.

<sup>17</sup> UNCTAD, *The Oceans Economy: Opportunity and challenges for Small Island Developing States*, p 7

<sup>18</sup> Fiji Bureau of Statistics, 'Key Economic statistics', 25 February 2015, <http://www.statsfiji.gov.fj/latest-releases/key-stats>.

<sup>19</sup> California Environmental Associates, 'Fiji Fisheries: 2015 Review, Prepared for Lucile Packard Foundation,' 2016, p. 26.

<sup>20</sup> <http://russgeorge.net/2016/04/16/fijian-ocean-pastures-troubled-waters/>.

<sup>21</sup> California Environmental Associates, 'Fiji Fisheries: 2015 Review', p. 22.

<sup>22</sup> Fiji Government, 'Current Status of Ocean Resources and Biodiversity', in *A Green Growth Framework for Fiji*, 2014, Fiji, p. 47.

<sup>23</sup> California Environmental Associates, 'Fiji Fisheries: 2015 Review', p. 20.

<sup>24</sup> Gillet, Robert, Lewis, Anthony, and Cartwright, Ian, 'Coastal Fisheries in Fiji: Resources, Issues and Enhancing Role of the Fisheries Department,' David and Lucille Packard Foundation, 2015, p. 14.

<sup>25</sup> Gillet et al, Review of Coastal Fisheries, 'Coastal Fisheries in Fiji: Resources, Issues and Enhancing Role of the Fisheries Department,' p. 15.



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- <sup>26</sup> Ministry of Economy, Republic of Fiji, *National Development Plan: Transforming Fiji*, Suva, 2017, p. 113.
- <sup>27</sup> Ministry of Economy, Republic of Fiji, *National Development Plan: Transforming Fiji*, p. 114.
- <sup>28</sup> Ministry of Economy, Republic of Fiji, *National Development Plan: Transforming Fiji*, p. 114.
- <sup>29</sup> Voyer, Michelle, Quirk, Genevieve, McIlgorm, Alistair, Azmi, Kamal, Kaye, Stuart, and McArthur, Michael, 'The Blue Economy in Australia: Conceptualising the Blue Economy, its Relationship with Maritime Security, and its Role in Australian Oceans Governance,' Sea Power Centre, Australia, 2017, p. vii.
- <sup>30</sup> Commonwealth Secretariat, 'The Blue Economy and Small States,' *Commonwealth Blue Economy Series*, No 1, p. 26.
- <sup>31</sup> Commonwealth Secretariat, 'The Blue Economy and Small States,' p. 26.
- <sup>32</sup> Asian Development Bank, 'Small-scale Policy and Advisory Technical Assistance: Ports Development Master Plan in Fiji,' <https://www.adb.org/projects/32525-013/main#project-overview>, accessed 3 March 2018.
- <sup>33</sup> Fiji Bureau of Statistics, 'Key Economic Statistics', <http://www.statsfiji.gov.fj/latest-releases/key-stats>, accessed 25 February 2018.
- <sup>34</sup> Tarte, Sandra, 'Fiji Islands: Security Challenges and Defence Policy Issues,' Asia Pacific Countries Security Outlook and Implications for the Defence Sector, National Institute for Defence Studies Joint Research Series No. 5, Tokyo, 2010, p. 67.
- <sup>35</sup> Asian Development Bank, 'Small-scale Policy and Advisory Technical Assistance: Ports Development Master Plan in Fiji.'
- <sup>36</sup> Ministry of Economy, Republic of Fiji, *National Development Plan: Transforming Fiji*.
- <sup>37</sup> Fiji Ports Corporation Limited, Annual Report, 2015, Suva, p. 46.
- <sup>38</sup> Fiji Ports Corporation Limited, Annual Report, 2015, Suva, p. 5.
- <sup>39</sup> Secretariat of the Pacific Regional Environment Programme (SPREP) and Maritime New Zealand, 'Maritime Pollution Assessment for Fiji – 2015,' p. 28.
- <sup>40</sup> UNCTAD, 'The Oceans Economy: Opportunity and Challenges for Small Island Developing States,' p. 3.
- <sup>41</sup> UNCTAD, 'The Oceans Economy: Opportunity and Challenges for Small Island Developing States,' p. 3.
- <sup>42</sup> Ministry of Economy, Republic of Fiji, *National Development Plan: Transforming Fiji*, Suva, 2017, p. 85.
- <sup>43</sup> Ministry of Economy, Republic of Fiji, *National Development Plan: Transforming Fiji*, Suva, 2017, p. 85.
- <sup>44</sup> World Bank and United Nations Department of Economic and Social Affairs, 'The Potential of the Blue Economy: Increasing Long-term Benefits of the Sustainable Use of Marine Resources for Small Island Developing States and Coastal least Developed Countries,' 2017, p. 16.



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<sup>45</sup> World Bank and United Nations Department of Economic and Social Affairs, 'The Potential of the Blue Economy,' 2017, p. 4.

<sup>46</sup> World Bank and United Nations Department of Economic and Social Affairs, 'The Potential of the Blue Economy,' 2017, p. 4.

<sup>47</sup> Fiji Bureau of Statistics, 'Key Economic Statistics', 1 March 2018, <http://www.statsfiji.gov.fj/latest-releases/key-stats>.

<sup>48</sup> UNWTO, 'Sustainable Marine Tourism,' presented to Experts Group meetings on Oceans, Seas and Sustainable Development: Implementation Follow-up to Rio + 20 New York, April 2013 (no. 53 on UNCATD).

<sup>49</sup> Reserve Bank of Fiji, Assessment Report on Tourism 2017, <https://www.rbf.gov.fj/getattachment/931dd956-847e-4845-b76e-cf660cc3d382/Tourism-Industry-150717.pdf?lang=en-US>, accessed 18 March 2018.

<sup>50</sup> World Travel Tourism Council, Travel and Tourism: Economic Impact 2018 Fiji, <https://www.wttc.org/-/media/files/reports/economic-impact-research/countries-2018/fiji2018.pdf>, accessed 6 April 2018.

<sup>51</sup> World Bank, 'Pacific Possible – Tourism,' <http://pubdocs.worldbank.org/en/95491462763645997/WB-PP-Tourism.pdf>, p. 4, accessed 20 March 2018.

<sup>52</sup> Ministry of Economy, Republic of Fiji, *National Development Plan: Transforming Fiji*, p. 122.

<sup>53</sup> Verdone, Michael, and Seidl, Andrew, 'Fishing and Tourism in the Fijian Economy,' IUCN Gland, Switzerland, 2012, p. 14.

<sup>54</sup> Fiji Ports Corporation Limited, Cruise Schedules for 2016, 2017, 2018 – supplied by Bradley Bower, Operations Manager, Transam Shipping, Fiji.

<sup>55</sup> Fiji Ports Corporation Limited, Annual Report 2015, p. 5.

<sup>56</sup> Verdone and Seidl, 'Fishing and Tourism in the Fijian Economy,' 2012, p. 13.

<sup>57</sup> Brussels Briefings, 'Linking Agriculture and Tourism in Fiji,' <https://brusselsbriefings.net/2018/02/22/linking-agriculture-and-tourism-in-fiji/>, accessed 10 March 2018.

<sup>58</sup> Ministry of Economy, Republic of Fiji, *National Development Plan: Transforming Fiji*, p. 124.

<sup>59</sup> Ministry of Industry, Trade and Tourism, 'Fijian Tourism 2021: Fiji Tourism Plan 2017–2021,' 16 February 2017, <https://fhta.com.fj/wp-content/uploads/2017/02/Fijian-Tourism-2021.pdf>, accessed 17 March 2018.

<sup>60</sup> Ministry of Industry, Trade and Tourism, 'Fijian Tourism 2021'

<sup>61</sup> Bueger, Christian, 'Maritime Security and the Blue Economy: Understanding the Link,' West African Security Network, 17 March 2016, <http://www.westafricasecuritynetwork.org/?p=575>, accessed 5 February 2018.

<sup>62</sup> Bueger, 'Maritime Security and the Blue Economy: Understanding the Link.'



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<sup>63</sup> Voyer et al., 'The Blue Economy in Australia,' 2017, p. 23.

<sup>64</sup> Voyer et al., 'The Blue Economy in Australia,' 2017, p. 24.

<sup>65</sup> Voyer et al., 'The Blue Economy in Australia,' 2017, p. 24

<sup>66</sup> United Nations Office on Drugs And Crime, 'Transnational Organized Crime in the Pacific – A threat Assessment,' UNDOC, 2016, p. iii.

<sup>67</sup> United Nations Office on Drugs And Crime, 'Transnational Organized Crime in the Pacific,' 2016, p. iii.

<sup>68</sup> United Nations Office on Drugs And Crime, 'Transnational Organized Crime in the Pacific,' 2016, p. iii.

<sup>69</sup> United Nations Office on Drugs And Crime, 'Transnational Organized Crime in the Pacific,' 2016, p. iii.

<sup>70</sup> Holguin, James, 'Huge Meth Lab busted in Fiji,' CBS News, 9 June 2004, <https://www.cbsnews.com/news/huge-meth-lab-busted-in-fiji/>, accessed 10 March 2018.

<sup>71</sup> Vuibau, Tevita, '\$100m drug Bust,' *Fiji Times* <http://www.fijitimes.com/story.aspx?id=317087>, accessed 10 March 2018.

<sup>72</sup> Olding, Rachel, '1.4 Tonnes of Cocaine Seized, Six Arrested as NZ Yacht Intercepted Mid-ocean: Police,' *Sydney Morning Herald*, 6 February 2017, <https://www.smh.com.au/national/nsw/14-tonnes-of-cocaine-seized-six-arrested-as-nz-yacht-intercepted-midocean-police-20170206-gu66s4.html>, accessed 6 March 2018.

<sup>73</sup> United Nations Office on Drugs And Crime, 'Transnational Organised Crime in the Pacific – A threat Assessment,' p 28.

<sup>74</sup> MRAG Asia Pacific, 'Towards the Quantification of Illegal, Unreported and Unregulated (IUU) Fishing in the Pacific Islands Region,' 2016, p i.

<sup>75</sup> Radio New Zealand, 'French Navy Intercepts Two More Blue Boats,' *RNZ*, December 2017, <https://www.radionz.co.nz/international/pacific-news/345143/french-navy-intercepts-two-more-blue-boats>, 18 February 2018.

<sup>76</sup> George, Russ, 'Fiji Oceans Pastures in Troubled Waters,' <http://russgeorge.net/2016/04/16/fijian-ocean-pastures-troubled-waters/>, accessed 18 April 2018.

<sup>77</sup> United Nations Office on Drugs And Crime, 'Transnational Organised Crime in the Pacific – A threat Assessment,' p 36.

<sup>78</sup> United Nations Office on Drugs And Crime, 'Transnational Organised Crime in the Pacific – A threat Assessment,' p 35.

<sup>79</sup> United Nations Office on Drugs And Crime, 'Transnational Organised Crime in the Pacific – A threat Assessment,' p. 38.



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<sup>80</sup> United Nations Office on Drugs And Crime, 'Transnational Organised Crime in the Pacific – A threat Assessment,' p. 38.

<sup>81</sup> Daetz, Jeny, 'The Importance of the Australian Hydrographic Service to Seaborne Trade', in Andrew Forbes (ed.), *The Naval Contribution to National Security and Prosperity* (Canberra: Sea Power Centre, Australia, 2013), p 75.

<sup>82</sup> King, Wendell Christopher, *Climate Change: Implications for defence, Key findings from the Intergovernmental Panel on Climate Change Fifth Assessment report*, Global Military Advisory Council on Climate Change, UK, 2014, p. 4.

<sup>78</sup> King, Wendell Christopher, *Climate Change: Implications for defence, Key findings from the Intergovernmental Panel on Climate Change Fifth Assessment report*, p 7.

<sup>84</sup> Fiji Government, Report of Cyclone Winston.

<sup>85</sup> Schofield, C., 'Holding Back the Waves? Sea Level Rise and Maritime Claims', in O.C. Ruppel, C. Roschmann and K. Ruppel Schlichting (eds), *Climate Change: International Law and Global Governance: Legal Responses and Global Responsibility* Vol.1 (2013), pp. 593–614, <http://ro.uow.edu.au/cgi/viewcontent.cgi?article=2239&context=lhapapers>, accessed 18 February 2018.

<sup>86</sup> Investment Fiji <http://www.investmentfiji.org.fj/pages.cfm/for-investors/key-infrastructure-services/shipping.html>.

<sup>87</sup> Neptune Shipping <file:///C:/Users/tim3n/Downloads/SEA-to-Fiji-2nd-April.pdf>, accessed 12 April 2018.

<sup>88</sup> The third PPB RFNS *Kiro*, ran aground in 2016 and is out of service indefinitely.

<sup>89</sup> RFNS *Kula* Patrol, 30 boardings in January 2018, compared to average of 3 to 5 boardings per patrol.

<sup>90</sup> Gillet, R., Southen, P., and Freeman, I., *A Brief Review of Monitoring, Control and Surveillance in Fiji's Inshore Fisheries*, David and Lucile Packard Foundation, New Zealand, 2017, p. 1.

<sup>91</sup> Gillet, Southen and Freeman, *A Brief Review of Monitoring, Control and Surveillance in Fiji's Inshore Fisheries*, p. 3

<sup>92</sup> Maritime Safety Authority of Fiji, Preliminary Investigation Cruise Liner Grounding Lautoka, <https://msaf.com.fj/2017/08/28/preliminary-investigation-summary-for-webpage/>, accessed 20 March 2018.

<sup>93</sup> Fiji Maritime Rescue and Surveillance Coordination Centre Data, Fiji 2018.

<sup>94</sup> Fiji Maritime Rescue and Surveillance Coordination Centre Data, Fiji 2018.

<sup>95</sup> Tarte, Sandra, 'Fiji Islands: Security Challenges and Defence Policy issues', Asia Pacific Countries Security Outlook and Implications for the Defence Sector, National Institute for Defence Studies Joint Research Series No. 5, Tokyo, 2010, pp.67–84.



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<sup>96</sup> World Bank and UNDESA, *The Potential of the Blue Economy: Increasing Long-term Benefits of the Sustainable Use of Marine Resources for Small Island Developing States and Coastal Least Developed Countries*, p 24.

<sup>97</sup> Dunne, Martyn, 'Interagency Arrangements in New Zealand', in Andrew Forbes (ed.), *The Naval Contribution to National Security and Prosperity* (Canberra: Sea Power Centre, Australia, 2013), p. 119.

<sup>98</sup> Martyn Dunne, 'Interagency Arrangements in New Zealand', in Andrew Forbes (ed), *The Naval Contribution to National Security and Prosperity* (Canberra: Sea Power Centre, Australia, 2013), p. 123.

<sup>99</sup> Commonwealth Secretariat 'The Blue Economy and Small States,' *Commonwealth Blue Economy Series, No 1*, p. 26.

<sup>100</sup> Ministry of Economy Fiji, Budget estimates tabled to Parliament, 2016, <http://www.fiji.gov.fj/getattachment/944500a8-490a-41b3-802c-372783f0fdc1/2016-NATIONAL-BUDGET---ESTIMATES.aspx>, accessed 23 March 2018.

<sup>101</sup> Friedman, Norman, 'Maintaining Good Order at Sea', in Andrew Forbes (ed), *The Naval Contribution to National Security and Prosperity* (Canberra: Sea Power Centre, Australia, 2013), p. 226.

<sup>102</sup> Naupoto, Viliame (Rear Admiral), '2018 Republic Of Fiji Military Forces Command Intent,' RFMF, Suva, 2018, p. 6.