

CLIMATE, PEACE, AND SECURITY IN THE PACIFIC-ASIA REGION

Navigating the intersecting challenges of climate change, environmental security threats, and conflict by uplifting positive peacebuilding solutions that will turn the tide towards just, sustainable, and resilient futures.



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ABSTRACT

Climate change has directly uprooted the lives and livelihoods of individuals and communities around the globe as weather patterns become more erratic, sea levels rise, and global temperatures skyrocket. Yet, climate change not only directly impacts humans; it also functions as the framework for nearly every other security issue humans face today. In a global system of colonial legacies, conflict, and exploitation, certain regions and communities bear a greater burden of these climate change consequences. Even though many smaller nations in the Pacific-Asia region have contributed little to the creation of climate change, the region bears the brunt of compounded consequences. The Pacific-Asia region is also heavily under-resourced in its work toward climate mitigation, adaptation, and resilience, making it particularly pertinent to the nexus of climate, peace, and security.

This research centers on the lives and livelihoods of communities on the frontlines of climate change in the Pacific-Asia region, addressing the link between climate change, security, and positive peacebuilding. Part 1 will delve into six environmental security threats that sit at the heart of this nexus: (1) global system of disposability, (2) global fishing trends, (3) land-based food systems and self-sufficiency, (4) military spending and military occupation in Pacific Island nations, (5) climate-induced geopolitical consequences, and (6) climate-related displacement. Part 2 will focus on peacebuilding solutions to these environmental security threats, including responses like (1) inclusion of women, Indigenous communities, and other marginalized groups in decision-making, (2) community-based coalitions working from the ground up, and (3) funding climate resilience and adaptation in frontline communities. Examples provided here are specific and regional, working to connect and uplift emerging and important patterns that demonstrate how just, peaceful, and sustainable long-term climate change solutions can fundamentally occur. Such responses work to deconstruct existential environmental security threats by centering positive peace, in turn forming the groundwork for better climate mitigation, adaptation, and resilience in the Pacific-Asia region and across the globe.

Positive peace directly contrasts climate change—a threat multiplier—and instead is a justice multiplier that works to deter conflict before it begins.

INTRODUCTION TO THE NEXUS OF CLIMATE, SECURITY, & PEACE

During the summer of 2022, extreme flooding devastated Pakistan. With days topping 123°F (50°C), melting glaciers deluging rivers, and precipitation at 190% of the nation's normal rainfall, a third of the country became submerged in water.¹ Thirty million people were displaced from their homes as the flooding killed and injured 15,000.¹ Homes, agricultural lands, and infrastructure across the nation were damaged and destroyed—the nation continues to reel from the effects of that summer's deadly crisis.

As the climate crisis worsens, so does flooding and extreme weather. Research shows that climate change has made heavy rainfall in Pakistan more likely; rising global temperatures have caused many of the over 7,000 glaciers across the nation to begin quickly melting,² creating catastrophic downstream effects.³ Unusually severe tropical typhoons, cyclones, droughts, floods, and heat extremes are ravaging the Pacific-Asia region at an alarming and unprecedented rate—the **CLIMATE RISK INDEX 2000-2019** measures that six of the top ten countries most affected by extreme weather reside in the Pacific-Asia region.⁴

CLIMATE RISK INDEX 2000-2019

The ten countries most affected by weather-related loss events -- including storms, floods, heat waves, and other cases of extreme weather -- from 2000 to 2019 (annual averages).

CRI 2000-2019 (1999-2018)	Country	CRI Score	Fatalities	Fatalities per 100,000 inhabitants	Losses in million US\$ PPP	Loses per unit GDP in %	Number of events (2000-2019)
1. (1)	Puerto Rico	7.17	149.85	4.12	4,149.98	3.66	24
2. (2)	Myanmar	10.00	7,056.45	14.35	1,512.11	0.80	57
3. (3)	Haiti	13.67	274.05	2.78	392.54	2.30	80
4. (4)	Philippines	18.17	859.35	0.93	3,179.12	0.54	317
5. (14)	Mozambique	25.83	125.40	0.52	303.03	1.33	57
6. (20)	The Bahamas	27.67	5.35	1.56	426.88	3.81	13
7. (7)	Bangladesh	28.33	572.50	0.38	1,860.04	0.41	185
8. (5)	Pakistan	29.00	502.45	0.30	3,771.91	0.52	173
9. (8)	Thailand	29.83	137.75	0.21	7,719.15	0.82	146
10. (9)	Nepal	31.33	217.15	0.82	233.06	0.39	191

Graphic Source: The Global Climate Risk Index, German Watch⁴

Climate-driven extreme weather poses an inherent risk to the security of affected communities. These disasters can destroy food supplies, decrease access to clean water, and damage infrastructure, among other first-order security impacts. Systemic injustices, poor existing infrastructure, insufficient access to resources, and a lack of community preparation to manage extreme weather can be aggravated by and exacerbate many of these first-order security impacts. While extreme

We have to turn the tide of destructive climate change towards swells of peace and connection, not only to each other but to the lands and waters that sustain us. weather exacerbates first-order security impacts, there are additional risks embedded in the second and third-order effects of such disasters. According to the United States (US) Department of Defense, extreme weather events are an issue of national security, a factor that can make under-resourced populations "susceptible to recruitment and radicalization by extremist groups," thus stoking potential for conflict.⁵ Yet extreme weather

is only one such consequence of climate change that is deeply intertwined with conflict; rising sea levels submerge coastal communities, water pollution causes illnesses, and the decimation of biodiversity undermines livelihoods and cultures that center around certain foods, plants, and animals. These stressors and many others affect the lives, livelihoods, and security of humans and society. Thus, when the United Nations (UN) Security Council recognized climate change as a **THREAT MULTIPLIER** in 2019, it emphasized what more than a decade of research signified: climate change is a threat to the conditions that sustain peace and, in turn, to the very well-being and **SECURITY OF HUMANS** around the globe.⁶

THREAT MULTIPLER

Coined in 2007 by the Center for Naval Analyses Military Advisory Board, the term "threat multiplier" can be used to describe the ways in which climate change drives instability and interacts with other pre-existing security threats. The Center for Climate and Security states that "projected climate change will seriously exacerbate already marginal living standards in many Asian, African, and Middle Eastern nations, causing widespread political instability and the likelihood of failed states. Unlike most conventional security threats that involve a single entity acting in specific ways and points in time, climate change has the potential to result in multiple chronic conditions, occurring globally within the same time frame."

Some critics of this framework, however, cite concerns that the securitization of climate change might lead to policies that focus on "climate security impacts through the lens of violence," in turn "obscuring the other dimensions of human life and human society."⁷

HUMAN SECURITY

"Human security is an approach to assist Member States in identifying and addressing widespread and cross-cutting challenges to the survival, livelihood, and dignity of their people." General Assembly Resolution 66/290 provides a comprehensive understanding of this term in 2012, calling for "people-centered, comprehensive, context-specific and prevention-oriented responses that strengthen the protection and empowerment of all people." Human security is deeply connected to national security; without the security of the human lives and livelihoods that comprise it, a nation-state is inherently insecure.

LINKS BETWEEN CLIMATE, CONFLICT, & SECURITY

The climate crisis exacerbates conflict, increasing competition over ever-dwindling resources, displacing people from their homes, and leaving communities stranded in the wake of extreme and destructive weather. A 2018 World Bank study estimates that nearly 40 million people could be internally displaced by climate in South Asia by 2050. Furthermore,

Environmental degradation and climate change generate second-order environmental security threats and heightened risk of conflict as well. Ocean acidification, global warming, extreme weather events, and effects of first-order environmental security threats cause communities to lose their basic sources of income, food, and water, provoking social, geopolitical and economic responses.

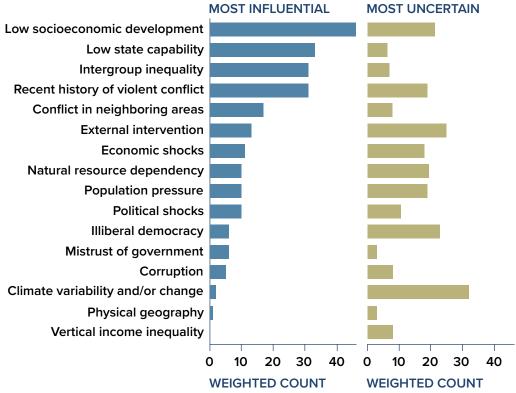
climate change could push 7.5 million people across the Pacific-Asia region into poverty by 2030 if our current policies continue.¹¹ How might this destabilize the region? What effects will these population shifts create within one generation?

Recent literature suggests there are SIXTEEN DRIVERS OF CONFLICT in a nation, ranging from low socioeconomic development to economic shocks, recent histories of violent conflict, and climate variability. Climate change works as a structural force, directly and indirectly shaping and abetting conflict as families are forced to migrate from their homes, livelihoods are lost, levels of economic

well-being dissipate, and access to resources disintegrate. A half-degree Celsius increase in temperature is associated with a 10-20% heightened risk of deadly conflict, including a heightened risk of wars, armed insurgencies, genocides, gang violence, riots, terrorist attacks, crime, and interpersonal abuse.¹³

SIXTEEN DRIVERS OF CONFLICT

Causal factors that have influenced violent conflict and uncertainty regarding their influence.



Graphic Source: Factors that drive conflict risk, Nature¹²

Rising sea levels, hazardous weather events, and disasters displace communities from their homes, creating tension as resources and good governance are stretched thin. Droughts and other climate shocks in India, for instance, have increased support for rebel or government groups and subsequently increased the intensity of civil conflict in areas affected by ongoing conflict between communist Naxalites and the Indian government.¹⁴ Women there face a disproportionate impact of consequences stemming from climate-induced conflict, often forced to endure sexual and gender-based violence and inequities that range from trafficking, sexual slavery, and forced marriage to limited mobility, education, and employment.¹⁵

Moreover, global systems of exploitation and colonization place the brunt of environmental consequences not on those contributing significantly to the problem–wealthy, industrialized countries–but on frontline communities like Pacific Islands nations, which account for merely 0.03% of total global emissions.¹⁶ This unequal distribution of resources, power, and environmental consequences across and within countries can cause internal state instability and change the power balance between states, weakening the global system's stability as a whole.¹⁷ The Solomon Islands, for instance, which have lost fisheries, tourism, and whole islands to rising sea levels and global heating, signed a security deal in 2022 with China to work to maintain internal security and fight climate change.¹⁸ This deal shifts the power balance between these states, allowing China a greater influence over the security of the Solomon Islands by granting China the ability to send its armed police to engage in law enforcement activities.¹⁸ From the Solomon Islands to India and Taiwan, climate change is changing the geopolitical landscape of the Pacific-Asia region and could introduce new national security risks.

For Pacific Island nations who have experienced imperial legacies of conflict that continue today, additional provocation and increased militarization in the region exacerbate losses that are difficult to quantify yet are persistent threats of direct and residual risk for disempowered peoples and oppressed communities. To resist threats to global security, climate resilience and adaptation measures must be integral to security planning. The international sphere cannot continue to reach only for **NEGATIVE PEACE**. Negative peace practices alone will only prolong a delicate, fragile, and unsustainable global system that disproportionately affects frontline communities, like those in the Pacific Islands.

Methods for reducing climate-conflict risks can and must include actions like state capacity building, economic diversification, formal human rights laws, and resilience building.¹² These approaches, among others, can be summarized by a larger overarching framework: **POSITIVE PEACE.** To reduce climate-conflict risks, we must proactively build and promote positive peace. Such a system builds the foundation for a sustainable, peaceful system that works to mitigate conflict at its root.

NEGATIVE VS. POSITIVE PEACE

While **negative peace** is used to describe the absence of direct violence, **positive peace** seeks to rebuild societal structures that mitigate conflict from the outset.¹⁹ Positive peace reimagines an environment whose attitudes, institutions, and structures work to create a just system that addresses the underlying causes of conflict and "allows human potential to flourish."²⁰

WHAT IS POSITIVE PEACE?

Positive peace is defined as "the attitudes and structures that create and sustain peaceful societies." Positive peace directly contrasts climate change—a threat multiplier—and instead is a justice multiplier that works to deter conflict before it begins. The 2022 Positive Peace Report cites eight principles of positive peace: (1) a well-functioning government, (2) equitable distribution of resources, (3) free flow of information, (4) good relations with neighbors, (5) high levels of human capital, (6) acceptance of the rights of others, (7) low levels of corruption, and (8) a sound business environment.

THE EIGHT PILLARS OF POSITIVE PEACE

Well-Functioning Government

A well-functioning government delivers high-quality public and civil services, engenders trust and participation, demonstrates political stability and upholds the rule of law.

Sound Business Environment

The strength of economic conditions as well as the formal institutions that support the operation of the private sector. Business competitiveness and economic productivity are both associated with the most peaceful countries.

Low Levels of Corruption

In societies with high levels of corruption, resources are inefficiently allocated, often leading to a lack of funding for essential services and civil unrest. Low corruption can enhance confidence and trust in institutions.

Acceptance of the Rights of Others

Formal laws that guarantee basic human rights and freedoms and the informal social and cultural norms that relate to behaviors of citizens.

Equitable Distribution of Resources

Peaceful countries tend to ensure equity in access to resources such as education and health, as well as, although to a lesser extent, equity in income distribution.

Free Flow of Information

Free and independent media disseminates information in a way that leads to greater openness and helps individuals and civil society work together. This leads to better decision-making and more rational responses in times of crisis.

Good Relations with Neighbors

Peaceful relations between communities or nations are important to maintaining and improving peace. Good relations facilitate trade and reduce the need for military and policing.

High Levels of Human Capital

A skilled human capital base reflects the extent to which societies educate citizens and promote the development of knowledge, thereby improving economic productivity, care for the young, enabling political participation and increasing social capital.

Graphic Source: Principles of Positive Peace, Institute for Economics and Peace⁹² While principle 3, free flow of information, and principle 8, sound business environment, improved over the last decade, principle 7–low levels of corruption—has deteriorated globally.¹⁹ In regions with low levels of positive peace, natural disasters kill 13 times as many people than in regions with higher levels, emphasizing the importance of positive peace in building climate resilience.²¹ Societies' attitudes, institutions, and structures—like level of social cohesion, economic conditions, and quality of infrastructure—will impact the outcome of these natural disasters, like the extreme flooding in Pakistan in 2022 that decimated communities across the nation.

Building positive peace in the Pacific-Asia region is essential to counteract the threat of climate change to human security. However, many of the globe's current systems and methods of resource extraction and use infringe upon the potential for positive peace in this region. For instance, inequitable and exploitative mining practices in Cambodia, the Philippines, and elsewhere across the Pacific-Asia region disproportionately affect women, whose traditional roles and responsibilities as caretakers and providers are severely impacted as the mining industry takes away access to and pollutes the land, food, water, and other resources.²² These practices violate several principles of positive peace, namely, equitable distribution of resources and acceptance of the rights of others. **ENVIRONMENTAL SECURITY THREATS** like exploitative resource management exacerbate climate change and increase the risk of conflict. However, positive peace solutions can mitigate some of these threats. In Cambodia, for instance, Indigenous and women advocates stand up to mining company representatives, angered by water pollution, lack of public information regarding mining practices, and the overexploitation of their communities while the profits of exploitative mining are sent elsewhere.²³ By directly involving those affected by resource extraction in the decision-making process, it is possible to improve positive peace principles by creating a more equitable distribution of resources and acceptance of the rights of others, in turn working to rebuild a more just and equitable global system that takes into account all voices and lived experiences.

ENVIRONMENTAL SECURITY THREAT

The Center for Climate and Security explains that "Environmental security can be understood as the interactions between security and environmental degradation. It includes preventing or repairing military damage to the environment as well as assessing the risk of instability due to resource scarcities, environmental degradation, or biological threats." This research delves into six environmental security threats, including a global system of disposability, global fishing trends, land-based food systems, military spending/occupation of Pacific-Asia nations, climate induced geopolitical consequences, and climate-related displacement.

ENVIRONMENTAL SECURITY THREATS IN THE PACIFIC-ASIA REGION

Like humanitarian relief, development aid, and international peacekeeping, environmental security issues are increasingly framed in the context of an "existential security threat," or systems and conditions that by nature threaten survival or one's basic needs. Our changing climate is intrinsically an existential threat. Due to human exploitation of natural resources, all life forms on Earth are in constant threat of dying. Whether from a landslide borne from a deadly typhoon in the Philippines, polluted air that affects the health of four billion people across the Pacific-Asia region, or conflict amongst communities fighting over limited water, environmental security risks threaten survival and flourish across the globe. The following subsections have been divided into two distinct categories: (1) first-order environmental security threats that catalyze environmental change and global insecurity and (2) second-order environmental security threats that are consequences of environmental change and first-order threats that jeopardize global security.

ENVIRONMENTAL SECURITY THREATS IN THE PACIFIC-ASIA REGION

First-Order Environmental Security Threats

Threats that actively exacerbate and perpetuate environmental degradation, abetting a heightened risk of human insecurity and conflict



Global Systems of Disposability



Land Based Food Systems & Self-(In)sufficiency



Global Fishing Trends



Military Spending & Occupation of Pacific-Asia Nations

Second-Order Environmental Security Threats

Threats that stem from first-order environmental security threats and climate change, in turn magnifying human insecurity and conflict



Climate-Induced Geopolitical Consequences



Climate-Related Displacement

Many current global systems can be defined as environmental security threats because they are actively exacerbating and perpetuating environmental degradation, abetting a heightened risk of human insecurity and conflict. These structures are

Lowered agricultural productivity and food insecurity can also increase rates of climate-related displacement, as families and communities leave unviable land in search of a more dependable livelihood and a healthier life for themselves and their children.⁴⁷

first-order security threats, including but not limited to a broad global system of disposability, exploitative global fishing trends, insecure food systems, and military spending and occupation in regions like the Pacific.

Environmental degradation and climate change also generate second-order environmental security threats and a heightened risk of conflict. Ocean acidification, global warming, extreme weather events, and effects of first-order environmental security threats cause communities to lose their basic sources of income, food, and water, provoking social, geopolitical, and

economic responses. This research examines two examples of second-order security consequences: changing geopolitical landscapes and climate-induced displacement.

FIRST ORDER ENVIRONMENTAL SECURITY THREATS

Global "System of Disposability"

A history of colonization and exploitation by the Global North has led to the creation of "sacrifice zones," communities that governments have demonstrated they are willing to sacrifice to retain power. Within the United States, sacrifice zones are primarily economically oppressed, and Black, Indigenous, and people of color (BIPOC) communities

are forced to bear the brunt of environmental consequences, from water contamination from toxic waste disposal sites to hazardous cancer-causing gas from nearby factories. ²⁵ Clare, in his book "Notes on Natural Worlds, Disabled Bodies, and a Politics of Cure," states that those who don't fit the heteronormative, white, well-off narrative are "disposable and abnormal, bodies to eradicated." ²⁶ This "system of disposability," as he calls it, applies not only within the bounds of the United States but also globally. Less wealthy, smaller communities—like Pacific Island nations—are devalued by those in power, so the perception becomes systematically "acceptable" to sacrifice these communities. Disposability is thus fundamentally related to power imbalances and the underpinnings of capitalism upheld by the Global North, inferring a complex system of who should or could sacrifice for whom.

When colonizers came to Hawai'i, for instance, they pushed Kānaka Maoli (Native Hawaiians) from their homes, whose lives and livelihoods were sacrificed for the anticipated benefits of capitalism. The Kānaka Maoli population was decimated by 80-90% as new diseases killed en masse, more than two million acres of their ancestral lands were illegally seized, and their citizens were ultimately politically

New areas of research that broaden opportunities and entry points for women, youth, frontline, BIPOC, and gender-diverse communities must be resourced and funded.

repressed after the overthrow of Queen
Lili'uokalani in 1893. A once self-sustaining independent nation, with peaceful governance and thriving resources, is now interlocked in complicated dependencies with the United States for its food, goods, and economy. This history of devaluation of the Kānaka Maoli has created a zone for "acceptable sacrifice" according to the United States government, who have placed military bases in the islands 5,000 miles from

Washington D.C. that continue to destroy the environment and heritage sites. This includes military sites like that at Pōhakuloa, where a live-fire range in a conservation district threatens native Hawaiian species and archaeological sites on Hawai'i Island.²⁷ Military sites like this also pose health concerns to Native Hawaiian communities, like Red Hill Naval Facility on Oʻahu on the sacred lands of Kapūkakī.²⁸ Furthermore, Rim of the Pacific (RIMPAC) international maritime warfare exercises are based in Hawaiʻi each year, which have exacerbated environmental degradation, historically increased sexual exploitation during military port visits, militarized Indigenous land, water, and air, and increased COVID-19 risks in 2020.²⁹ Military occupation in Hawaiʻi and elsewhere across the Pacific-Asia region marks one of many power imbalances that underpin the current system of disposability pervading the globe.

In 1966, almost 3,000 miles south of the Hawaiian Islands, France began nuclear testing on the islands of Moruroa and Fangataufa. Thirty years later, France had conducted 193 tests, exposing over 110,000 people to nuclear radiation—this equates to nearly 40% of the islands' population today.³⁰ Nuclear colonialism throughout Polynesia not only left behind massive bodily, genetic, and developmental damages, from cancer and leukemia to birth defects in the next generation, but also deeply transfigured the economic, political, and cultural spaces of Polynesian islands. Today, 70% of the population lives on the island of Tahiti, where the nuclear industry is centered.³¹ As social, cultural, and political structures change, France is also downplaying the risks associated with nuclear testing. During the first nuclear test conducted just off Moruroa in 1966, the French were aware that the wind was blowing southeast towards the Gambier Islands. Yet, they did little to protect the 450 inhabitants of Mangareva who remained directly in the path of nuclear radiation.³⁰ Another explosion in 1974 was deposited directly on the 80,000 residents of Pape'ete, Tahiti, who were told nothing of the danger.³⁰ These are merely two of nearly 200 nuclear tests that not only caused horrific health problems for inhabitants of islands and atolls in the Pacific but also took agency from inhabitants to recognize and be in charge of the health and sustainability of

their lands and communities. To this day, France is still unwilling to accept responsibility for the harm it has caused to Polynesians. France, the United States, and other nations across the Global North are responsible for harmful nuclear testing, extractive colonialism, and many other forms of historical exploitation that have contributed to the formation of the global system of disposability.

At the global level, the largest greenhouse gas emitters like China, the United States, India, and the European Union, contribute nearly 50% of total greenhouse gas emissions, yet continue to make only marginal efforts towards lowering their emissions.³² In turn, regions like the Pacific Island nations (including The Republic of Fiji, the Republic of the Marshall Islands, Vanuatu, and the Solomon Islands, among others) and Southeast Asia (including the Philippines, Indonesia, Vietnam, and Myanmar, among others) are forced to endure the disproportionate burden of emission consequences, from sea level rise, flooding, and landslides wiping out their homes, to lack of water and malnutrition. Acting president and CEO of Alliance for Peacebuilding, Liz Hume, stated in a panel discussion for the Wilson Center that these big emitters are not going to reduce their emissions in the next ten years, so it is essential that communities and governments learn how to adapt and become resilient to effects of climate change.¹³ Her matter-of-fact depiction of the continued inaction of major powers solidifies that the global system of disposability exacerbates environmental consequences. If the brunt of climate change effects were equally distributed globally, major emitters would be more affected and thus more inclined to change their practices. Yet, because of our currently immutable global system of disposability, it is first and foremost essential that the Pacific-Asia region become resilient to climate change effects, such as the devastating effects that could befall important resources like fisheries.

Global Fishing Trends

Ocean warming, deoxygenation, and acidification are causing the migration of fish and zooplankton, in turn transforming the ways that traditional fisheries can function.³³ Pacific islands are particularly affected by the changing ocean, as coastal fishing is essential for food security, welfare, culture, and employment.³³ In Hawai'i, Tahiti, and

other islands that have become tourist destinations, fish are scattering not only due to exploitation but also because of non-extractive recreation, like paddle boarders and kite surfers.³⁴ In Mākua Bay on the island of Kaua'i, Hawai'i, Vaughn states that "as children, they were taught not to walk along the shore, lest shadows or footsteps scare baby fish

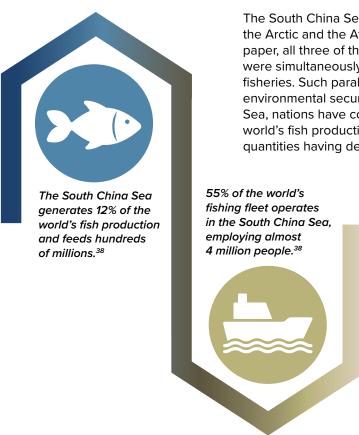
Current Pacific-Asia food systems that have been shaped and forced to alter traditions by colonizing influences are not resilient to future climate effects. These conventional practices of trade, insufficiency, and extraction leave communities stranded without nutritious foods, fracture ancient sharing systems, and result in near-complete reliance on global imports.

from the shallows into deeper water predators could reach."34 Yet today, Mākua Bay is visited by 750,000 tourists every year, disrupting fish populations and the livelihoods of local fisherpeople who once fished in this bay.34 In Tonga, total fisheries production has decreased by 23% from 1990 to 2018; in Vanuatu, fisheries production has decreased by 75%.33 Throughout Polynesia, traditional methods of fisheries management have been lost to European

colonization and exploitation, such as the practice of rāhui that temporarily closes natural areas to restore a natural resource.³⁵ More recently, however, communities across Polynesia are looking

to reinstate rāhui as a proven method of sustainable resource management.³⁵

In international waters, illegal, unreported, and unregulated (IUU) fishing accounts for half the catch in the global ocean.³⁶ This unregulated system not only deprives ocean countries of income and weakens their food security, like many Pacific Island and South Asian nations, but it also ignores sustainability and ecological safeguards, exacerbating the effects of climate change on fish populations through overexploitation.³⁶ Furthermore, IUU fishing is a direct cause of global conflict and insecurity, including piracy, human trafficking, and drug running.³⁶



The South China Sea is one of three "fish security epicenters," the others being the Arctic and the African Great Lakes.³⁷ At the time of the publication of this paper, all three of these regions were experiencing high levels of tension as they were simultaneously elevated in the need for greater security regarding their fisheries. Such parallels are indeed examples of the links between conflict and environmental security in the context of the changing climate. In the South China Sea, nations have competed over fisheries for decades, which generate 12% of the world's fish production, employ 4 million, and feed hundreds of millions.³⁷ With fish quantities having depleted by as much as 95% since the 1950s, China, Indonesia,

> Vietnam, Malaysia, and the Philippines have become increasingly competitive in the fight for fish resources, threatening to destroy foreign fishing vessels.³⁷ Climate change is a clear threat multiplier in the South China Sea. Any further fish migration or stock depletion could provoke immense conflict among the hundreds of thousands of vessels operating in the region.

International fishing trends and the effects of climate change on coastal fisheries threaten global security and exacerbate environmental change. Maxine Burkett, US deputy assistant secretary of state for oceans, fisheries, and polar affairs explains that "cascading, overlapping issues [of supply and environment] are going to shape foreign policy."38 Yet, fisheries are not the only resource affected by climate change; land-based food systems have also been threatened.

Land-Based Food Systems & Self-(In)sufficiency

Over the last decade, food insecurity has steadily increased, and in 2021, an estimated 1.05 billion people in the Pacific-Asia region faced inadequate food access.³⁹ For coastal communities across the Pacific-Asia region, erosion, contaminated groundwater, extreme weather, and heat stress can contribute to agricultural loss.⁴⁰ South Asia is in particular danger of increased food insecurity in the coming decades as crop yields lower and prices for irrigated crops rise.¹⁷ Climate change will affect agricultural productivity as temperatures and weather patterns fluctuate, altering growing

seasons, disease sensitivity, pollination, and beyond.⁴¹ However, current food systems in the Pacific-Asia region are not only affected by changing climates. Colonization and the global system of disposability transformed food systems across the region into monoculture exports, reducing the region's ability to provide for its communities. Examples spread from rice production in Indonesia to sugar plantations in Hawai'i. Current Pacific-Asia food systems that have been shaped and forced to alter traditions by colonizing influences are not resilient to future climate effects. These conventional trade practices, insufficiency, and extraction leave communities stranded without nutritious foods, fracture ancient sharing systems, and result in near-complete reliance on global imports.

In areas across the Pacific, a history of colonization has caused once flourishing and diverse crops to become a monoculture of exports. In Hawai'i, for instance, Kānaka Maoli terraced their land using three farming systems: lo'i, or irrigated pond fields, dryland agriculture, and rainfed agroforestry. 42 Before Western colonization, 6% of Hawai'i's land could produce 1 million metric tons of feed, feeding 1.2 million people or 86% of the islands' population today.⁴³ However, due to the influx of sugar and other monoculture plantations created as a result of Western colonization, today's current active crop and pasture land "covers three times more than that it did [pre-Western colonization] and only produces 151,700 metric tons of food."43 That is only 15% of what Kānaka

Maoli once produced. Today, Hawai'i imports 85% of its food, leaving it at risk for serious consequences if shipping

supplies are disturbed, such as shipping supply disruptions due to the COVID-19 pandemic.⁴⁴ A Feeding America study indicated that since 2019, the number of Hawai'i residents who face food insecurity has increased by 51%.⁴⁵ Furthermore, in 2021 "one in four children across the archipelago were at risk of going hungry."⁴⁶ These rates of food insecurity, nutritional deficiency, and hunger juxtapose the prevailing impression that Hawai'i is secured by the US.

Self-insufficient and unsustainable food system practices contribute to heightened insecurity, increasing malnutrition levels, mortality rates, and disrupted livelihoods. Lowered agricultural productivity and food insecurity can also increase rates of climate-related displacement, as families and communities leave unviable land in search of a more dependable livelihood and a healthier life for themselves and their children.⁴⁷

Military Spending/Military Occupation of Pacific-Asia Nations

The legacy of colonization that has severely impacted fishing and food systems across the Pacific-Asia region has also spread its roots in other parts of human lives and livelihoods. The military occupation of Pacific-Asia nations and large military spending by wealthy nations in the Global North, for instance, have contributed deeply to worsening climate change and the perpetuation of the global system of disposability. "The Department of Defense, the entity that is the US war machine, is the largest institutional contributor to global warming on planet Earth." Furthermore, the United States—which is not only the world's wealthiest country but also the world's largest

cumulative emitter of greenhouse gases—spends \$750 billion dollars per year on defense and only \$6 billion on international climate finance, a number only an eighth of its obligation.³⁶ Yet the US military does not merely increase greenhouse gas levels across the globe—it also has direct environmental and security impacts on the states it occupies, particularly South Asian and Pacific Island nations.

On the island of Guam, for instance, 30% of the landmass is covered by United States military bases. The US first began its occupation of Guam following World War II, when it seized ancestral lands from Chamorro peoples with little compensation. The United States military occupation of Guam has not only forced Chamorros from their land and homes but has simultaneously aided in the destruction of native limestone forests. These forests are essential to the island's biodiversity and to the cultural heritage of the Chamorro people, and forests that once covered half of Guam have since been reduced to about 10% of the island. Today, the military is looking to expand even further with a third base, cutting down an additional 8% of Guam's native limestone forests. The military's expansion will not only continue to destroy biodiversity, but many are concerned that the institution of a live firing range could contaminate the aquifer—the island's source of drinking water—with lead. Military housing allowances make housing nearly unaffordable for non-military residents, and near the Anderson Air Force Base, low-flying jets and depressed housing conditions run rampant.

Unsustainable military practices and occupation, however, not only put a strain on the communities they inhabit but also contribute to climate change effects that in turn strain the military's ability to respond to security risks. As the effects of climate change worsen, many current US bases in the Pacific are threatened by rising sea levels and extreme weather, forcing the potential relocation of critical military bases.¹⁷ The Marshall Islands, for instance, host critical national security sites like the Ronald Reagan Ballistic Missile Defense Test Site—yet, with the Islands' average elevation of only six feet above sea level, it is particularly susceptible to extreme weather and rising sea levels.⁵ A report produced by the International Military Council on Climate and Security warns that militaries "must accelerate efforts toward net-zero to achieve a win-win-win: minimize fossil fuel-related operational vulnerabilities, undermine petro-dictators like Vladimir Putin, and combat climate change."⁵¹

By approaching climate change as a vulnerabilities maximizer, people-rather than militaries, nations, and borders-become more central to the vernacular of climate security and peacebuilding.

SECOND ORDER ENVIRONMENTAL SECURITY THREATS

Climate-Induced Geopolitical Consequences

As the International Military Council on Climate and Security indicated in its 2022 report, climate change affects the fabric of geopolitical relationships, both domestically and internationally. Geopolitical consequences can occur on the local, national, and transnational levels. They can be organized across seven different **CLIMATE RELATED CONFLICT PATHOLOGIES** that indicate how climate security risks can lead to conflict. These pathways can range from the effects of resource scarcity on pastoralist communities whose migratory routes are impacted by climate change, causing competition between groups, to disputes over transboundary resources that transpire into interstate conflict. In the Pacific-Asia region, where disproportionate impacts of climate change threaten resources, governments, and economic systems, these pathways are particularly pertinent.



These seven pathways illustrate the ways in which changes to the climate can influence conflict on community, national, and transnational levels.



PATHOLOGY DESCRIPTION

- 1. Climate change-related resource scarcity leads to conflict between pastoralist and sedentary communities
- Changes in temperature and precipitation cause forms of scarcity that force pastoralist groups to alter their transhumance routes. This precipitates resource competition between groups, infringes on traditional customary regulations and increases conflict risk.
- 2. Climate change-related resource scarcity leads to larger-scale inter-communal violence
- Climate change-induced scarcity of water, food, and land resources, in combination with social, political, geographic, and economic variables, can trigger inter-communal tensions.
- 3. Climate change precipitates (internal) migration, leading to social unrest
- Climate change can lead to migration, whether from rural to urban areas or between rural areas. This can spark social unrest by increasing resource competition and exacerbating feelings of relative deprivation, as well as the severity of inter-cultural clashes.
- 4. Climate change-related social unrest empowers nonstate armed groups
- Climate change interacts with state fragility and contributes to livelihood deterioration, creating fertile ground for the emergence and expansion of non-state armed groups (NSAGs).
- 5. Policies aimed at mitigating the effects of climate change have adverse effects
- Climate change policies can trigger political exploitation and marginalization of groups, aggravating existing grievances and tensions.
- 6. Climate change-related social unrest precipitates large-scale political movements, provoking a government crackdown
- Climate hazards can provoke a window of opportunity for violent and non-violent opposition to further undermine authorities. This erodes state capacity and exacerbates social vulnerability. Conflict arises as a result of the state's (violent) crackdown on dissent.
- 7. Disputes over transboundary resources cascade into interstate conflict
- Climate change can foster tensions over transboundary resources in three main ways: 1) water scarcity raises tensions over transboundary freshwater resources; 2) temperature increases create a new frontier for disputes in the Arctic; 3) diplomatic disputes over climate mitigation measures and responsibility.

Graphic Source: Unpacking the Climate Security Nexus: Seven Pathologies Linking Climate Change to Violent Conflict, The Hague Center for Strategic Studies⁵²

In central Asia, for instance, conflict over water resources leads to increased interstate conflict, as pathway seven indicates. The Tibetan Plateau accounts for Earth's third-largest ice reserve.⁵³ Over 2 billion people rely on water systems fed by the plateau.¹⁷ However, nearly 50% of this reserve has melted over the past 100 years, leading to severe flooding, avalanches, and growing concerns over water insecurity as these glaciers disappear.⁵³ An increase in precipitation in the north and droughts in southern river basins have led to a regional water imbalance, further contributing to the potential for conflict.⁵⁴ Nations like China, India, and Bangladesh lack cooperative transboundary agreements over resources, such as water flowing from the Brahmaputra Basin that crosses these national borders.⁵⁵

Methods for reducing climate-conflict risks can and must include actions like state capacity building, economic diversification, formal human rights laws, and resilience building. These approaches, among others, can be summarized by a larger overarching framework: positive peace.

As climate change consequences worsen, strained transnational relationships like these could lead to the potential for increased conflict and the loss of lives and livelihoods across the region.

Furthermore, in the occupied territory of Tibet, increased climate change consequences could also trigger social unrest as Tibetans speak out about legitimate climate-related concerns (conflict pathway six). As a marginalized group, Tibetans face discrimination in China and risk "being silenced, dismissed or incarcerated" for opposing China's exploitative and unsustainable practices. ⁵⁶ A Tibetan geographer, Dr. Yonten Nyima, remarks, "The role of China's authoritarian political system, including

the absence of participatory governance and imposition of uniformity over diversity, cannot be overstated...A fundamental problem...is that Tibetan pastoralists are entrapped in accepting decisions made by others, with little space for participation in policy-making."⁵⁶ Increased climate-induced consequences will only exacerbate tensions between Tibetans and the Chinese government as climate change negatively impacts the lives and livelihoods of Tibetans.

Conflict pathways six and seven can also be an indicator of some nations that are at risk of entirely losing their sovereignty due to disproportionate climate change impacts. In the South China Sea, Taiwan is projected to have a disproportionately high negative economic impact due to climate change. As a nearshore island with geopolitical boundaries close to China, the disproportionately high climate-fueled economic decline will weaken its "capacity to resist Chinese pressure for reunification."¹⁷

Geopolitical consequences of climate change deeply affect the lives of humans across the region, devastating families and communities as conflict spreads and adequate resources fail to take root. To mitigate these geopolitical consequences of the climate crisis, it is essential that we work transnationally to build communication, diplomacy, and trust across borders through the implementation of positive peace practices.

Climate-Related Displacement

Ninety percent of the world's refugees originate from nations disproportionately impacted by climate change. ⁵⁷ Robert McLeman, a writer for The Center for Climate and Security, states four potential transformations to migration that will stem directly from climate change, including (1) internally displaced persons due to extreme weather, (2) displacement of coastal populations due to sea level rise, (3) rural to urban migration due to changes in regional precipitation patterns, and (4), migration due to greater stress on food prices, which will increase food insecurity. ⁴⁷ Climate-fueled migrations will pose security challenges on both a national and international level and will be exacerbated if state borders continue to harden rather than remain open. Climate-displaced people continue to lack many important protections granted to other displaced individuals and families. ⁵⁸ Collaboration to support climate-displaced peoples is an increasingly urgent area for peacebuilding capacity-building and expansion.

In Bangladesh, all four of McLeman's transformations to migration are at play.

Bangladesh is often called a "ground zero for climate change," as flooding, droughts, and extreme weather push people across the nation to migrate. Every year, an area larger than



the city of Manhattan washes away due to runoff, flooding, and riverbank erosion, with natural disasters displacing 700,000 Bangladeshis yearly.⁵⁹ Furthermore, rising sea levels are expected to submerge 17% of the nation's land by 2050.⁶⁰ The number of internally displaced persons could reach 13.3 million by 2050, making climate change the nation's largest driver of internal migration.⁵⁹ As Bangladeshis migrate to cities like Dhaka in search of livelihoods and protection from climate effects in frontline rural and coastal areas, data from densely populated cities indicate that they have become laden with further security risks like poverty, human trafficking, and increased susceptibility to flooding.⁵⁹

While Bangladesh is central to climate migration discussions, all of South Asia is at risk. A 2018 World Bank study predicts that 40 million people in South Asia could be displaced by 2050. Climate-related disasters in the South Asia region leave nations dangerously exposed. Nearly half the region's people have been impacted by at least one climate-related disaster. Further, a Global Climate Risk Index has ranked India and Pakistan among the top ten countries most vulnerable to climate change. For many whose homes and/or livelihoods have been destroyed along coastlines and in rural areas across the

Cultural preservation, wellness, cooperation, diversity, understanding and compassion, movement building, and positive peace are integral aspects of climate organizing and necessary components to creating peaceful and just societies with fewer security threats or environmental hazards.

region, families are migrating into cities—creating overburdened cities and intense borders—looking for steadier livelihoods and shelter.¹⁰

A 2020 study between the New York Times and ProPublica using data from Central America demonstrates the security risks of closing off national borders to climate migrants, like those predicted to soon migrate from Bangladesh.⁶¹ In one scenario, the study models the United States with borders closed off to climate-displaced people. Here, drought and food insecurity drive rural residents from Mexico and Central America to

urban centers, looking for relief. With nowhere else to go, the populations in Central American cities surge: "Birth rates rise, poverty deepens, and food insecurity grows—all with hotter weather and less water." Millions of people are thrown into abject poverty, unable to leave a home that is quickly becoming uninhabitable. Global systems break down as coastlines sink, agricultural productivity and exports plummet, and disease runs rampant. On the other hand, the study also models the effects of relatively open United States borders. As cities rapidly expand and become overburdened, migrants will begin to push north. This scenario predicts 1.5 million people will migrate to the United States from Central America and Mexico by 2050. In the Global North, a growing elderly population is supported by a too-small workforce; by 2050, it is projected that in North America and Europe, the economic old-age dependency ratio will be 43 elderly persons per 100 working persons. Allowing for climate migration will create a more productive and effective workforce and in turn, mitigate some of the catastrophic effects of the current climate crisis.

Even as models like this 2020 collaboration between the New York Times and ProPublica advise otherwise, many nations continue to close their borders to climate-displaced people. For instance, India is constructing a physical reminder of ever-hardening borders: a 952-kilometer fence along its border with Bangladesh.⁶³ To complete the project that will expand its existing border wall along the 4,097 km border, India will have to relocate many communities that reside along the border, upending the lives and livelihoods of countless families.⁶³ Over the past 40 years, India has invested significant time and resources into constructing this border wall, time and resources that could have been used to support improving access to health care and education, food and water security, and beyond. If national borders close themselves off around the world, improving principles of positive peace—and thus hope for a sustainable future for humanity—will be impossible.

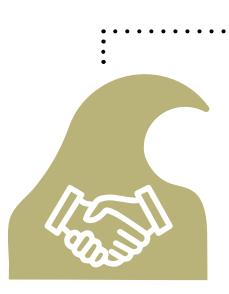
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PEACEBUILDING SOLUTIONS TO ENVIRONMENTAL SECURITY THREATS

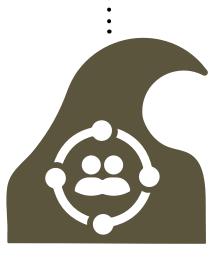
While climate change is a threat multiplier and thus increases the risk of conflict, justice can conversely act as a peace multiplier, offsetting potential for conflict. Justice uplifts principles of positive peace, working to elevate an ethic of care that centers reciprocity with each other and the Earth. Environmental justice, in particular, merges at this nexus of climate, peace, and security, contextualizing justice and equity in the foreground of the changing climate and ensuring the "fair treatment and meaningful involvement of all people" with respect to the implementation of climate solutions.⁶⁴ In the context of peacebuilding, justice must be integral. When it is not, peacebuilding can work backward, upholding the "power structures that entrench inequality and, in turn, threaten peace." Therefore, it is essential to employ the principles of positive peace in peacebuilding so that solutions to environmental security threats are working to address conflicts from their foundations.

The following subsections provide examples of positive peacebuilding solutions to environmental security threats that underlie the existential security threat of climate change, including: (1) the inclusion of marginalized groups in decision-making, (2) the formation of community-based coalitions, and (3) funding climate resilience. This list is not exhaustive; rather, it is a focused look at a few areas with immense potential. We have to turn the tide of destructive climate change towards swells of peace and connection, not only to each other but to the lands and waters that sustain us.





Inclusion of women, Indigenous communities, and other groups marginalized from decision-making



Community-based coalitions working from the ground up



Funding climate resilience and adaptation in frontline communities

INCLUSION OF WOMEN, INDIGENOUS COMMUNITIES, & OTHER GROUPS MARGINALIZED FROM DECISION-MAKING

Nations must provide women, Indigenous communities, and other marginalized groups access to the political process to increase the acceptance of the rights of others—a principle of positive peace. Women and Indigenous communities are not only some of the communities most impacted by the consequences of climate change—and thus should be given a say in how climate change is dealt with—but are also the most effective at peacebuilding and efforts towards sustainability.

Women must be involved to mitigate the negative geopolitical consequences of climate change. Peace is more effective when women participate in peace processes, deals, and truces. Research shows that if women are involved in a truce-making process, a truce is 64% less likely to fail. Furthermore, a peace agreement that includes women is 35% more likely to last at least fifteen years. Monash University's Gender, Peace, and Security Center demonstrates that "valuing women's localized knowledge, increasing women's participation and collective action, and resourcing women's networks and organizations provides the groundwork for a more integrated, gender-responsive approach to intersecting crises," like those of conflict, peace, and climate. However, between 1992 and 2019, only three of every ten peace processes included women mediators or signatories. Unring the COP27 talks in 2022, only seven of the 110 world political leaders present were women.

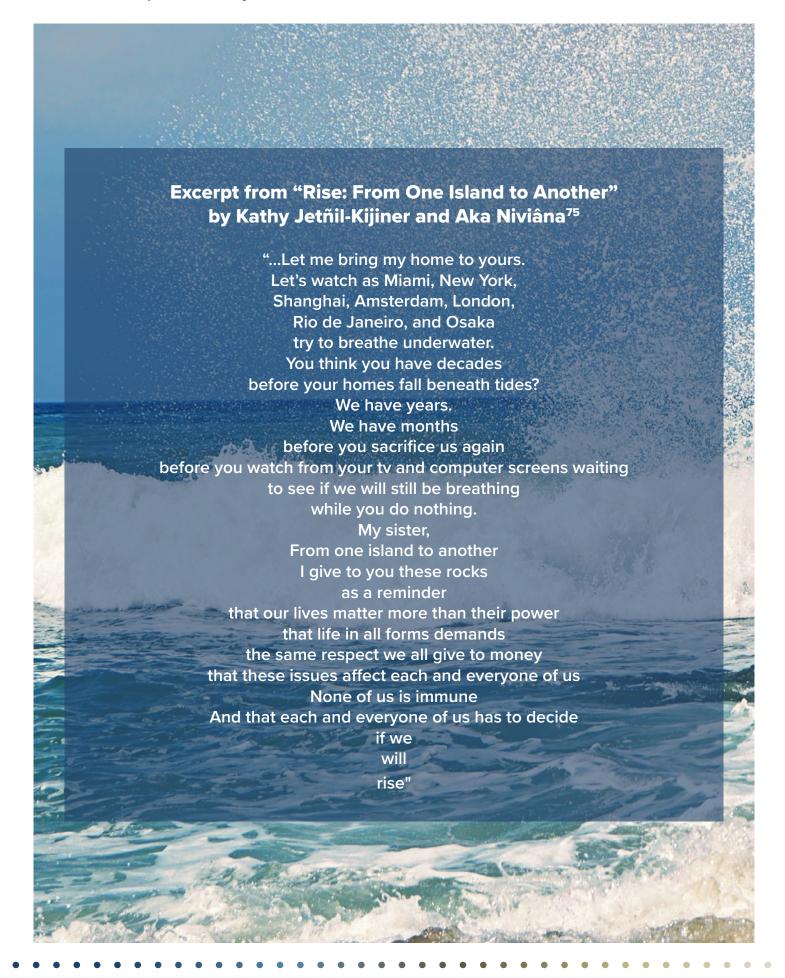
Indigenous women are particularly paramount to climate change adaptation and conservation efforts. Indigenous peoples are stewards of 22% of the Earth's surface, holding 80% of the world's biodiversity, making their voices in decision-making processes critical in response to the changing climate. Within Indigenous communities, Indigenous women are "keepers of ancestral traditions, stewards of the land and natural resources, defenders of human rights, and pivotal caretakers of their families and communities," and thus hold a critical position in elevating positive peace and just climate solutions, such as forming responses to threats like food insecurity and declining fisheries.

Justice uplifts principles of positive peace, working to elevate an ethic of care that centers reciprocity with each other and the Earth.

Women across the Pacific-Asia region are working on various levels to respond to climate change impacts, including managing food, water, fisheries, and other natural resources. In Nepal, 50,000 female-identifying individuals across the country have organized the Himalayan Grassroots Women's Natural Resource Management Association (HIMAWANTI). This association works to elevate the role of women in sustainable natural resource management.⁷³ Historic gender inequality within the country has allowed Nepali women to make up only 6%

of total landowners and hold only 4% of arable land.⁷³ Yet, Nepali women, Indigenous people, Dalits (lowest in the caste system hierarchy), and low-income rural communities rely the most heavily on Nepalese forests.⁷³ The detachment between decision makers and resource use has led to poor governance and corruption, further exacerbating climate impacts on an already diminishing supply of forest resources.⁷³ Thus, the formation of HIMAWANTI allows for the opportunity to bring a new prospect to resource management in Nepal and uplift the principles of positive peace essential to a well-functioning, sustainable society.

In the Republic of the Marshall Islands (RMI), former President Hilda Heine and her daughter, activist, poet, and climate envoy Kathy Jetñil-Kijiner, have led climate advocacy movements. As a climate envoy, Kathy Jetñil-Kijiner works on the RMI National Adaptation Plan, elevating the concerns of Indigenous leaders and Marshallese citizens as the country lays the foundation for adopting sustainable solutions to the climate crisis.⁷⁴ Jetñil-Kijiner, a poet, has also collaborated with Inuk writer and climate activist Aka Niviâna from the northern coast of Greenland to perform a poem entitled "Rise," a poem that demonstrates connection and reciprocity across land and sea:⁷⁵



COMMUNITY-BASED COALITIONS WORKING FROM THE GROUND UP

Furthermore, local collaborations and partnerships uplift multiple facets of the principles of positive peace: acceptance of the rights of others, equitable distribution of resources, good relations with neighbors, and low levels of corruption.¹⁹

Community-based coalitions are essential to forming a more reciprocal relationship with the land, a relationship that pushes against the extractivist, exploitative global system of disposability that wealthy nations in the Global North have created. These coalitions work to combat food insecurity, climate-related displacement, military occupation, and beyond, effectively building solutions to the many existential environmental security threats that plague

our globe today.

One such coalition exists in Hā'ena, Kaua'i. Hawai'i's first community-based subsistence fishing area (CBSFA) was officially signed into law in 2015 after over two decades of local activism. During the process of forming a CBSFA, local Hā'ena fisherwomen and men were interviewed and asked to share their personal, place-based knowledge of the 'āina. A community-based system of governance like this one allows for the communities that most directly interact with the resource and are most deeply impacted by its overexploitation to make the decisions regarding its management, thus amplifying the voices of local communities and more effectively managing resources. Even just a year after the CBSFA rules were adopted in 2015, data had begun to show an "enhanced abundance of most fish species." The successful formation of the Hā'ena CBSFA allowed for an understanding that, ultimately,

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there should be a "devolution of authority for governance to those who care most about a place. Local level decision making would likely be more stable and effective than distant, fragmented agencies overseeing the entire state."34

Another community-based coalition can be found in Papua New Guinea, where a group of local women in the Carteret Islands seek to mobilize their community around relocation.⁷⁸ Papua New Guinea is plagued by a crisis of gender-based violence, where nearly ½ of women experience violence in their lifetime—a statistic double the global average.⁷⁹ In juxtaposition to this violent legacy, the elevation of women leaders in this community coalition allows for the uplifting of justice-based peacebuilding and provides a framework for equitable, reciprocal action in the

face of the climate crisis. These women named their organization Tulele Peisa, meaning "sailing the waves on our own" in the local Halia language. Tulele Peisa has worked to increase its community's climate resilience by partnering with potential host communities, securing tracts of arable land, and beginning to plant crops to sustain their people. Furthermore, they have begun advocacy campaigns highlighting traditional marine resource management and other practices that can help to preserve cultural biodiversity and sustainability and mitigate the need for community relocation.

Tulele Peisa and Hā'ena's community-based subsistence fishing area are merely two of many community-based coalitions in the Pacific-Asia region and around the globe working to promote positive, sustainable peace. The implementation of community-based governance like Hā'ena's CBSFA and Tulele Peisa can not only improve resource management and decrease food insecurity within communities but can also work to deconstruct the global system of disposability that has historically sacrificed communities like Hā'ena and the Carteret Islands. These coalitions allow us to glimpse the potential for a global system built on peace, community connection, and a sustainable relationship with the land that nurtures us.

FUNDING CLIMATE RESILIENCE & ADAPTATION IN FRONTLINE COMMUNITIES

Climate resilience and adaptation measures are essential to improving the principles of positive peace and deconstructing the global system of disposability at the systems level. However, Pacific Island nations do not receive nearly enough international climate funding to address the disproportionate impacts of climate change and create measures that will aid in climate resilience and adaptation.

Frontline nations, including many low-lying island nations in the Pacific, will soon require \$290 to \$580 billion per year to finance climate resilience, while the current cost of climate adaptation—\$70 billion—will rise to \$300 billion by 2030.81 These costs do not grow linearly over time; rather, these investments multiply quickly as less action is taken and the damages emanating from climate change rapidly climb. Yet, international agreements refuse or limit funding for climate resilience and adaptation in frontline nations.82

During the 2021 COP26 climate talks, the United States, European Union, and other wealthy nations resisted the establishment of a dedicated fund to combat loss and damage from climate change—and thus improve climate resilience—in frontline nations. Instead, they pledged \$960 million to

Climate adaptation and climate resilience in frontline nations must be funded in full, but international agreements continue to put off this type of funding. Many climate activists and frontline leaders across the globe are advocating that when wealthy countries finance economically oppressed frontline nations, they are merely compensating for their huge and disproportionate impact on the climate.⁸¹

the 2022 COP27 talks did reach a historic agreement that set up a loss and damages fund, the first of its kind to provide compensation for the cost of climate-related damages in countries that endure the brunt of environmental consequences.83 Yet the few nations who have thus far volunteered loss and damages funds fall billions of dollars short of the funding needed to truly make a dent in the catastrophic climate consequences that many frontline communities and nations face.84 To date, only six nations have offered money for loss and damages.84 The United States, which is responsible for 25% of greenhouse gas emissions in the atmosphere, only reluctantly signed onto the agreement and has yet to commit any of its abundant resources to the fund.85

Climate adaptation and climate resilience in frontline nations must be funded in full, but international agreements continue to put off this type of funding. Many climate activists and frontline leaders across the globe are advocating that when wealthy countries finance economically oppressed frontline nations, they are merely compensating for their huge and disproportionate impact on the climate. Thus, while international agreements have been slow to provide the necessary means to aid frontline nations against climate change, some nations have begun to take funding matters into their own hands.

climate adaptation alone in low-income nations, a mere 13% of the current required cost of climate adaptation.82 Finally,

In October 2021, the Government of Tuvalu and the Government of Antigua and Barbuda signed an agreement creating a United Nations commission of small island states promoting international law principles regarding climate change. They hoped to use international law to reframe issues of climate and security, pressuring international courts to hold large greenhouse gas emitters accountable. The commission wants large polluters to be legally obligated to financially compensate those most affected by climate change. Gaston Browne, prime minister of Antigua and Barbuda, stated that being on the frontlines, we have an obligation to act quickly to bring this senseless burning of fossil fuels to an end...so that we can have a sustainable planet. Later, he says, "if their efforts succeed, it would be a victory for all of humanity. Governments working with civil society, the private sector, and activists can truly begin reducing climate inequities and transitioning our world towards a more sustainable, just, and peaceful future by reimagining how climate financing is allocated and decided, as well as by creating policy mechanics to see the ideas through.

RESEARCH GAPS & LIMITATIONS

As humans, we have yet to deal with a catastrophe as existential as the threat of climate change. Due to this, it can be difficult to predict the extent to which the effects of climate change will impact humanity and the globe. This research does not delve deeply into the indirect impacts of climate change, like violent unrest, civil war, or recruitment by armed groups, which could arise due to the destruction of livelihoods, movement of people, or crop destruction.

Many of the sources used in this research also fail to truly address the underlying causes of what climate is exacerbating, including current systems of exploitation, disposability, and sacrifice. While this paper strives to draw out these underlying causes, it is essential that more research is done to emphasize not only the disproportionate and harmful effects of climate change, but the underlying framework of inequalities that is aggravated by the climate crisis.

In particular, further research must be done regarding the nexus of human and national security. Similar to much of the current literature investigating the link between climate and security, this paper recognizes climate change as a threat multiplier, a term that has prompted urgency and policymaking in the face of climate threats. However, a growing body of knowledge looks to reframe climate change as a "vulnerabilities maximizer." This would reframe climate change as the context within which we must work to build just and peaceful resilience, mitigation, and adaptation responses rather than a threat that nations must respond to with an approach that is violent, armed, and militaristic. By approaching climate change as a vulnerabilities maximizer, people—rather than militaries, nations, and borders—become more central to the vernacular of climate security and peacebuilding. Positive peacebuilding requires a human-centered approach. Future research must delve deeper into the interconnections, disparities, and intrinsic biases in how we conventionally approach and define climate threats.

Moreover, the resources utilized throughout this research are pulled from primarily English-speaking authors, organizations, and news sources based in the Global North. The research conducted was highly attuned to national and global levels of climate security and peacebuilding work. This discrepancy thus suggests a lack of resourcing and funding available for climate research and community-based peacebuilding work in the Global South, widening inequities and deepening the global system of disposability pervading the globe. New areas of research that broaden opportunities and entry points for women, youth, frontline, BIPOC, and gender-diverse communities must be resourced and funded.

Lastly, this research identifies only a microcosm of the security threats and peacebuilding responses that exist today. Rather than an extensive list of environmental security threats, this overviews six large threats we face as we come to terms with the climate crisis. Similarly, this research only outlines three peacebuilding responses, leaving numerous other facets of effective positive peacebuilding unexplored. While this effort marks the beginning of consolidating security threats and peacebuilding solutions, more research is required to extensively outline the wide berth of security threats and peacebuilding solutions present today.

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Positive peacebuilding requires a human-centered approach. Future research must delve deeper into the interconnections, disparities, and intrinsic biases in how we conventionally approach and define climate threats.

CONCLUSIONS

Today, environmental security threats are at the cornerstone of our global order. With warming temperatures, rising sea levels, decimated species, extreme weather, lost livelihoods, and beyond, conflict is steeped in the environment it inhabits. By refusing to respond in kind to this warming world, we pave the way for increased fighting over resources, lowered levels of well-being, millions of displaced persons around the globe, and health and environmental burdens weighing increasingly heavier on those not responsible for the climate crisis.

To counteract these environmental security threats, we must build sustainable, positive peace. While few and far between, nations throughout the world are working on national and transnational levels to not only mitigate climate change but also

The climate crisis signifies the urgency to work across sectors to recognize and respond to intersectional implications where security alone stops short. to integrate peacebuilding into climate resilience and adaptation efforts. For instance, the United States recently passed the Inflation Reduction Act in the summer of 2022, the largest climate legislation in the nation's history.⁸⁹ This bill allocates \$60 billion for environmental justice, funding underserved communities that have suffered the most from climate change effects.⁹⁰ Furthermore, \$25 million were particularly allocated for Native Hawaiian climate

resilience.⁹¹ These priorities elevate principles of positive peace, ranging from an equitable distribution of resources to an acceptance of the rights of others.

But more—much more—is required. The Pacific-Asia region is not alone in experiencing climate change consequences, but its disproportionate climate change burden must be key to our global response to the climate catastrophe. As a non-profit founded and operating in the Pacific-Asia region, ICP organizes human-centered solutions through our programs, research, leadership collaboration, and policy transformation. Therefore, our own unique administrative and governance focus knows the importance of this topic intimately. We also understand the gaps in conventional securitization and disarmament frameworks whose goals focus mainly on negative peace, if at all. The climate crisis signifies the urgency to work across sectors to recognize and respond to intersectional implications where security alone stops short.

This research identifies numerous examples of environmental security threats and geopolitical consequences in this region. Case studies and examples demonstrate the overwhelming need for community-based, capacity-building, people-centered programs, policies, and solutions that drive resilience instead of conflict. This paper also frames intersectional aspects of well-being, education, culture, relationships, representation, and agency that can be intertwined to manifest effective and inclusive responses to the climate crisis. Our work recognizes and implements values of peace, equity, and justice woven throughout our initiatives. In this climate emergency, exposure and stressors everyday people know and feel now and in the future are ultimately influenced by systemic drivers like the meso and macro levels synthesized in this review. This research upholds the saliency of operating from a place-based lens. It indicates the significance of equitable, inclusive, and diverse representation for decision-making and action.

This research further emphasizes the significance of enhancing our relationship with the environment. Spotlighting several long-held environmental approaches in this region, it is clear that conflict management and risk avoidance fall short of the requisite to care for the environment as conscious and intentional acts for global, regional, and sub-national safety, security, and sovereignty. Cultural preservation, wellness, cooperation, diversity, understanding and compassion, movement building, and positive peace are integral aspects of climate organizing and necessary components to creating peaceful and just societies with fewer security threats or environmental hazards.

Creating programs and spaces that center these intersectional attributes promotes efficiency in how we respond to the climate crisis, especially for those most affected. Broadening the opportunities and entry points would further catalyze the agency of women, youth, frontline, BIPOC, gender-diverse, and Indigenous communities. To achieve peaceful and just climate mitigation, resilience, and adaptation, we must collaborate inside and beyond borders. We must envision a society where positive peace, rather than environmental security threats, is the foundation of our global system. Only then will we be able to actually progress toward a more fair, sustainable, and just society.

ENDNOTES

- 1. Responding to Pakistan Floods, Brookings Institution (2023)
- 2. How melting glaciers fueled Pakistan's floods, Vox (2022)
- 3. Climate change likely helped cause deadly Pakistan floods, scientists find, NPR (2022)
- 4. Global Climate Risk Index, Germanwatch (2021)
- 5. Climate Change in East Asia and Pacific Impacts DOD,
- U.S. Department of Defense (2021)
- 6. Climate change recognized as 'threat multiplier', UN Security Council debates its impact on peace, United Nations (2019)
- 7. Climate Change as a "Threat Multiplier": History, Uses, And Future of the Concept, Center for Climate and Security (2023)
- 8. What is Human Security, United Nations Trust Fund for Human
- 9. Resolution adopted by the General Assembly 66/290, United Nations (2012)
- 10. Climate-Induced Displacement: South Asia's Clear and Present Danger, Wilson Center (2020)
- 11. Climate and Development in East Asia and Pacific Region, The World Bank (2022)
- 12. Climate as a risk factor for armed conflict, Nature (2019)
- 13. The Nexus of Climate Change, Fragility, and Peacebuilding, Wilson Center (2021)
- 14. Climate Change and Violent Conflict: Sparse Evidence from South Asia and South East Asia, SIPRI (2018).
- 15. Pathways For Peace, World Bank (2018)
- 16. The Pacific Islands: The front line in the battle against climate change, National Science Foundation (2022)
- 17. Chapter 12: The Climate Crisis and Asia-Pacific Security, Asia Pacific Regional Security Assessment (2022)
- 18. We needed China deal to protect 'domestic security,' says key Solomon Islands official, The Guardian (2022)
- 19. Positive Peace Report 2022, Institute for Economics and Peace (2022)
- 20. Positive Peace builds Climate Resilience, Institute for Climate and Peace (2022)
- 21. Positive Peace Report 2020, Institute for Economics and Peace (2020)
- 22. Managing our resources: women, mining, and conflict in the Asia-Pacific, Australian Strategic Policy Institute (2019)
- 23. Advancing Gender Equality to Combat Corruption in Mining, Transparency International Australia (2021)
- 24. The existential risk space of climate change, National Institute of Health (2022)
- 25. What are 'sacrifice zones' and why do some Americans live in them?, The Guardian (2021)
- 26. Notes on Natural Worlds, Disabled Bodies, and a Politics of Cure, Disability Studies and the Environmental Humanities: Towards an Eco-Crip Theory (2017)
- 27. Hawai'i Agencies Criticize a Big Island Military Training Site Amid Push for Lease Renewal, Honolulu Civil Beat (2022)
- 28. The Navy's fuel leak in Hawai'i outraged local activists. That's happened around the globe. Washington Post (2022)
- 29. "Bombs can't kill viruses": Hawai'i faces backlash as international war games approach, The Guardian (2020)
- 30. Moruroa Files, INTERPRT (2022)
- 31. Tahiti Transformation: Gender and Capitalism Development in a Rural Society (1993)
- 32. This Interactive Chart Shows Changes in the World's Top 10 Emitters, World Resources Institute (2023)

- 33. Climate change increasing threats in southwest Pacific: WMO report, United Nations (2021)
- 34. Kaiāulu: Gathering Tides, Oregon State University Press (2018)
- 35. In French Polynesia, an Ancient Conservation Model is Helping Revive Fisheries, Pew Trusts (2022)
- 36. Environment of Peace: Security in a New Era of Risk, Stockholm International Peace Research Institute (2022)
- 37. Fish, Food Security, and Future Conflict Epicenters, The Center for Climate and Security (2017)
- 38. Coast Guard: Illegal Fishing Has Surpassed Piracy as a Global Threat, USNI News (2023)
- 39. Asia and the Pacific: Regional Overview of Food Security and Nutrition, Food and Agriculture Organization of the United Nations (2022)
- 40. Climate Change and Food Security in the Pacific Islands, University of Melbourne (2020)
- 41. Climate Change Impacts on Agriculture and Food Supply, Environmental Protection Agency (2022)
- 42. The role of Indigenous agricultural system in creating a climate resilient food system in Hawai'i, Yale Environmental Review (2019)
- 43. The potential of Indigenous agricultural food production under climate change in Hawai'i, Nature (2019)
- 44. In Hawai'i, Coronavirus Pandemic Takes Toll on Food Supply, WBUR (2020)
- 45. Hawai'i's food insecurity levels remain high as foodbank deals with supply chain issues, inflation, Khon2 (2021)
- 46. 1 in 4 children are at risk of going hungry in 2021, says Hawai'i Foodbank, Khon2 (2021)
- 47. Migration and Displacement in a Changing Climate, The Center for Climate and Security (2017)
- 48. Is super-polluting Pentagon's climate plan just 'military-grade greenwash?', The Guardian (2022)
- 49. Guam's ecological fate is in the hands of the U.S. military, National Geographic (2018)
- 50. Guam: Where the US Military is Revered and Reviled, The Diplomat (2016)
- 51. RELEASE: Decarbonized Defense: Kicking off the World Climate and Security Report 2022, The Center for Climate and Security (2022)
- 52. Unpacking the Climate Security Nexus: Seven Pathologies Linking Climate Change to Violent Conflict, The Hague Center for Strategic Studies (2022)
- 53. The World Climate and Security Report, International Military Council on Climate and Security (2020)
- 54. The imbalance of the Asian water tower, Nature (2022)
- 55. The Water Wars Myth: India, China, and the Brahmaputra, United States Institute of Peace (2022)
- 56. Questionnaire in relation to Human Rights Council Resolution 47/24 on human rights and climate change, International Campaign for Tibet (2021)
- 57. Conflict and Climate, United Nations: Climate Change (2022)
- 58. Climate Change is Fuelign Migration. Do Climate Migrants Have Legal Protections?, Council on Foreign Relations (2022)
- 59. Climate change creates a new migration crisis for Bangladesh, National Geographic (2019)
- 60. Bangladesh: A Country Underwater, a Culture on the Move, National Resources Defense Council (2018)
- 61. The Great Climate Migration, New York Times (2020)

- 62. The century of climate migration: why we need a plan for great upheaval, *The Guardian* (2022)
- 63. Why Has India Missed Deadlines For Fencing the India-Bangladesh Border?, The Diplomat (2023)
- 64. <u>Environmental Justice</u>, *Environmental Protection Agency* (2023)
- 65. <u>Justice and peace go hand in hand you can't have one</u> without the other, *The Guardian* (2015)
- 66. Anchoring the Peace: Civil Society Actors in Peace Accords and Durable Peace, International Interactions (2012)
- 67. We need more women leaders to sustain peace and development, *United Nations*
- 68. Pacific Women's Leadership in Climate Change, Peace, and Security, UNESCO (2021)
- 69. <u>Facts and figures: Women, Peace, and Security,</u> *UN Women* (2022)
- 70. COP27: Lack of women at negotiations raises concern, BBC News (2022)
- 71. <u>Challenges and Opportunities for Indigenous Peoples'</u>
 <u>Sustainability, United Nations</u> (2021)
- 72. Significance of Women and Mother-led Social Change in the Pacific-Asia Region, *Institute for Climate and Peace* (2022)
- 73. <u>The Climate-Gender-Conflict Nexus</u>, Georgetown Institute for Women, Peace, and Security (2021)
- 74. Climate Activist Poet Kathy Jetñil-Kijiner Visits Ebeye, Kwajalein,
- U.S. Embassy in the Republic of the Marshall Islands (2022)
- 75. Rise: From One Island to Another, 350.org (2018)
- 76. HRS 188-22.9 Hāʻena Community-Based Subsistence Fishing Area, *State of Hawai'i* (2015)
- 77. Recognizing "reciprocal relations" to restore community access to land and water, International Journal of the Commons (2019)
- 78. To Hell With Drowning, The Atlantic (2021)
- 79. Women Play Key Role in Crafting Peaceful, Sustainable Future for Papua New Guinea, *United Nations* (2020)
- 80. <u>Tulele Peisa: Papua New Guinea</u>, *Equator Initiative* (2016)
- 81. A Climate Finance Rethink Can Help Those Most Affected by Climate Change, New Security Beat (2022)
- 82. Climate 'loss and damage' earns recognition but little action in COP26 deal, Reuters (2021)
- 83. COP27 agrees historic 'loss and damage' fund for climate impact in developing countries, *The Guardian* (2022)
- 84. Factbox: COP27: Which countries have offered 'loss and damage' funds?, *Reuters* (2022)
- 85. Who has contributed most to global CO2 emissions?, Our World in Data (2019)
- 86. The Agreement for the Establishment of the Commission of Small Island States on Climate Change and International Law, International Legal Materials: Cambridge University Press (2022)
- 87. Island nations seek a way to sue big polluters over climate change that could leave some underwater, CBS News (2021)
- 88. Public Participation: A Counter to Climate Policy
- Backdraft?, New Security Beat (2022)
- 89. As Congress funds high-tech climate solutions, it also bets on a low-tech one: Nature, *Washington Post* (2022)
- 90. ICP Statement on the Passing of the Inflation Reduction Act, Institute for Climate and Peace (2022)
- 91. <u>Fact Sheet: How the Inflation Reduction Act Helps Asian</u> American, Native Hawaiian, and Pacific Islander Communities, *The White House* (2022)
- 92. Mexico Peace Index, Institute for Economics and Peace (2018)

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When rights are accepted, neighbors enjoy good relations, information flows freely, and resources are more equitably distributed—all indicators of positive peace—exponentially fewer people suffer the effects of natural disasters and global stressors.

ICP is a climate justice organization that understands the science and advances positive peace to build equity and climate resiliency for communities most affected by climate change. It was created in response to the increasing threat to humanity's fundamental goal: peace. We see an urgent need to catalyze a body of climate change work that centers justice and activates ground-up climate resilience and positive peace strategies.

Our mission is to advance effective and inclusive processes to build peaceful and climate-resilient futures for the wellbeing of all. ICP remains rooted in Indigenous and regenerative practices. We are re-envisioning how we relate to ourselves, each other, and our environment by investing deeply in positive peace strategies that are transformative and support the vision of communities at the frontlines of climate change. With a dedicated team of energetic apprentices, analysts, and associates, ICP develops papers such as this one to be tools for learning exchanges across all stages of professional growth.

Watch the following video to learn more about how ICP connects climate and peace. As you watch, listen for the distinction between positive and negative peace, as well as for descriptions of how peace and climate resilience are interconnected. https://bit.ly/ICPintro

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