21st Century as the Pacific Century

Culture and Security of Oceania States in Great Power Competition

edited by
Joanna Siekiera

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Fighting for the Ocean. Climate Change and Fragility in Oceania

1. Introduction

With its vast expanse of ocean and numerous island nations, the Pacific region has long been recognized as a hotspot where the security implications of climate change will be particularly pronounced. Climate change threatens Pacific communities' security and well-being, giving rise to significant economic, environmental, and social challenges throughout the region. This paper delves into the intricate relationship between climate change, conflicts, fragility, and social tensions in Oceania, shedding light on the far-reaching implications of these interconnections for the region's stability and resilience. The environmental impacts of climate change are already making their presence felt in the Pacific. Rising sea levels, soaring temperatures, and intensified natural disasters are triggering coastal erosion and land salinity and endangering the health of coral reefs and marine biodiversity. These environmental disruptions carry immense economic and social repercussions, especially in a region heavily reliant on the blue economy. The consequences extend to natural resources, food security, livelihoods, and migration patterns. While the Pacific region has enjoyed relative peace for the past five decades, the looming threat of climate change exacerbates the multifaceted security risks and geopolitical dynamics. The international community has identified the Pacific region as one of the most vulnerable areas, highly exposed to worsening climate risks in the near future, with potential implications for social cohesion, political stability, peace, and security.

Notably, low-lying atoll nations face existential risks due to rising sea levels and natural disasters' escalating frequency and intensity. However, it is essential to resist assuming that these environmental challenges will inevitably lead to violent conflict. Pacific communities boast a rich history of cooperation, conflict resolution, and peacebuilding, often rooted in indigenous traditions and practices. These traditions have enabled these communities to weather the social effects of environmental change,

offering invaluable insights into the potential for adaptive and transformative responses to climate change, conflicts, fragility, social tensions, and violence.[1]

This chapter draws upon existing literature, case studies, and lessons learned to identify the primary drivers of climate-related security risks in the Pacific region. Indeed, economic vulnerability, resource scarcity, migration, and geopolitical tensions are crucial factors. Moreover, assessing the potential implications of these risks for the region's social, economic, and political stability becomes of key importance, emphasizing the need for integrated, cross-sectoral approaches to climate adaptation. These approaches aim to forge effective policy responses that foster sustainable development, social cohesion, and peace.

Ultimately, this chapter argues that climate change represents the primary threat to the Pacific people's livelihood, security, and well-being. The Pacific region's vulnerability underscores the urgent need to address the root causes of these risks, including greenhouse gas emissions and unsustainable resource utilization. Furthermore, it highlights the significance of promoting resilient and adaptive responses that prioritize the needs and perspectives of Pacific communities while fostering cooperation, trust, and social cohesion.

2. Setting the scene

Encompassing nearly one-third of the Earth's surface, the Pacific region is a unique and fragile ecosystem characterized by its vast ocean expanse and small island nations. Within this region, 14 small island nations with a collective population of approximately 10 million people coexist, and the area boasts an astounding array of marine biodiversity, including some of the most extensive coral reefs globally.[2] However, the region is highly susceptible to natural hazards, finding itself at the forefront of existential threats and the impacts of climate change. This section establishes the backdrop by exploring the region's geography, environment, economy, and security context, illuminating the interconnections and implications for the region's stability and resilience.

Climate change presents a significant challenge for the Pacific region, having emerged as one of the most pressing security concerns Pacific communities face.[3] Despite contributing a negligible fraction of global greenhouse gas emissions –

[1] K. Higgins et al., *Climate Change and Conflict Risks in the Pacific*, Conciliation Resources, Melbourne–London 2021.

[2] F.M. Battaglia, "Climate Change and the Ocean: The Disruption of the Coral Reef," in: A. Cortes, M. da Gloria Garcia (eds.), *Blue Planet Law: The Ecology of our Economic and Technological World*, Springer Nature, Cham 2023.

[3] UN Security Council, *Research Report: The UN Security Council and Climate Change*, no. 2 (21), 2021, https://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/climate_security_2021.pdf (accessed: 26.05.2023).

approximately 0.03% of the total – the Small Island Developing States in the Pacific region are already experiencing disproportionate impacts of climate change.[4] Rising sea levels, ocean acidification, and increasing water temperatures are taking a toll on coral reefs, fisheries, and other ecosystems vital to these communities. Furthermore, extreme weather events like cyclones, droughts, and floods have caused substantial economic, social, and environmental damage. The Pacific region anticipates significant implications for food security, as reduced food production and water scarcity resulting from freshwater salinization affect the most vulnerable groups.[5]

Additionally, the escalating frequency and intensity of natural disasters has already dealt severe blows to the economies of these communities, resulting in substantial damages and losses. While a hypothetical Atlantis scenario remains unlikely, at least in the near future, the impending sea level rise raises concerns about the habitability of low-lying islands. Mass migration and planned relocations of entire populations are becoming imminent realities, presenting significant challenges for the affected communities.[6] These challenges encompass cultural loss, social and economic dislocation, potentially exacerbating conflicts, fragility, and regional tensions. The small island states in the Pacific region exhibit remarkable diversity in terms of their culture, political and governance maturity, population, development, and migration prospects. Such diversity creates significant social and economic disparities, increasing the risk of instability and fragility.[7]

The limited economic base of the region hampers its ability to generate employment opportunities and enhance social safety nets for vulnerable groups. Geographic isolation and restricted access to resources and markets further compound Pacific communities' vulnerabilities. Moreover, the strategic location of the Pacific region between the Americas, Asia, and Australia, coupled with the strategic value of its natural resources, places it at the center of complex geopolitical and strategic competition. Finally, the region's heavy reliance on the ocean and the blue economy intensifies the economic and social challenges exacerbated by climate change. Acknowledging the significance of the Pacific region's challenges, Pacific leaders convened for the Boe Declaration[8] and formulated the 2019 Action Plan.[9] They explicitly recognized climate change as a significant threat to the region's security and adopted an expanded concept of security to incorporate climate change alongside traditional complex security issues.

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[4] F.M. Battaglia, *op. cit.*

[5] K. Higgins et al., *op. cit.*

[6] International Organization for Migration (IOM), *Climate Change and Migration in Vulnerable Countries*, n.p. 2019.

[7] S. Firth, *Instability in the Pacific Islands: A Status Report*, Lowy Institute, 2018, https://www.lowyinstitute.org/publications/instability-pacific-islands-status-report (accessed: 26.05.2023).

[8] Pacific Islands Forum (PIF), *BOE Declaration on Regional Security*, 2018, https://www.forumsec.org/2018/09/05/boe-declaration-on-regional-security/ (accessed: 26.05.2023).

[9] PIF, *BOE Declaration Action Plan*, n.p. 2019, https://www.forumsec.org/wp-content/uploads/2019/10/BOE-document-Action-Plan.pdf (accessed: 26.05.2023).

This acknowledgement of the multifaceted and complex security challenges facing the Pacific region underscores the urgent need for a comprehensive, cross-sectoral approach encompassing climate adaptation, peacebuilding, and security.

Thus, this chapter acknowledges the intricate and multidimensional nature of the security challenges encountered by the Pacific region, emphasizing the necessity of a comprehensive approach to address these challenges. Furthermore, the paper underscores the importance of integrating climate adaptation and peacebuilding efforts while prioritizing the needs and perspectives of Pacific communities.

Additionally, it emphasizes the significance of fostering cooperation, trust, and social cohesion among Pacific nations, recognizing the shared vulnerabilities and interests that unite the region. In summary, this paper aims to provide a comprehensive analysis of the security challenges faced by the Pacific region in the context of climate change, conflicts, fragility, and social tensions. Doing so seeks to contribute to a deeper understanding of these challenges and inform effective policy responses that promote sustainable development, social cohesion, and peace in the Pacific region.

3. Challenges

3.1. Displacement and forced migration

One of the most prominent security implications of climate change in Oceania is the risk of displacement and forced migration. The combination of rising sea levels, coastal erosion, and natural disasters is already inflicting substantial damage on infrastructure and resulting in the displacement of individuals and communities. These trends are expected to persist and intensify, potentially leading to social tensions and conflicts, particularly in resource-scarce areas.[10] The loss of land and homes also significantly impacts the affected communities' cultural identity and well-being. Climate change is increasingly recognized as a critical driver of migration, both within nations and across borders. The disruption caused by climate change and the escalating frequency of natural disasters will likely trigger large-scale population movements. The Intergovernmental Panel on Climate Change (IPCC) acknowledges that climate change is intricately linked to human migration and recognizes that the impacts of climate change, environmental degradation, and disasters will inevitably lead to human migration.[11] The factors driving climate-induced migration are multifaceted and interact with existing vulnerabilities, compelling people to relocate.

In short, climate change can give rise to two types of forced migration. The first type occurs due to rapid-onset natural disasters, where people are suddenly displaced

[10] IOM, *op. cit.*

[11] IPCC, *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation: Special Report*, Cambridge University Press, Cambridge 2012.

but typically remain within their country. The second type results from gradual changes, such as sea-level rise or desertification, which erode communities' and ecosystems' resilience. Slow-onset climate events cause long-term environmental changes that eventually force people to leave their homes. These types of climate-induced migrations occur over longer timescales than those driven by political factors.[12] Most displacements resulting from slow-onset climate change occur within a country, with threatened populations moving to safer areas. In some cases, territories may become uninhabitable or vanish entirely, necessitating relocation to other countries. Nevertheless, most climate-induced migrations are expected to be progressive and regional rather than mass international movements.[13]

For Small Island Developing States (SIDS) in the Pacific region, climate change transcends the realm of disaster adaptation and becomes a matter of national security and stability. Indigenous communities, whose livelihoods and resource systems are deeply interconnected with their ecosystems, face distinct challenges in the face of displacement. Even before their lands are submerged, saltwater intrusion, erosion, and reef degradation render their lands unproductive, compelling thousands to seek relocation. Displacement and migration are already taking place within and between countries in the Pacific region. The primary drivers behind these movements are increasing land loss, saltwater intrusion, and growing food insecurity. However, implementing successful resettlement plans poses significant challenges, requiring substantial resources, available land, and cooperation from local communities. Difficulties encountered during this process increase the risk of conflicts and violent outbreaks.[14]

Forced migration and displacement in the Pacific region also exacerbate conflicts and fragility within communal systems. Complex land tenure and resource ownership systems, often needing more certainty in land acquisition and excluding traditional governance systems and critical stakeholders, add to the risk factors. Other challenges contributing to tension and conflict include cultural practices not fully understood by migrating or receiving communities, limited available land for relocation, difficulties in providing employment, education, and social support systems for displaced individuals, as well as the complex immigration requirements and limited transportation routes in the Pacific region. For instance, Pacific Island citizens often need to transit through Australia and New Zealand to travel between island countries, but obtaining visas for this purpose is frequently challenging and unsuccessful.[15] In summary, displacement and forced migration in the Pacific region present significant challenges

[12] D. Bodansky et al., *International Climate Change Law*, Oxford University Press, Oxford 2017, ch. 9.

[13] J. McAdam, "Disappearing States, Statelessness and the Boundaries of International Law," in: J. McAdam (ed.), *Climate Change and Displacement: Multidisciplinary Perspectives*, Hart Publishing, Oxford 2012.

[14] *Ibidem.*

[15] Climate Diplomacy, Climate Security Expert Network, *Climate-Fragility Risk Brief: The Pacific Islands Region*, Adelphi, 2019.

and risks for affected communities and broader social and political dynamics. Addressing these challenges necessitates comprehensive approaches that consider land tenure, resource ownership, cultural differences, and the imperative of cooperation and support from local communities.

3.2. Natural disasters and coping capacity

The heightened risk of natural disasters and the limited coping capacity are two critical aspects that exacerbate the impact of climate change on SIDS. The Pacific region, in particular, has been identified as highly exposed to natural disasters, making SIDS more vulnerable to adverse weather events such as hurricanes, cyclones, storm surges, and flooding. These events can cause extensive devastation and disrupt crucial sectors, compounding the existing challenges faced by SIDS.[16] In recent years, Pacific Island nations have experienced severe economic losses, with some countries witnessing a reduction of up to 60% in their GDP due to single tropical cyclone events.[17] These catastrophic events and shortened recovery periods pose significant risks of fragility. They have the potential to generate short-term conflicts and undermine the long-term development progress achieved by these nations. Rising sea levels pose a significant threat to SIDS, as even a slight increase can result in coastal erosion, saltwater intrusion into freshwater supplies, and the loss of habitable land. This, in turn, endangers critical infrastructure and food security and can lead to population displacement.

The intensification of storms and severe weather events also causes extensive damage to infrastructure, including housing, roads, and utilities. This disruption of essential services hampers recovery efforts. Recognizing these vulnerabilities, several Pacific SIDS have initiated projects to augment ports and reconstruct infrastructure. However, many countries in the region need help accessing necessary funds due to high debt levels and limited capacity. Therefore, improving disaster preparedness and response mechanisms is essential. Facilitating access to additional climate finance becomes crucial, as it enables these countries to co-finance critical infrastructure investments and build resilience against climate change. Coping capacity refers to the ability of SIDS to respond and adapt to the impacts of climate change effectively. However, SIDS often face limitations in their coping capacity due to resource constraints, including financial and technological limitations. These constraints hinder their ability to implement necessary climate change adaptation and mitigation measures. SIDS frequently have small economies that heavily rely on a narrow range of industries, such as tourism and agriculture. Climate change adversely affects these sectors, reducing revenue and limiting resources for adaptation and mitigation efforts. As a result, financial constraints impede the implementation of long-term strategies to address the impacts of climate change.

[16] IOM, *op. cit.*

[17] Climate Diplomacy, *op. cit.*

Moreover, SIDS generally need more advanced technological capabilities to monitor and respond to climate change impacts effectively. It includes the absence of early warning systems for natural disasters, resilient infrastructure, and limited access to clean energy sources. There need to be more technological resources to ensure the ability of SIDS to prepare for and respond to the adverse effects of climate change. In conclusion, climate change poses numerous challenges to SIDS, with coping capacity and the increased risk of natural disasters playing significant roles. Rising sea levels, intensified storms, and ecosystem degradation will amplify SIDS' vulnerability to natural disasters. Additionally, limited financial resources, technological constraints, and institutional capacity hinder their ability to adapt and respond effectively. Addressing these challenges requires international collaboration, increased financial assistance, technology transfer, and capacity-building initiatives to empower SIDS.

4. Food security and water scarcity

The impact of climate change on food and water security is another significant security concern that might lead to social tensions and conflict over access to resources, particularly in areas where these are already scarce.[18]

The region faces multiple threats to food security, including climate change, global economic volatility, rapid urbanization, land degradation, loss of crop genetic diversity, and the degradation of coastal and coral ecosystems. These challenges strain the main pillars of food security, namely the availability, access, and consumption of nutritious food. Consequently, an increasing reliance on imports with low nutritional value leads to malnutrition and susceptibility to various illnesses and preventable deaths.[19] Agriculture and fisheries have traditionally played crucial roles in ensuring food security for Pacific communities. However, climate change severely affects food systems in the region, disrupting agricultural and fisheries production. Changes in precipitation patterns, rising temperatures, and sea level rise directly impact freshwater resources, compromising agriculture and food production and contributing to waterborne diseases.[20]

While there may be some potential gains in crop yields due to a warming climate in the short term, these benefits could be offset by precipitation patterns in wetter or drier conditions. Excess heat and drought will likely lead to crop losses and lower livestock and poultry production in certain areas. In contrast, increased rainfall may result in soil oversaturation and physical damage in others. Coastal and low-lying

[18] Climate Diplomacy, *op. cit.*

[19] S. Salem, *Climate Change and Food Security in the Pacific*, 2020, https://www.e-ir.info/2020/02/18/climate-change-and-food-security-in-the-pacific/ (accessed: 26.05.2023).

[20] J. Barnett, "Climate Change and Food Security in the Pacific Islands," in: J. Connell, K. Lowitt (ed.), *Food Security in Small Island States*, Springer, Singapore 2020.

farms are particularly vulnerable to seawater inundation and saltwater intrusion into groundwater. These significant projected impacts may discourage large-scale or intensive agriculture investments, which face difficulties due to land tenure issues.[21]

Fish stocks are also at risk due to the destruction of coastal habitats, coral death, and the acidification of seawater in the long term. Coastal fisheries, vital for subsistence economies, will face additional challenges from overfishing as populations grow, urban areas expand, and fish habitats are lost. Offshore fisheries, mainly tuna, are also at risk. According to the International Organization on Migration (IOM), as temperatures increase, marine species such as tuna gradually move away to seek colder waters, threatening the livelihoods of many people directly employed in the fishing sector.[22] Consequently, offshore fish stocks may initially experience significant gains in the medium term but are projected to suffer a net loss by the end of the century, depending on the extent of climate change.[23] In addition to climate change, there are other threats to future food security in the Pacific region. As experienced in the last year, the food prices crisis and economic fluctuations will further exacerbate the precarious situation caused by climate change. Additional challenges include rapid urban population growth, land degradation, declining land productivity, erosion of crop genetic diversity, coastal and coral degradation, and declining fisheries' productivity. Addressing these challenges requires comprehensive strategies prioritizing adaptation measures, sustainable agricultural practices, effective fisheries management, and preserving traditional social safety nets.

5. Blue economy

As mentioned above, due to the negative impact on both the agriculture and fishery sector, climate change is also a security concern for regional economies. The so-called blue economy, which includes fisheries, tourism, and shipping, is a significant contributor to the economies of many Pacific Island countries. However, the impacts of climate change, such as coral bleaching and ocean acidification, are affecting the health and productivity of marine ecosystems, which in turn is detrimental to the livelihoods of those who depend on them.[24] The loss of income and economic opportunities can contribute to social tensions and conflict. The delicate island ecosystems, such as coral reefs and mangroves – which also act as natural barriers against storm surges and provide vital habitats for marine life – are severely impacted by environmental changes and variability. The degradation of these ecosystems weakens the resilience

[21] Asian Development Bank (ADB), *Climate Change and Food Security in the Pacific, Rethinking the Options*, Metro Manila 2011.

[22] IOM, *op. cit.*

[23] ADB, *op. cit.*

[24] F.M. Battaglia, *op. cit.*

of SIDS and heightens their vulnerability to natural disasters. Preserving and restoring these ecosystems is crucial for enhancing the adaptive capacity of SIDS.

The decline of corals will significantly affect various aspects of SIDS' economies. One of the significant consequences will be the substantial disruption of ocean productivity, which is intricately linked to the health and vitality of coral ecosystems. Coral reefs serve as crucial habitats for a wide range of marine species, providing shelter, breeding grounds, and feeding areas. The loss of corals not only diminishes the biodiversity and ecological balance of the oceans but also disrupts the intricate food webs that support marine life.[25] Moreover, the stability of coastal infrastructure faces significant jeopardy as coral reefs act as natural barriers, protecting coastlines from the destructive forces of storms, waves, and erosion. The intricate structure of coral formations helps dissipate wave energy, reducing the impact of coastal flooding and minimizing the risks to human settlements, infrastructure, and critical coastal assets. Without the protective buffer provided by healthy coral reefs, coastal communities in the Pacific region become increasingly vulnerable to the devastating consequences of extreme weather events and rising sea levels.

Additionally, the decline of coral reefs poses a grave threat to the marketability and sustainability of the Pacific's vital and expanding tourism industry. The region's stunning coral reefs and vibrant marine life have long been a major attraction for tourists worldwide, drawing visitors eager to explore and experience the rich biodiversity of these underwater wonders. The decline in coral reef health can lead to a decline in visitor numbers, reduced tourist expenditures, and negative impacts on local economies that heavily rely on tourism revenue. This economic setback not only affects businesses directly involved in tourism, such as hotels, dive centers, and tour operators, but also has ripple effects on other sectors that support the tourism industry, including transportation, hospitality, and the supply chain.

As mentioned above, climate change is bound to permanently alter the fishing industry in SIDS. The Western and Central Pacific Ocean is home to almost 60% the world's tuna stocks,[26] and it is well known that several Pacific SIDS are highly reliant on tuna. The projected alterations in the distribution patterns of tuna and the consequential diminution in government revenue are instigating apprehension among nations within the region. This concern stems from the potential disruption of well-established regional arrangements that govern the management of shared tuna resources among these nations.[27] Considering these challenges to the blue economy, it is easier to understand how the Pacific countries are facing significant revenue losses when their expenditures on recovery and adaptation are rising.

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[25] *Ibidem.*

[26] J. Siekiera, "Legal Consequences of Ocean Change in the South Pacific: Outline of the Problem," *Lex Portus* 5 (19), 2019, pp. 7–20.

[27] Climate Diplomacy, *op. cit.*

6. Maritime zones and boundaries

The rise in sea levels substantially threatens the statehood and sovereignty of coastal states located in low-lying areas. This peril stems from land loss and population displacement, potentially undermining the affected states' political and territorial integrity. Furthermore, this phenomenon carries legal implications, particularly concerning territorial boundaries.[28] Maritime boundaries undoubtedly play a pivotal role in a country's governance, security, law enforcement, and natural resource management. They enable the enforcement of fishing rights and the implementation of diverse strategies for the sustainable management of marine resources. Well-defined maritime boundaries bolster a country's capacity to prosecute sea-based crimes and effectively implement border control, customs, and biosecurity measures.[29]

However, rising sea levels can alter seemingly permanent marine features that demarcate maritime zones, potentially leading to disputes over a state's maritime jurisdiction. Consequently, managing fisheries, oil and gas exploration, and other maritime activities is subject to significant repercussions. Moreover, sea level rise affects the rights of Pacific SIDS to coastal resources that extend beyond territorial boundaries. The inundation of coastal areas raises concerns about critical habitat loss and the displacement of coastal communities. This issue has sparked debates and concerns regarding the region's legal ramifications of territorial submersion and human displacement. Pacific leaders are steadfast in their commitment to safeguarding their countries' resource rights for the future, recognizing the paramount importance of establishing secure boundaries to prevent the erosion of national territories and the states' jurisdiction due to the impacts of sea-level rise and climate change. It is crucial to underscore that efforts for boundary delimitation necessitate collaborative negotiations at both regional and international levels, particularly involving island countries and neighboring countries with territories in the region. In recent years, the international community has shown a growing interest in this matter, emphasizing the need to prioritize maritime boundary negotiations on the international agenda.[30] The objective is to ensure that once maritime zones are demarcated under the United Nations Convention on the Law of the Sea, they remain unchallenged and unaffected by sea-level rise and climate change impacts.

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[28] J. Siekiera, *op. cit.*

[29] *Ibidem.*

[30] See: International Law Association (ILA), *Lisbon Conference on International Law and Sea Level Rise Report*, n.p. 2022; and International Law Commission (ILC), *Second Issues Paper: Sea-level Rise in Relation to International Law*, n.p. 2022.

7. Conclusion

The analysis of climate change and fragility in Oceania highlights the significant security challenges and risks faced by the region. The findings underscore the urgent need for comprehensive and integrated approaches to address these challenges and promote sustainable development, social cohesion, and peace. One key finding is the risk of displacement and forced migration resulting from rising sea levels, coastal erosion, and natural disasters. The displacement of populations poses a threat of social tensions and conflicts, particularly in areas where resources are already scarce. It is crucial to prioritize the needs and perspectives of affected communities in implementing adaptive and transformative responses to climate change and its associated impacts.

The heightened risk of natural disasters and limited coping capacity further exacerbate the security challenges in the region. SIDS in the Pacific are highly vulnerable to natural disasters, which can cause extensive economic, social, and environmental damage. Enhancing disaster preparedness, response mechanisms, and access to climate finance are essential for building resilience and reducing fragility. Food and water security are also significant concerns, with climate change affecting agricultural and fisheries production. The decline in crop yields, loss of coastal habitats, and the acidification of seawater pose challenges to food production and livelihoods. Sustainable agricultural practices, effective fisheries management, and preservation of traditional social safety nets are essential for ensuring food security in the region. The impact of climate change on the blue economy, including fisheries, tourism, and shipping, threatens the economic stability of Pacific Island countries.

Coral reef degradation and loss of marine biodiversity disrupt tourism and livelihoods, leading to economic losses and social tensions. Preserving and restoring ecosystems, along with promoting sustainable practices, are crucial for enhancing resilience in the face of climate change. Lastly, the significance of maritime zones and boundaries cannot be overlooked. Rising sea levels can lead to disputes over maritime jurisdiction, affecting the management of fisheries, oil and gas exploration, and other maritime activities. Collaborative negotiations at regional and international levels are vital to establishing secure boundaries and safeguarding resource rights for Pacific Island countries.

In conclusion, the analysis of climate change and fragility in Oceania highlights significant security challenges and risks for the region. Based on these findings, several recommendations can be made to address these challenges effectively. Firstly, there is a need to strengthen efforts in addressing displacement and forced migration by considering the needs and perspectives of affected communities. This can be achieved through providing resources for planned relocations, integrating traditional knowledge and practices, and facilitating cooperation between countries to ensure the smooth resettlement of displaced populations. Secondly, enhancing disaster preparedness, response mechanisms, and access to climate finance is crucial. This involves improving early warning systems, investing in resilient infrastructure,

and providing financial and technical support to SIDS for implementing climate adaptation measures. Thirdly, promoting sustainable agricultural practices and effective fisheries management is essential to ensure food security. This includes supporting traditional farming methods, diversifying agricultural production, and implementing measures to protect marine ecosystems and fish stocks. Preserving and restoring ecosystems vital to the blue economy is another important recommendation. Efforts should focus on coral reef conservation, mangrove protection, and sustainable tourism practices to ensure the long-term viability of the tourism industry and the livelihoods it supports. Finally, it is vital to facilitate collaborative negotiations and prioritize maritime boundary agreements. This involves engaging in dialogue and cooperation between island countries and neighboring countries to establish secure boundaries that protect resource rights and mitigate disputes over maritime jurisdiction.

Overall, addressing the complex security challenges arising from climate change and fragility in Oceania requires a comprehensive and collaborative approach. By integrating climate adaptation, peacebuilding, and sustainable development efforts, the region can build resilience, enhance social cohesion, and promote peace and stability for the future.

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Biography:

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