8

Environmental Security: the Case of the Pacific Island Countries and Dependent Territories

Kateryna HASHUTA

Abstract: We live in a rapidly changing world that brings new challenges and discoveries every day. International security evolves with these changes in the modern world. Despite the many resources and efforts focusing on ongoing security issues, environmental security is an area of security that remains conceptually unclear and theoretically underdeveloped. Due to the significant impact it has in our lives, it is vital that this area of security receives critical attention. The case of the Pacific Island Countries (PICs) and Dependant Territories (DTs) illustrate how the most fragile areas on earth suffer from the consequences of climate change and the challenges this man-made phenomenon poses to international security. This paper aims to contribute to the conceptual understanding of environmental security by examining the case of the Pacific Island Countries and Territories, who are struggling through a severe environmental crisis. It will also analyse the various threats to the security of the Pacific area looking comparatively at PICs and DTs, and conclude with policy recommendations.

Key words: environmental security, Pacific Island Countries, Dependant Territories, climate change, climate related migration

Introduction

This paper explores the case of the Pacific Island Countries (PICs) and Dependent Territories (DTs) and the main challenges for the security these territories face. In the past decade, climate change and environmental degradation have become the greatest security challenge facing humanity, with the higher probability of destruction and severe consequences. Although there remains no agreement on the conceptualisation of environment security, this paper defines it as, "The process of peacefully reducing human vulnerability to human-induced environmental degradation by addressing the root causes of environmental degradation and human insecurity."[401] Regardless of the lack of consensus concerning the definition of environmental security, there is increasing recognition between the links between security and climate change. Professor Græger from the Norwegian Institute of International Affairs and the University of Copenhagen, and former advisor to the Minister of Industry and Energy of Norway, provides four reasons for this. First, she argues that nature is something humanity depends on, and the consequences of the environmental degradation pose a great threat to human security. Second, she suggests environment degradation may cause conflicts over resources. Third, she posits, "predictability and control are essential elements of military security considerations, and these are also important elements in the safeguarding of the environment." For the fourth reason, she puts forth the establishment of the cognitive linkage between environment and security.[402] As Wen and Hou point out in their research, environmental security explores the ways to preserve the natural system integrity, when the human ecological environment stays stable and sustainable.[403]

---

[401] Floyd Rita, Matthew Richard, *Environmental Security: Approaches and Issues* (N.P: Taylor & Francis Group, 2013), 22.

[402] Nina Græger, "Environmental Security?", *Journal of Peace Research* 33, no. 1 (February 1996): 101-116, https://www.jstor.org/stable/425137

[403] Jiafeng Wen, Kang Hou, "Research on the progress of regional ecological security evaluation and optimization of its common limitations", *Ecological Indicators 127,* (August 2021): 1-10, https://doi.org/10.1016/j.ecolind.2021.107797

The line between the threats to humans and the threats to environmental security are thin, since humanity depends on the environment. Natural and man-made disasters can cause enormous damage, and, unfortunately, part of the population does not consider the environment as a priority. About one in eight (13%) of people interviewed for the global risk survey in 2019 said that climate change was "not a threat at all."[404] Rothe, a senior researcher at the Institute for Peace Research and Security Policy at the University of Hamburg, discusses this phenomenon in his article *Security as a Weapon: How Cataclysm Discourses Frame International Climate Negotiations*, stating, "[…]while empirical knowledge about the security implications of climate change is still insecure, this does not affect the growing public perception of climate change as a security issue."[405] He highlights the need of further research on the concept of environmental security to establish the exact framework and create a plan how to cope with the consequences of climate change and environmental degradation. As he notes, "We can see that the securitization of climate change is a highly contested, interactive process where different argumentations and very different security concepts are applied. The framing of climate change as a security threat in a narrow sense makes up only a part of this broader discursive struggle."[406] The importance of the implementation of climate change on the security is undeniable. In the next section, the example of the PICs and DTs will be discussed to show what the current issues are and possible consequences for the security.

---

[404] "World Risk Poll Reveals Global Threat From Climate Change," GALLUP, accessed 15 August 2022, https://news.gallup.com/opinion/gallup/321635/world-risk-poll-reveals-global-threat-climate-change.aspx.

[405] Delf Rothe, "Security as a Weapon: How Cataclysm Discourses Frame International Climate Negotiations," in *Climate Change, Human Security and Violent Conflict,* ed., (Springer-Verlag Berlin Heidelberg 2012), 243–258, https://doi.org/10.1007/978-3-642-28626-1_12

[406] Rothe, "Security as a Weapon: How Cataclysm Discourses Frame International Climate Negotiations," 253

Pacific Island and Dependent Territories: Current Situation

The case of the Pacific Island Countries and Dependent Territories is unique. The Pacific area and its islands are among one of the most affected territories by climate change. For example, the territories of Kiribati include "33 low-lying atolls spread across 3.5 million square kilometres of ocean [...]" and "[a]t their highest elevation, the islands average 1.8 metres (6 feet) above sea level."[407] The highest point of Tuvalu is 4.5 metres above sea level and "the rise in sea level will increase by up to 18 centimetres (0.6 feet) by 2030."[408] The most Pacific Island Countries and Territories (PICTs) are considered as fragile and are in danger of disappearing under water.

Table 3: Population of the Pacific Island Countries

Country	Year	Population, total (thousands)
Bahamas, The	2020	393.25
Fiji	2020	896.44
Kiribati	2020	119.45
Marshall Islands	2020	59.19
Micronesia, Fed. Sts.	2020	115.02
Nauru	2020	10.83
Palau	2020	18.09
Papua New Guinea	2020	8,947.03
Samoa	2020	198.41
Solomon Islands	2020	686.88
Tonga	2020	105.70
Tuvalu	2020	11.79
Vanuatu	2020	307.15

Source: "Population, total," World Bank Data, accessed May 22, 2022, https://data.worldbank.org/indicator/SP.POP.TOTL

[407] "Kiribati," COP23 Fiji, accessed May 22, 2022, https://cop23.com.fj/kiribati/

[408] "Tuvalu," COP23 Fiji, accessed May 22, 2022, https://cop23.com.fj/tuvalu/

Table 4: Population of the Dependent Territories of the Pacific Area

Dependent Territory	Year	Population, total (thousands)
American Samoa	2020	55.20
French Polynesia	2020	280.90
New Caledonia	2020	271.96
Northern Mariana Islands	2020	57.56

Source: "Population, total," World Bank Data, accessed May 22, 2022, https://data.worldbank.org/indicator/SP.POP.TOTL

In 2020, the overall population of the Pacific island small states was 2,528.96 thousand inhabitants.[409] From the tables provided above, we can see that the approximate amount of the population of PICs and DTs is 12,534.85 thousand inhabitants. This geographical area represents a small part of the global population that is directly affected by the climate change. The rise of sea levels and temperatures, soil erosion, extinction of coral reefs and other marine life, has led to the destruction of the infrastructure, created economic issues, and caused health problems. The World Health Organization (WHO) states, "Climate change is already impacting health in a myriad of ways, including by leading to death and illness from increasingly frequent extreme weather events, such as heatwaves, storms and floods, the disruption of food systems, increases in zoonoses[410] and food-, water – and vector-borne diseases, and mental health issues."[411] The article "Valuing the Global Mortality Consequences of Climate Change Accounting for Adaptation Costs and Benefits" provides data stating the "[…] average across the globe, the estimated full mortality risk of climate change […] is projected to equal ~85 deaths per 100,000 […] by 2100."[412] The sea level

[409] "Population, total," World Bank Data, accessed May 22, 2022, https://data.worldbank.org/indicator/SP.POP.TOTL

[410] Zoonoses are infections or diseases, which naturally transmit from animals to human.

[411] "Climate change and health," World Health Organization, accessed May 24, 2022, https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health#:~:text=Climate%20change%20is%20already%20impacting,diseases%2C%20and%20mental%20health%20issues.

[412] Tamma Carleton et al., "Valuing the Global Mortality Consequences of Climate Change Accounting for Adaptation Costs and Benefits," The Quarterly Journal of Economics, (April 2022): 1-54, https://doi.org/10.1093/qje/qjac020

rise is causing the land to sink, and people are having to move to other islands or countries. Alongside of this, has been an ongoing migration crisis due to socio-economic and environmental issue that is indirectly caused by climate change. Some PICs and DTs are included in the top-20 migration corridors as the countries of origin.[413]

Table 5: The migration corridor from New Caledonia (2020)

Country of origin	Year	Destination country	Amount of migrants
New Caledonia	2020	French Polynesia	2,236
		Australia	1,754
		Wallis and Futuna Islands	1,021
		Vanuatu	262
		Canada	234

Source: "World Migration Report 2022," International Organization for Migration, accessed May 20, 2022, https://worldmigrationreport.iom.int/wmr-2022-interactive/

Table 6: The migration corridor from Tonga (2020)

Country of origin	Year	Destination country	Amount of migrants
Tonga	2020	The United States	28,559
		New Zealand	28,331
		Australia	13,236
		Fiji	1,362
		American Samoa	1,292

Source: "World Migration Report 2022," International Organization for Migration, accessed May 20, 2022, https://worldmigrationreport.iom.int/wmr-2022-interactive/

[413] "World Migration Report 2022," the International Organization for Migration, accessed May 26, 2022, https://worldmigrationreport.iom.int/wmr-2022-interactive/

Table 7: The migration corridor from Samoa (2020)

Country of origin	Year	Destination country	Amount of migrants
Samoa	2020	New Zealand	57,947
		Australia	32,754
		The United States	27,186
		American Samoa	15,880
		Greece	455

Source: "World Migration Report 2022," International Organization for Migration, accessed May 20, 2022, https://worldmigrationreport.iom.int/wmr-2022-interactive/

Table 8: The migration corridor from Fiji (2020)

Country of origin	Year	Destination country	Amount of migrants
Fiji	2020	Australia	80,860
		New Zealand	64,271
		The United States	51,535
		Canada	26,559
		The United Kingdom	6,397

Source: "World Migration Report 2022," International Organization for Migration, accessed May 20, 2022, https://worldmigrationreport.iom.int/wmr-2022-interactive/

As Tables 3,4,5 and 6 illustrate, the number of migrants leaving PICs and DTs has been astonishing when comparing their numbers with the total population of these territories. After illustrating the magnitude of the problem, it is pertinent that the crisis be addressed now. Although many countries continue to maintain a human centric approach to protect their populations from the consequences of climate change, other states have changed their approach in recent years, adopting instead an environment security-based approach, with legislation including the rights of nature with the aim of protecting the environment. Ecuador for example, in 2008 adopted a new constitution that became the first country to codify the rights of nature. Article 10 in the Constitution states, "Persons, communities, peoples,

nations and communities are bearers of rights and shall enjoy the rights guaranteed to them in the Constitution and in international instruments. Nature shall be the subject of those rights that the Constitution recognizes for it."[414] Chapter 7 of the Constitution goes on to describe the specific rights of nature or "Pacha Mama", one of which is the right to be restored, "In those cases of severe or permanent environmental impact, including those caused by the exploitation of nonrenewable natural resources, the State shall establish the most effective mechanisms to achieve the restoration and shall adopt adequate measures to eliminate or mitigate harmful environmental consequences."[415] The United States, New Zealand, Canada, Mexico, and other states have embraced laws to protect the environment, but Ecuador was the one who did it at a constitutional level. It is an important step, since human centric approaches concentrate on human security and the protection of human interests. Nevertheless, by protecting the environment, people are also protecting themselves. Hence we cannot be selfish, nature must be a priority, because only then will people live in healthy conditions and prosperity.

The World Health Organization (WHO) estimates, "Between 2030 and 2050, climate change is expected to cause approximately 250 000 additional deaths per year, from malnutrition, malaria, diarrhoea and heat stress."[416] Environmental catastrophes related to the climate change bring huge economic losses. Climate change affects every aspect of the human security, and assuring a healthy environment is the most important step towards achieving economic, food, political, personal and community security.

Referring back to the situation of PICs and DTs, these territories are the smallest polluters; however, they suffer from the consequences of the CO2 emission of the bigger and richer countries. Figure 1 shows the top-5 states producing the highest amount of carbon emission in 2018 – China, the United States, India, Russia and Germany. In the case of the PICs and

---

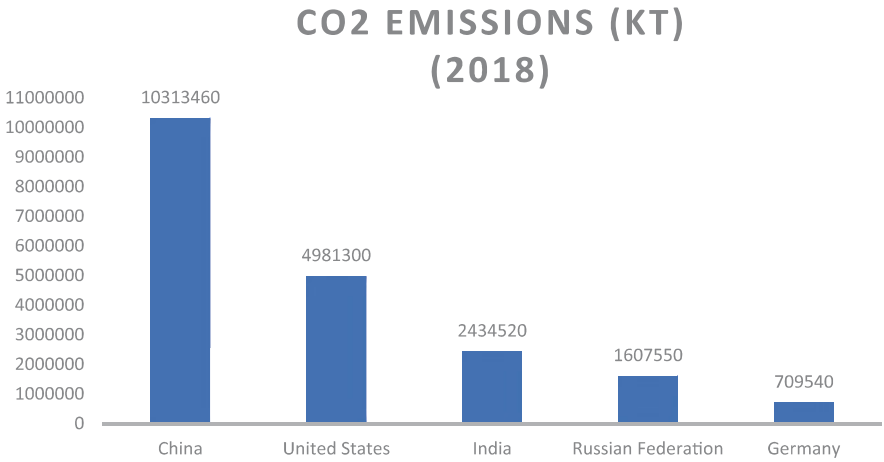
[414] "Constitution of the Republic of Ecuador," Political Database of the Americas, accessed May 29, 2022, https://pdba.georgetown.edu/Constitutions/Ecuador/english08.html.

[415] Political Database of the Americas, "Constitution of the Republic of Ecuador."

[416] "Climate change and health," WHO, accessed 15 August 2022, https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health.

DTs, there is almost no carbon emission produced. For example, the CO2 emission of Kiribati was 80 kt, of Tonga was 190 kt, and of Fiji was 1,900 kt in 2018. Comparing PICs carbon emission with the top five polluters illustrates the stark contrast.

Figure 6: The biggest CO2 emissions producers by states in 2018



Source: "CO2 emission (kt)," World Bank, accessed 31 May 2022, https://data.worldbank.org/indicator/EN.ATM.CO2E.KT?end=2018&locations=US-CN-RU-IN-DE&start=2018&view=bar

Perspectives of the Pacific Independent States and Dependent Territories

The PICs and DTs face the same challenges, but from the administrative perspective, their inhabitants have different options. While sovereign states such as Kiribati, Tuvalu, and Vanuatu have to cope with the environmental challenges and protect their citizens on their own, the inhabitants of DTs have the citizenship of developed states like France and the United States. They can therefor help their population to overcome the consequences of the extreme weather events and sea level rise. Meanwhile, the population of the PICs struggle to cope with environmental disasters, since they have limited financial capabilities.

The citizens of the PICs understand the importance of the environment security. Their population has from a time immemorable relied on nature and even now, it remains the most important part of their survival on these lands. In 2013, Kiribati issued the Kiribati Integrated Environment Policy (KIEP). It states, "The environment has emerged as a Key Policy Area (KPA) of the KDP [Kiribati Development Program] since 2008. This is a huge 'break through success' for the environment sector considering for the first time, the appearance of the environment on the development agenda for Kiribati at national level."[417] This paper describes the main challenges like climate change, island biodiversity conservation and management, waste management and pollution control, resource management and environmental governance, strategic objectives and policy towards each. The Kiribati Climate Risk and Climate Risk Communication Strategy also describes the key issues the country faces and main goals for their mitigation.[418] For example, "By 2017, climate change and climate risk considerations will be integrated in at least 50% of Ministerial operational and sector plans."[419] Nevertheless, PICs have a limited capability to improve the situation of the environment on their own, moreover contribute to the shape of international policies.

Although DTs sought at the international arena to influence environmental policies to cope with climate change, it was insufficient. One of the major turning points in the environment discourse came in 1962, with the release Rachel Carson's book *Silent Spring* focused on environmental protection, environmental problems, and argued that they were caused by synthetic pesticides in the United States. Later in 1972, the United Nations organized the Conference on the Environment in Stockholm, which "was the

---

[417] Government of the Republic of Kiribati, *Kiribati Integrated Environment Policy, accessed 10 July, 2022, https://policy.asiapacificenergy.org/sites/default/files/Kiribati%20Integrated%20Environment%20Policy%20%28KIEP%29.pdf*

[418] The Office of Beretitenti Government of Kiribati, *Kiribati Climate Risk and Climate Risk Communication Strategy*, by Tamara Logan, 2013 https://kiribati-data.sprep.org/system/files/KI37-Kiribati_Cimate_Change_Comms_Final%20%281%29.pdf, accessed June 6, 2022

[419] "*Climate Change and Climate Risk Communications Strategy 2014-2018*", Grantham Research Institute on Climate Change and the Environment, accessed June 6, 2022, https://www.climate-laws.org/geographies/kiribati/policies/climate-change-and-climate-risk-communications-strategy-2014-2018

first world conference to make the environment a major issue."[420] It was attended by the representatives of the 113 states, NGO's, international organisations, and so forth. The result of the conference was the creation of the Stockholm Declaration and Action Plan for the Human Environment, which contained 26 principles on the solving environmental issues.[421] Then the United Nations Conference on Environment and Development (UNCED) was organised in Rio de Janeiro (1992), also known as the "Earth Summit". The conference included a large number of participants, covered a wide range of issues, and sought to create a more comprehensive plan of action. As the UN notes,

> *One of the major results of the UNCED Conference was Agenda 21, a daring program of action calling for new strategies to invest in the future to achieve overall sustainable development in the 21st century. Its recommendations ranged from new methods of education, to new ways of preserving natural resources and new ways of participating in a sustainable economy.*[422]

Fifty years later, the UN organised the Stockholm+50 Conference. Developed countries such as France, who control overseas territories in the Pacific Ocean, sought to prevent catastrophic consequences of climate change by pushing for stricter policies on environmental protection i.e. cancelling domestic flights. Despite international and local efforts, humanity have not done enough to save the environment.

The temperature rise is accelerating faster than expected. According to the IPCC, global warming cannot be allowed to exceed 1.5°C. IPCC goes on to add, "Even temporarily exceeding this warming level will result in additional severe impacts, some of which will be irreversible. Risks for society will

---

[420] "*United Nations Conference on the Human Environment, 5-16 June 1972, Stockholm,*" United Nations, accessed June 14, 2022, https://www.un.org/en/conferences/environment/stockholm1972.

[421] United Nations, "*United Nations Conference on the Human Environment, 5-16 June 1972, Stockholm.*"

[422] "*United Nations Conference on Environment and Development, Rio de Janeiro, Brazil, 3-14 June 1992*," United Nations, accessed June 14, 2022, https://www.un.org/en/conferences/environment/rio1992.

increase, including to infrastructure and low-lying coastal settlements."[423] It requires cutting carbon emission by 45 percent by 2030, and achieving net zero emissions by 2050.[424] Nevertheless, the UN Secretary-General António Guterres stated, "[…] according to current commitments, global emissions are set to increase almost 14 per cent over the current decade."[425] Humanity can already feel and see changes, and rather than take radical emergency measures, we keep worrying about development more than nature. The PICs and DTs are not the only places that can disappear under water. Nearby, in the Indian Ocean, is the Indonesian capital, Jakarta, that will eventually need to be replaced due to the sea level rise. The city is home to10 million people, referred to as the fastest sinking city in the world, that could be entirely submerged by 2050.[426] There is a solution to move the capital 1,300 km away. However, the PICs simply do not have enough space to run away from the rising water. The idea to run away from the existing problems might work in the short run, but in the future, there will be no place to hide from the disasters caused by climate change.

From the human security perspective, the inhabitants of the DTs are safer than people from the PICs. Citizens of territories belonging to states such as France, Australia or the United States, are under their protection; whereas "disappearing states" are no longer able protect their citizens once the states cease to exist. Although some states will be able to avoid the same fate, it is likely that they can partly or completely lose their lands. Therefore, global cooperation is urgently needed, to protect our planet from climate change, and by doing so, we are protecting ourselves. People depend on the environment, and therefore, it is imperative we fight the environmental degradation. Like the Environmental Justice Foundation (EJF)

---

[423] IPCC, "*Climate change: a threat to human wellbeing and health of the planet. Taking action now can secure our future,*" accessed June 28, 2022, https://www.ipcc.ch/site/assets/uploads/2022/02/PR_WGII_AR6_english.pdf.

[424] UN News, "IPCC adaptation report 'a damning indictment of failed global leadership on climate," accessed June 18, 2022, https://news.un.org/en/story/2022/02/1112852.

[425] UN News, "IPCC adaptation report 'a damning indictment of failed global leadership on climate."

[426] BBC, "Jakarta, the fastest-sinking city in the world," accessed June 18, 2022, https://www.bbc.com/news/world-asia-44636934.

states, "We all depend on the natural environment for our livelihoods and well-being, and environmental security is a fundamental human right."[427]

The Australia Climate Change Action Strategy describes the long term planning and investment to respond to the climate change issues. It also considers the PICs and the assistance, which is provided to these countries in order to meet Sustainable Development Goals. "In Australia's neighbourhood," the Department of Foreign Affairs and Trade posit, "Pacific island countries are highly vulnerable to the adverse consequences of climate change. The Pacific islands Forum Boe Declaration acknowledges climate change as the greatest threat to the livelihoods, security, and wellbeing of peoples of the Pacific."[428] It provides information on how development assistance commitments work, the amount of funding provided for PICS in the past years, and highlights critical action needed such as building roads and bridges in response to the extreme weather conditions, building climate change resilient schools, and establishing programs to collect and analyse data on the climate in the region.

Each state takes measures based on their capabilities: some more effective, some less. The problem is there is no special concept and international legislation on the environmental protection, which would enforce the binding agreement and control its execution. The fact is that previous international and local agreements, programs, protocols, etc. aren't as fruitful as they are supposed to be. Most were created with the consideration of human's population and development, rather than nature's needs, despite that it must be the priority since people depend on the environment. Different programs, which are created in order to protect environment are making life more comfortable for the people rather than fixing the problem that is that those comforts will be under water in 50-100 years.

From the perspective of the PICs, they have to establish their own policy on the environmental security. Considering the size of these states, they usually establish regional cooperation to be able to face the environmental challenges.

---

[427] EJF, "Who we are," accessed June 19, 2022, https://ejfoundation.org/who-we-are.

[428] Australian Government, Department of Foreign Affairs and Trade, "*Climate Change Action Strategy," accessed July 3, 2022, https://www.dfat.gov.au/sites/default/files/climate-change-action-strategy.pdf.*

Conclusion

The current state of affairs with climate change must end. As this paper has demonstrated, inequalities persist between developed states – those representing the world's greatest polluters, and developing countries – those who cause the least amount of environmental degradation, but face the most severe consequences of climate change. Although PICs and DTs share the same location, they face different fates – the former their homes, the later their country. Drastic measures are needed to prevent the disappearance of these territories. At minimum the international community must urgently take steps to assist PICs and DTs, to be able to reach a point of development when they will be able to fight environmental degradation on their own.