

Climate Security and the Pacific Island States

J. Scott Hauger

“I don’t think it should be acceptable to any person in this world to write off a country.”¹

-- Tina Stege, Climate Envoy,
Republic of the Marshall Islands,
Glasgow, Oct 31, 2021

Introduction

In 2021, the threat that climate change poses to human and national security is well and broadly known. The first Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) was published more than 30 years ago, in 1990. That report underlined the potential global consequences of climate change. It was an important progenitor to the 1994 United Nations Framework Convention on Climate Change (UNFCCC), the global treaty that provides a framework to address the threat. Subsequent to the failure of the 1997 Kyoto Protocol to the convention, the 2015 Paris Accord cut the Gordian knot of national resistance to a binding global treaty by soliciting Intended Nationally Determined Con-

1 Quoted in Ellen Francis. 2021. “Marshall Islands pleads with world leaders to stop the 60,000-person nation from drowning,” *Washington Post* (Nov 1). <https://www.washingtonpost.com/climate-environment/2021/11/01/marshall-islands-sea-levels-cop26-tina-stege/>

tributions (INDCs) -- non-binding national plans of proposed climate actions -- from the 197 parties to the convention.

In 2021, the first volume of the IPCC's Sixth Assessment Report was published. The parties to UNFCCC have met at the 26th Conference of the Parties (COP 26) in Glasgow to review global progress since the Paris Accord toward managing the threat and to extending their commitments thereunder. Moreover, in the U.S., the Biden administration has emphasized the consideration of climate security in international relations, stating:

“It is the policy of my Administration that climate considerations shall be an essential element of United States foreign policy and national security. The United States will work with other countries and partners, both bilaterally and multilaterally, to put the world on a sustainable climate pathway. The United States will also move quickly to build resilience, both at home and abroad, against the impacts of climate change that are already manifest and will continue to intensify according to current trajectories.”²

This chapter considers the security threats to Pacific island countries (PICs) posed by climate change. It then provides a general consideration of approaches to manage the threat, before considering the geopolitical context for international cooperation to reduce the threat of climate change to Oceania. It concludes with a consideration of the prospects for Pacific island countries to manage the emerging threat in its enviro-political context.

The Security Threat

It is possible to make some general statements about the threat of climate change to the Pacific islands despite their vast geographic extent and variation and their different political histories. PICs share certain vulnerabilities to climate-related environmental change because they share the geographic fact of comprising small islands in the vast Pacific Ocean and

2 Joseph R. Biden, Jr. January 27, 2021, Executive Order on Tackling the Climate Crisis at Home and Abroad, <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/>

because they are developing nations with limited resources compared to continental, more-developed nations.

The most salient geographic difference in vulnerability is elevation above sea level. Many PICs, for example, Fiji, the Solomon Islands and Papua New Guinea have a range of peaks, slopes and coastal plains as well as outlying atolls. However, several -- Kiribati, Tuvalu, and the Republic of the Marshall Islands -- consist completely of coral atolls with elevations no more than a few meters above sea level. Perhaps the most salient political difference in vulnerability is an island state's relations with more developed nations, which may provide access to resources for adaptation or response to climate threats.

The general nature of the climate threat was detailed in the IPCC's 2019 Special Report on the Ocean and Cryosphere in a Changing Climate. IPCC reported that the ocean has steadily warmed and its acidity steadily increased over the past 50 years. Based on this trend, it projected a decline in potential fisheries for the rest of the century. It found that a decline in warm-water coral reefs was highly likely to reduce both food security and coastal protection in small island states. It also found that the rate of sea level rise is increasing due not only to thermal expansion of the oceans but increasingly as a result of melting polar ice caps. Cyclonic wind speeds and precipitation have also been increasing. These trends will continue at a pace dependent on the future rate of global carbon emissions.³

Considering the challenges of these environmental impacts to governance, the IPCC noted that:

“Impacts of climate-related changes in the ocean and cryosphere increasingly challenge current governance efforts to develop and implement adaptation responses from local to global scales, and in some cases pushing them to their limits. People with the highest exposure and vulnerability are often those with lowest capacity to respond (high confidence).”⁴

More recently, in its 2021 assessment of the security challenges of climate change, the US National Intelligence Council (NIC) found that,

3 IPCC, 2019: Summary for Policymakers. In: *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate* [H. O. Pörtner, et al., (eds.)],

4 IPCC 2019, p. 29.

together with the nations of central Africa, the small island states of the Pacific form one of the two most vulnerable areas in the world.⁵ In particular,

“Low-lying Pacific Islands are highly vulnerable to climate change because of their minimal adaptive capacity and high exposure to tropical storms and rising sea levels. . . . Climate change also may hasten the collapse of commercial fisheries that already are under severe strain from overfishing, according to the Pacific Community, which will harm local diets and economies. Regional fish consumption is three-to-five times the global average, foreign fishing licenses make up a large share of government revenue, and onshore processing provides jobs, according to a UN study.”⁶

Moreover,

“Displaced populations—especially from small island nations—will increasingly demand changes to international refugee law to consider their claims and provide protection as climate migrants or refugees, and affected populations will fight for legal payouts for loss and damages resulting from climate effects.”⁷

The climate trends and security impacts projected by IPCC and NIC are expected to continue for the foreseeable future. The NIC report projects:

“The current trajectory of growing global CO₂ emissions would cause global temperatures—at 1.1°C over pre-industrial levels now—to add 0.4°C and cross the 1.5°C threshold by about 2030, according to

5 U.S. National Intelligence Council. 2021. “Climate Change and International Responses Increasing Challenges to US National Security Through 2040.” NIC-NIE-2021-10030-A, p 11. https://www.dni.gov/files/ODNI/documents/assessments/NIE_Climate_Change_and_National_Security.pdf

6 NIE, p 14.

7 NIE, p,10,

modeling from the National Oceanic and Atmospheric Administration (NOAA), and surpass 2°C by around mid-century. Many of the physical effects are projected to increase in intensity, frequency, and speed.”⁸

In summary, science-based knowledge and intelligence assessments project the extended and increasing vulnerability of Pacific island countries to the impacts of climate change.

The immediate pain of climate change is felt at the local level, when Pacific Island communities suffer loss due to extreme weather events such as cyclones, flood or drought, and the resulting loss of life, of homes and livelihood. These events are historically well known to Pacific island people. However, the intensity and frequency of such events are projected to increase, placing greater demands for resources on communities and governments, and for humanitarian assistance and disaster relief from partner nations. More gradual and more permanent losses will result from sea level rise, loss of coral reefs, and ocean acidification.

How can these security threats be managed to maintain or improve quality of life and sustainable development of Pacific island countries?

Managing the Threat

There are three modes of action to manage the security threats of climate change:

- Mitigation includes actions to reduce or reverse the rate of global warming. This in turn means reducing the level of greenhouse gases in the atmosphere, such as carbon dioxide and methane, either through emission control or removal through such techniques as reforestation or carbon sequestration and removal.
- Adaptation includes actions to protect infrastructure, food and fresh water supplies, environmental services, and human health with the expectation that global warming will continue for some time, due to the lag time between greenhouse gas reduction and any cooling effect or, pessimistically, under the expectation that mitigation efforts will fall short.
- Response includes all those actions to alleviate the impacts of a climate-related event. It is generally associated with humanitarian

assistance and disaster relief (HADR). The fear and the expectation is that the scope of such response will drastically increase due to an increase in the frequency and intensity of climate-related disasters over time.

Assessing the opportunities and responsibilities for managing the threats is complicated by the uncertainties associated with climate change. Climate change is a complex system where multiple actors make “independent” decisions over time in the face of limited knowledge. There are no isolatable root causes to be identified, characterized and “fixed.” The decisions made by actors can interact in unpredictable ways, and new phenomena may emerge.

Moreover, climate change is a global phenomenon with causes that may be distant in time and space, but whose impacts are felt locally. Yet, the main locus of security governance lies between the local and the global. It is the sovereign nation-state that sets the legal, political, and institutional structure within which security threats must be managed. The nation-state represents its citizens in international organizations. It authorizes and manages domestic and international disaster relief missions. For Pacific island countries, this means that national governments must manage climate security threats whose cause and trajectory is outside their control, and where effective adaptation, and response, may be beyond their internal resources.

This is the complex enviro-geo-political system within which Pacific island countries must manage the emerging security threats to their populations to their governments, and to their neighbors -- both regional and distant. What are the implications?

Mitigation

Pacific Island countries’ contribution to greenhouse gas emissions is negligible.⁹ Nor do they generally have sufficient land area to make a major contribution to reforestation which can remove carbon dioxide from the air. There are no direct mitigation actions that Pacific island countries can take that will significantly improve their climate security. In the face of a serious or existential security threat, their goal must therefore be to influ-

9 L. A. Nurse, et al. 2014, “Chapter 29 Small islands,” in: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [V. R. Barros, et al. (eds.)]. Cambridge: Cambridge University Press, p. 1618.

ence large greenhouse gas emitters to reduce their emissions as rapidly as possible.

The five largest GHG emitters are China, the US, India, Russia and Japan.¹⁰ All these major emitters are seeking political influence in the Oceania region. It becomes a national interest, therefore, for Pacific Island states, acting bilaterally or multilaterally, to negotiate for a power's reduced greenhouse gas emissions in exchange for influence, trade, fishing rights, or bases. In the context of comprehensive security, this environmental quid for a traditional defense quo represents a serious and sensible norm for negotiation.

To date, Pacific island states and regional organizations have been most influential as advocates for global greenhouse gas mitigation through the UNFCCC system. In particular, it was the initiative of a High Ambition Coalition, led by the Republic of the Marshall Islands and other Pacific island countries, that won the endorsement of the Paris Accords for an aspirational goal of 1.5 degrees maximum global warming and a five-year cycle for updating INDCs.¹¹ Sustaining that influence will require continuing commitment and sustained leverage. For example, some observers have expressed concerns that COVID-related travel constraints inhibited PIC participation and influence in COP 26.¹² Satyendra Prasad, Fiji's ambassador to the UN, told Reuters, "This is the thinnest representation of Pacific islands at a COP ever." He said that the lack of delegates inevitably meant it was harder for some of the most vulnerable low-lying nations to be heard.¹³

Adaptation

In a recent article, authors from the Nature Conservancy reviewed Pacific island climate adaptation efforts at the local level. They describe

10 Union of Concerned Scientists. 2008. "Each Country's Share of CO2 Emissions." (Updated August 12, 2020), <https://www.ucsusa.org/resources/each-countrys-share-co2-emissions>

11 For a description of the coalition and its impact, see Nick O'Malley. 2021. "How Australia got blindsided in the great Pacific climate coup," *The Sydney Morning Herald* (October 9), <https://www.smh.com.au/environment/climate-change/how-australia-got-blindsided-in-the-great-pacific-climate-coup-20211008-p589y9d.html>

12 Aniruddha Ghosal. 2021. "'Thin' Pacific Island Teams at COP26 Spark Fears of Inequity," *The Diplomat* (October 28), <https://thediplomat.com/2021/10/thin-pacific-island-teams-at-cop26-spark-fears-of-inequity/>

13 Alister Doyle. 2021. "Pacific islanders struggle at COP26 climate summit as pandemic keeps leaders away," Reuters (November 4), <https://www.reuters.com/business/cop/pacific-islanders-struggle-cop26-climate-summit-pandemic-keeps-leaders-away-2021-11-04/>

a variety of community, eco-system based adaptation projects across the Pacific islands and conclude that:

“By necessity, Pacific Islands have become hubs of innovation, where climate strategies are piloted and refined to inform adaptation efforts globally.... In response [to the threat], communities in the region are leading climate adaptation strategies, often combining traditional practices and cutting-edge science, to build the resilience of their communities and ecosystems in the face of increasing climate risk.”¹⁴

Adaptation to climate change engages governance at all levels, from community to global. National governments of Pacific island countries have engaged in adaptation planning under the United Nations’ climate framework for more than twenty years. In 2001, COP 7 established a Least Developed Countries Fund (LDCF) to provide technical support to LDCs’ for the preparation of national adaptation plans of action (NAPAs). Five Pacific island countries completed NAPAs under this program (Kiribati, Samoa, Solomon Islands, Tuvalu and Vanuatu).¹⁵ COP 7 also established an Adaptation Fund to finance concrete adaptation projects in developing countries. That fund has supported projects in Pacific island countries (FSM, the Cook Islands, Fiji, PNG, and Samoa) totaling \$37 million.¹⁶

In 2010, COP 16 adopted the Cancun Adaptation Framework, an updated National Adaptation Plan (NAP) process. COP 17 subsequently provided additional modes of technical and financial support for developing NAPs under the Special Climate Change Fund (SCCF).¹⁷ COP 20, in 2014, established a NAP Global Network, which has provided in-country support to five Pacific island countries (Fiji, Kiribati, RMI, Solomon Is-

14 Elizabeth McLeod et al. 2019. “Lessons From the Pacific Islands – Adapting to Climate Change by Supporting Social and Ecological Resilience,” *Frontiers in Marine Science* (June 18), <https://doi.org/10.3389/fmars.2019.00289>

15 United Nations Climate Change. “National Adaptation Plans of Action. Accessed Nov 1, 2021, <https://unfccc.int/topics/resilience/workstreams/national-adaptation-programmes-of-action/introduction>

16 Adaptation Fund. “Projects and Programs.” Accessed Nov 1, 2021, <https://www.adaptation-fund.org/projects-programmes/project-information/projects-table-view/>

17 Global Environmental Facility. “Funding.” Accessed Nov 1, 2021, <http://www.thegef.org/about/funding>

lands, and Tuvalu).¹⁸ Since 2015, the Green Climate Fund (GCF), established under UNFCCC and administered by the World Bank, has become the dominant climate fund in the Pacific region.¹⁹

Donor nations also provide bilateral climate adaptation assistance to Pacific island countries. According to the International Monetary Fund, between 2014 and 2019, Pacific island countries received \$1.5 billion dedicated to climate adaptation and \$0.9 billion for multiple focus activities, including adaptation, with every island country receiving some support. About half has come from multilateral sources of funding and half from bilateral projects. The report notes that Australia, the European Union, Japan, and New Zealand have led the way in bilateral climate support in the Pacific.²⁰ USAID also manages bilateral programs to assist Pacific island countries in adaptation planning and financing, including the Institutional Strengthening in Pacific Island Countries to Adapt to Climate Change (ISACC) and Climate Ready programs.²¹

Adaptation to climate change poses significant challenges to small island states. As outlined above, Pacific island countries depend on external resources to fund larger-scale adaptation projects, and thus must negotiate a variety of bureaucratic and accountability processes to apply for and manage such projects. Moreover, deciding on an adaptation strategy is an inherently political process because alternate modes of adaptation may be available. Governments must seek to satisfy both citizens and external donors to be able to plan and execute a course of adaptation. The courting of international donors in the context of geostrategic competition for influence in the Pacific region provides yet another political dimension to Pacific island countries' adaptation policies.

A notable example is the political debate in Kiribati over adaption through “migration with dignity,” versus “defense in place.” The former has been championed by President Aote Tong, the latter by his successor and current President, Taneti Maamau. Under President Tong, Kiribati

18 NAP Global Network, “In-country NAP support programs.” Accessed Nov 1, 2021, <https://napglobalnetwork.org/in-country-support-programs/>

19 Manal Fuad et al. 2021. “Unlocking Access to Climate Finance for Pacific Island Countries,” International Monetary Fund eLibrary (Sep 24), Fig. 7, <https://www.elibrary.imf.org/view/journals/087/2021/020/article-A001-en.xml>

20 Fuad et al., Fig. 6.

21 USAID. Pacific Islands: Environment. Accessed Nov 2, 2021, <https://www.usaid.gov/pacific-islands/environment-and-global-climate-change>

bought 22 square km of land in Fiji to serve as a potential new home for climate migrants. In 2021, President Maamau announced that this land would instead be developed, with assistance from China, as a commercial farm providing produce to the people of Kiribati,²² while the islands pursue adaptation by building up the land to raise key areas an additional two meters above sea level.²³

Response

Where mitigation and adaptation fail, humanitarian assistance and disaster relief (HADR) are the available responses to the security threats of climate change. The security sector has historically played a key role in responding to acute disasters such as extreme weather events. HADR operations are generally managed at the national level according to standard operating procedures guiding and coordinating efforts from local to international levels. All Pacific island countries participate in disaster management planning and are experienced in responding to extreme weather events, with international assistance where necessary, and in working to restore the status quo ante.

Global warming puts more energy into the air and the ocean and thus promotes both extreme weather events and sea level rise. Scientists predict consequently more intense storms and new patterns of precipitation, and thus flooding and drought. Yet, because climate is a complex, multi-variable system, they are unable to predict far in advance when and where specific events will occur. Thus, Pacific island countries and their international partners must prepare to respond generally to more complex, more intense, and perhaps more frequent climate-related disasters predicted to occur at uncertain times and places spread over a vast geographic area. Goals and decisions about how best to respond will be complicated because it may not be practical or even possible to restore the status quo ante

22 Christopher Pala. 2021. "Kiribati and China to develop former climate-refuge land in Fiji," *The Guardian* (Feb 23), <https://www.theguardian.com/world/2021/feb/24/kiribati-and-china-to-develop-former-climate-refuge-land-in-fiji> "

23 See, for example, Ben Walker. 2017. 'An Island Nation Turns Away from Climate Migration, Despite Rising Seas,' *Inside Climate News* (Nov 20), <https://insideclimatenews.org/news/20112017/kiribati-climate-change-refugees-migration-pacific-islands-sea-level-rise-coco-nuts-tourism/>, and Samantha Goins. 2018, "Sea level Rise and Climate Migration: The Story of Kiribati," *Environmental Law Institute, Vibrant Environmental Blog* (July 6), <https://www.eli.org/vibrant-environment-blog/sea-level-rise-and-climate-migration-story-kiribati>

in the face of the ever-increasing impacts of climate change, for example, continuing sea level rise.

Increasing incidence of extreme weather events will challenge national and international planning for HADR response. Other emergent, climate-related phenomena may create new problems for which there is no known response. For example, in a recent scientific review, Heinze et al., argue that, taken together, "...ocean warming, ocean acidification, and ocean deoxygenation, if left unabated, have the potential to trigger a number of abrupt changes -- tipping points in the marine environment, with potentially serious consequences for marine ecosystems and ocean functioning."²⁴ Among the consequences may be the disappearance of tropical coral reefs and irreversible marine ecosystem regime shifts.²⁵ It is unclear what responses, if any, could ameliorate such climate-related natural disasters. Perhaps for this reason, the authors stress the need to identify and pursue mitigation pathways to avoid ocean tipping points.²⁶

Successful mitigation and adaptation are necessary to reduce future needs for climate-related HADR in Pacific island countries. As with greenhouse gas mitigation, and adaptation, resources adequate for long-term and cumulative response to climate-related disasters are potentially beyond the means of Pacific island countries, individually or collectively. The World Bank, for example, notes that in 2015, impacts from Tropical Cyclone Pam exceeded 60% of Vanuatu's GDP, and in 2016, Tropical Cyclone Winston caused more than \$900 million in estimated damage and losses in Fiji, about 20% of GDP. It notes that, "The impacts from disasters extend far beyond communities within 'ground zero' – they can slow or set back socioeconomic progress for an entire country, sometimes for generations."²⁷ Many Pacific island countries today depend on bilateral

24 Cristoph Heinze et al. 2021. "The quiet crossing of ocean tipping points," *PNAS* 118:9, p. 1 <https://doi.org/10.1073/pnas.2008478118>

25 Heinze et al., pp. 2-4.

26 Heinze et al. pp. 5-6.

27 The World Bank. 2018. "Weathering Financial Shocks from Disasters in the Pacific Islands." *News* (November 1) <https://www.worldbank.org/en/news/feature/2018/11/01/weathering-financial-shocks-from-disasters-in-the-pacific-islands>

aid or funds from international organizations for disaster assistance. That dependency can only increase as climate-related disasters increase.

In summary, it is clear that the environmental impacts of climate change pose significant, even existential security threats to Pacific island countries. Growing investments in mitigation, adaptation and response to climate change will be necessary to manage the threats and, in some cases, to sustain national existence and sovereignty. At the same time, PICs are dependent on the decisions and actions of developed nations for mitigation. They depend on developed nations' resources for adaptation projects that are beyond their means and for external assistance when necessary to respond to climate-related disasters. What is true for all nations is especially true for Pacific island countries: To address the national security impacts of the global phenomenon of climate change requires international cooperation and assistance.

The Geopolitical Context

Climate change is taking place within and as part of a complex geopolitical system of governance where the principal actors are nation-states. Pacific island countries must meet the challenges and opportunities for managing climate security within that context of competition and cooperation in pursuit of national interests. Two aspects of the geopolitical context are of high importance for Pacific island countries seeking to minimize the threats of climate change. First, the UNFCCC provides a global framework for managing climate change through its annual conferences of the parties and their protocols, accords and agreements. It is the principal forum where Pacific island countries and their regional organizations can present their interests and contribute to global governance of climate change. Second is the context of strategic competition for influence in the Indo-Pacific region by China and the U.S., the two largest greenhouse gas emitters and two nations capable of supporting climate adaptation infrastructure projects in the Pacific islands.

These two topics are salient because of the Pacific islands' relative lack of resources and thus their dependence on other nations to achieve their climate-related goals. Pacific islands' strategies to reduce climate-related security threats depend on persuading larger, more powerful and more highly resourced nations to commit to mitigating greenhouse gas emis-

sions, to fund major adaptation programs and to provide disaster response support when needed.

Pacific island countries have learned that their ability to influence global climate agreements is enhanced when they work together to promote their common interests.²⁸ That strength was exhibited in Paris in 2015 when Pacific island countries lobbied to modify the Paris Accord to recognize a 1.5 degree aspirational target for global warming.²⁹ Dame Meg Taylor, Secretary General of the Pacific Islands Forum Secretariat, later declared, “The Pacific will continue to work together, and the World must continue to work together, to save our vulnerable brothers and sisters, and future generations.”³⁰

Cooperation on climate issues through the Pacific Islands Forum continued after COP 21 and the Paris Accord. For example, in 2018, The Forum’s Boe Declaration on Regional Security recognized climate change as “...the single greatest threat to the livelihoods, security and wellbeing of the peoples of the Pacific,” and restated “our commitment to progress the implementation of the Paris Agreement.”³¹ In 2020, the Kainaki II Declaration, called for “...all parties to the Paris Agreement to meet or exceed their Nationally Determined Contributions (NDCs) in order to pursue global efforts to limit global warming to 1.5°C above pre-industrial levels, recognizing that this is critical to the security of our Blue Pacific.”³²

In Glasgow, however, the limits of small island power to influence large nations with competing interests was illustrated by the successful, last-minute move by India and China to dilute the Glasgow Climate Pact’s draft commitment to phase out coal as an energy source. Because UNFCCC decisions are consensual, the parties to the convention were, in

28 In addition to the thirteen Pacific island countries that are members of the General Assembly, the parties to UNFCCC also include the Cook Islands and Niue.

29 See e.g., SPREP press release. 2025. “We the Pacific; amplifying the Pacific voice at COP21.” Scoop Independent News, <https://www.scoop.co.nz/stories/WO1512/S00009/we-the-pacific-amplifying-the-pacific-voice-at-cop21.htm>

30 Secretariat of the Pacific Regional Environment Program. 2016. “Six Pacific Islands Ratify The Paris Climate Accord,” (April 26), <https://www.sprep.org/news/six-pacific-islands-ratify-paris-climate-accord>

31 Pacific Islands Forum. 2018. “Boe Declaration on Regional Security,” <https://www.forumsec.org/2018/09/05/boe-declaration-on-regional-security/>

32 Pacific Islands Forum. 2019. “Kainaki II Declaration for Urgent Climate Action Now” (August 15), <https://www.forumsec.org/2020/11/11/kainaki/>

effect, forced to support the change or see the entire agreement fail. As reported by the BBC:

“The Glasgow climate deal has put India and China in the spotlight after they opposed a commitment to ‘phase out’ coal while negotiating the final agreement. Instead, countries agreed to ‘phase down’ coal, causing disappointment and concern over whether the world can limit the average global temperature rise to 1.5C. ‘China and India will have to explain themselves and what they did to the most climate-vulnerable countries in the world,’ said the COP26 president, Alok Sharma.”³³

This change was of special disappointment to Pacific island delegates. As reported by the Guardian, “Even the presence of Pacific negotiators could not influence the outcomes of the Glasgow summit, which as it stands – even if conditional and unconditional nationally determined contributions for the near-term target of 2030 were met – projected that warming might still spell the end for some Pacific atoll nations.”³⁴

The UNFCCC provides a forum for negotiating multilateral agreements to manage the threats of climate change. Strategic competition between China and the US for influence in the Indo-Pacific region provides Pacific island countries with another stage for pursuing their special interests in mitigation, adaptation and response to climate change.

U.S. interests in the region were summarized by Kurt Campbell in a June 8, 2021 speech to the Center for a New American Security. As reported by Reuters:

“The U.S. policy chief for the Indo-Pacific said on Tuesday the United States aims to work with Japan, New Zealand, Australia and others to assist island nations in

33 Navin Singh Khadka. 2021. “COP26: Did India betray vulnerable nations?,” *BBC News* (November 17), <https://www.bbc.com/news/world-asia-india-59286790>

34 Lagipoiva Cherelle Jackson. 2021. “Cop26: Pacific delegates condemn ‘monumental failure’ that leaves islands in peril,” *The Guardian* (November 13), <https://www.theguardian.com/world/2021/nov/15/cop26-pacific-delegates-condemn-monumental-failure-that-leaves-islands-in-peril>

the Pacific, a region of increasing strategic competition with China....

“These are islands which we have enormous historical moral and strategic interests in.... And increasingly, again this is an arena of competition both in terms of values, their role at the United Nations, their health challenges, climate change their potential role militarily, healthy fishing stocks, just down the list....

“He said the region faced enormous challenges dealing with poverty, disease, and climate change and helping to meet those was difficult given their small disparate populations.

“But for the United States, again this is another area where we must step up our game.”³⁵

China’s interests were articulated by its Ministry of Foreign Affairs on October 10, 2021, in a Joint Statement of the China-Pacific Island Countries Foreign Ministers’ Meeting. The statement concluded,

“All parties shared the view that climate change is a major challenge facing humanity and are committed to jointly promoting the full and effective implementation of the Paris Agreement and a fair and equitable system of global climate governance for win-win cooperation. China understands the special difficulties of Pacific Island Countries in tackling climate change, and will set up a China-Pacific Island Countries climate action cooperation center and continue to assist Pacific Island Countries as it can in enhancing capacity building to tackle climate change under the framework of South-South cooperation.”³⁶

Yet there is complexity in the arena of strategic competition in interplay with the complexity of global climate negotiations. On November

35 David Brunnstrom and Michael Martina. 2021. “U.S. says to work with allies to help Pacific islands amid China rivalry,” *Reuters* (June 8), <https://www.reuters.com/world/asia-pacific/us-says-work-with-allies-help-pacific-islands-amid-china-rivalry-2021-06-08/>

36 Ministry of Foreign Affairs of the People’s Republic of China. 2021. “Joint Statement of

10, 2021, at COP 26, China and the US announced a turn to strategic cooperation on climate mitigation, issuing the “U.S.-China Joint Glasgow Declaration on Enhancing Climate Action in the 2020s.” Described as a surprise by commentators, the declaration focused on the urgent need to pursue mitigation efforts both internally and internationally. The two nations stated a commitment to work together to achieve the goals of the Paris Agreement and, further, to “strengthen and accelerate climate action and cooperation” to close the gap between national commitments under the agreement and emission targets necessary to limit global warming to 1.5 to 2 degrees. In paragraph 13, it also recognizes “. . . the significance of adaptation in addressing the climate crisis, including further discussion on the global goal on adaptation and promoting its effective implementation, as well as the scaling up of financial and capacity-building support for adaptation in developing countries.”³⁷

The geopolitical context for managing climate change is thus both complex and dynamic. The UNFCCC process is targeted at global cooperation to minimize the security impacts of climate change, but other interests of the parties sometimes hinder such cooperation. Competition for geostrategic dominance in the Pacific by China and the US is in tension with national interests in cooperation to address the security impacts of climate change and to influence international perceptions of benign response to a global existential threat. Because of the global nature of climate change and their limited resources for mitigation, adaptation and response, the success of Pacific island countries in addressing the threats of climate change will depend on their ability to promote their interests in this geopolitical context.

Prospects

The scientific consensus is that global warming will continue until and unless the nations control greenhouse gas emissions. According to a post-COP 26 assessment published in Nature,

“A study for the Climate Action Tracker website, by
Niklas Höhne at Wageningen University in the Neth-

China-Pacific Island Countries Foreign Ministers’ Meeting,” (Oct 10), https://www.fmprc.gov.cn/mfa_eng/zxxx_662805/t1915970.shtml

37 US Department of State. Media Note. 2021. “U.S.-China Joint Glasgow Declaration on Enhancing Climate Action in the 2020s, (November 10), <https://www.state.gov/u-s-china-joint-glasgow-declaration-on-enhancing-climate-action-in-the-2020s/>

erlands and his colleagues, showed that, if pledges announced at the COP meeting are implemented, temperatures are still projected to rise 2.4 °C by 2100, well above the 1.5 °C target agreed at the 2015 Paris climate summit. The effects of this are likely to be catastrophic.”³⁸

As we have seen, avoiding such a catastrophe is beyond the direct capabilities of any Pacific island country or of all PICs working together. Working together, however, PICs should be able to exert greater influence on international forums and to leverage mutual assets, such as access to fisheries, in negotiations with developed nations. It is in their interest to work together through their regional organizations to maximize their influence on countries that are large greenhouse gas emitters. Because those larger nations are also vulnerable, if to a lesser extent or on a longer time scale, PICs should find a growing number of political allies therein, who share their priorities for climate security.

Global progress to mitigate greenhouse gas emissions has been slow and fitful, but Pacific island countries with common interests have helped to shape positive advances through the UNFCCC. In spite of setbacks, such as the dilution of commitment to phasing out coal in the final language of the Glasgow Climate Pact, they must continue to champion global greenhouse gas mitigation in order to secure their own environmental security

Given the predicted trajectory of climate change, the major opportunity for agency for most PICs will be in the area of adaptation. Unlike mitigation, most adaptation activities and impacts are localized, for example, to a particular reef, coastline, floodplain, aquifer, or village. Some actions will be achievable with national resources. Others will require external funding or technical assistance, and individual countries may be in competition with their peers for those resources.

Pacific island countries have been developing national action plans for adaptation to the impacts of climate change since at least 2001, often with support from international organizations and donor nations. It remains incumbent upon island governments to implement and update those plans, drawing upon national and external resources. Regional organizations can be focal points for collaboration to lobby for increased multilateral

³⁸ “COP26 didn’t solve everything — but researchers must stay engaged.” 2021. Editorial, (November 16), *Nature* 599, p. 347, <https://www.nature.com/articles/d41586-021-03433-2>

funding, for example, through the Global Environment Facility and the Green Climate Fund. Thus, while different countries vie for a larger piece of the pie, working together, they can seek to increase the size of the pie. These activities are not new but an extension of past politics and practices for Pacific island countries.

What is new is the complexity of the emergent climate crisis in its geopolitical system. Optimal planning for the extent of adaptation and the choice of adaptation strategy depends on the global course of mitigation and on the interactive decisions of multiple actors. For example, the success of India and China at diluting the Glasgow Pact's aspirational commitment to phasing out coal may have unquantifiable but real impacts on achieving Pacific Island Countries' goal of limiting global warming to 1.5 degrees. Anticipating those effects will influence thinking about adaptation strategies. The most dramatic example is, for atoll nations, whether to adapt through emigration, or to adapt in place through civil engineering and lifestyle changes. Impacting such decisions will be the internal politics of reaching a national consensus, the international politics of acceptance by and transition to a host nation(s), and the potential impacts on national and regional security of mass migration.

Adding to the uncertainty will be the climate-related decisions of other nations and peoples. For example, rising sea levels that lead to emigration from Pacific island countries will have similar impacts on low-lying continental river deltas, including urban areas in India, China, Indonesia, Vietnam and Bangladesh. In the event of a global failure to mitigate, Pacific island countries will likely be competing with larger nations for resources to adapt to climate change under perilous circumstances. Donor nations will be concerned about addressing the security situation not only in the Pacific islands, but across the region and the globe and at home.

Similar considerations apply to resources for climate-related disaster response. Global and regional structures are in place and have frequently been used to provide HADR support to Pacific island countries. It is the intensity and frequency of need and the possibility of compound disasters that will impact the complex enviro-geo-political system within which disaster response must occur.

Pacific island countries have an opportunity to leverage the nexus of US-Chinese strategic competition and collaboration to advance their own goals and interests. Specifically, Pacific Island countries can collaborate to encourage the two nations to follow through on their Joint Glasgow

Declaration on Enhancing Climate Action in the 2020s. Working together through regional organizations such as the Secretariat of the Pacific Regional Environment Programme (SPREP), they can craft proposals for joint Sino-American support to adaptation projects that may be hard to decline in light of the goals endorsed in the declaration. On the other hand, individual Pacific island countries may decide that it is in their better interest to trade access to ports, bases, or fishing rights, for example, in exchange for concessions on climate mitigation and resources for adaptation or response.

Conclusion

In summary, according to the scientific consensus reported by the Intergovernmental Panel on Climate Change, Pacific island countries and the world face a security crisis from the emergent, complex phenomenon of climate change. The principal cause of climate change is the historical and continuing emission of greenhouse gases into our shared atmosphere and oceans resulting in global warming and ocean acidification. Pacific island countries, whose greenhouse gas emissions are *de minimis*, are nonetheless especially vulnerable to climate change by virtue of their geography, demography, and limited financial resources. For atoll nations, the vulnerability is existential as rising sea levels and extreme weather events can eventually make them uninhabitable.

The course of the emergent climate crisis will depend on mitigation that is reducing atmospheric greenhouse gas concentrations. Pacific island countries have no direct way to contribute to such reduction, only the possibility of influencing major emitters to address the issue. To the extent that mitigation fails to reduce global warming, Pacific island countries must adapt to rising sea levels, extreme weather events, and changes in ocean temperature and chemistry that impact marine life and coral reefs. Where adaptation fails, they must prepare to respond to the impacts of climate change. Here too, in the worst-case scenarios, Pacific island countries will be dependent on accessing the resources of developed countries with their own interests and agendas for the resources to adapt and respond.

There is a post-WWII global framework through which developed countries contribute to adaptation and response to natural disasters in less developed countries. Since 1994 under the UNFCCC, an expanding part of that framework has been targeted at greenhouse gas mitigation and adaptation and response to the impacts of climate change. Pacific island countries are experienced in seeking and receiving support under that

framework. Collaborative approaches to promoting their interests through regional organizations have had some success in the past and also some disappointments. Nonetheless, it must be so that a united voice will be more effective than fragmented voices in influencing the course of global governance of climate change.

Beyond the United Nations framework, Pacific island countries must navigate the dynamic context of great power competition for influence in Oceania. In Glasgow, China and the US vowed to strengthen and accelerate their climate action and cooperation for mitigation and to discuss the effective financing and implementation of adaptation in developing countries. Working together, Pacific island countries have an opportunity to exploit this declaration and to influence nations to compete for pride of place in resourcing climate adaptation and response. By working together through a Pacific island-managed organization such as SPREP, Pacific island nations can increase their joint control over the course of external support.

Sino-American cooperation in the domain of climate change is a tentative exception to the broader environment of strategic competition in Oceania. Within that context of competition, Pacific island countries have an opportunity to trade access to their resources, notably bases, fisheries, and votes in the UN General Assembly, in exchange for resources for climate adaptation and response and pledges for mitigation. It is impossible to predict how regional strategic competition will play out in the face of the global threat of climate change which requires strategic cooperation for its successful resolution. Over the course of the 21st century, the global geopolitics of climate change will be a key indicator of regional security in the enviro-geo-political system of the Indo-Pacific region.