



The Significance of Women and Mother-led Social Change in the Pacific-Asia Region

Engaging and uplifting the effective roles of women, mothers, intergenerational relationships, Indigenous knowledge, and frontline communities to advance climate action and positive peace.

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To the women, mothers, and our grandmothers before us, we thank you for your guidance and wisdom. We seek to honor you daily.

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ABSTRACT

Climate change is deeply rooted in global patterns of systemic inequality.¹ As the impacts of climate change worsen, societal and environmental inequalities deepen. Youth and future generations, women, gender-diverse individuals, Indigenous peoples, under-resourced populations, marginalized communities, and geographically vulnerable regions—like the Pacific-Asia Region and the Global South—are all disproportionately impacted by climate change. Those at the frontline of this crisis are being failed by systems of oppression, stemming from patriarchal and colonial power structures that are desecrating and exploiting the natural world.

Therefore, by intentionally and strategically placing communities and groups who are experiencing the first-hand effects of climate change and injustice, at the apex of climate action, social movements, and peacebuilding efforts, meaningful systemic change is possible. By weaving together the intersections of gender, intergenerational relationships, frontline populations, and Indigenous perspectives into the fabric of climate solutions, disproportionate climate-related effects can be addressed. Effective and lasting social change can be achieved when intersectionality, equitable inclusivity, justice, and diversity are implemented to mitigate and adapt to the risks that perpetuate these deeply rooted inequalities.

The climate crisis is an opportunity to catalyze the roles of women, mothers, and maternal figures. Each represents priority populations of focus to accelerate climate action, just systems, and positive peace: “the attitudes, institutions, and structures that create and sustain peaceful societies.”² The impacts generated by maternal activism at the impetus of social change movements are clear. They are central changemakers in the history of voting rights, environmental and cultural guardianship, gun violence, air pollution, human rights, and now: Climate change. Traditional gender roles have historically rooted women into family and community dynamics, which puts them in unique positions that drive advocacy in a diverse set of ways. Women and mothers are particularly poised to lead and advocate for climate adaptation, mitigation, and resiliency efforts that encompass the rights and well-being of their families, communities, and the environment for a safe, livable, peaceful, and just future.

Frontline communities and grassroots groups led by women and mothers in the region are broadening and deepening what climate mitigation, adaptation, and resiliency efforts can look like when we are in the right relationship with each other, the environment, and those for whom we care.

By mobilizing Indigenous knowledge and intergenerational relationships to foster long-term solutions, society can channel matrilineal wisdom to address climate change impacts from local to global scales. Community-grounded innovations pave a pathway forward to effectively engage and respond to place-based opportunities in meaningful and effective ways. Channeling shared values, integrating culture, honoring traditional knowledge systems, building sound relationships, and feminist genealogies within climate mitigation, adaptation and resiliency measures will generate social change and progress. Furthermore, by prioritizing well-being, engaging in multilateral dialogue, and uplifting inclusive representation and equitable opportunities, individuals and groups can channel their power towards creating better societies. Therefore, uplifting the effective roles of these essential communities and groups to

advance climate action and positive peace—especially within regions most affected—will deliver an equitable and sustainable future. Frontline communities and grassroots groups led by women and mothers in the region are broadening and deepening what climate mitigation, adaptation, and resiliency efforts can look like when we are in the right relationship with each other, the environment, and those for whom we care.

Youth and future generations, women, gender-diverse individuals, Indigenous peoples, under-resourced populations, marginalized communities, and geographically vulnerable regions—like the Pacific-Asia Region and the Global South—are all disproportionately impacted by climate change.

INTRODUCTION & BACKGROUND

The Pacific-Asia Region sits at the forefront of the climate crisis. This region is encountering effects that include coastal erosion, sea-level rise, flooding, ocean acidification, heatwaves, droughts, and extreme weather events like hurricanes and tropical storms. In the Pacific-Asia Region, 2.4 billion people live in low-lying coastal areas, 60% of people work in sectors highly prone to changing weather patterns, and 200 million people depend on fisheries and healthy oceans.³ Climate-related impacts are causing low crop yields, food insecurity, job loss, forced displacement and migration, health disparities, cultural decimation, and high mortality rates.³

While existing structural inequities operate together and are amplified because of climate change, it is crucial to build communities around solutions, and for the solutions to be led by communities most impacted.

Women are among the most affected by climate change, as disproportionate impacts cause significant spikes in gender-based violence, health-related issues, migration status, and mortality rates associated with disasters and states of emergency.⁴ Indigenous peoples—and historically marginalized, under-resourced communities—have started experiencing the extreme effects of climate change. As existing racial, economic, generational, and health disparities are being further widened by the climate crisis.⁵ Intersectional research illustrates data toward global inequalities where the climate emergency jeopardizes intergenerational equity and the futures of global youth,

succeeding generations, and the life course of the planet.⁶ While existing structural inequities operate together and are amplified because of climate change, it is crucial to build communities around solutions, and for the solutions to be led by communities most impacted. Ensuring that solutions, policies, initiatives, and actions are intentionally working to end the perpetuation of discrimination and disparity, should be part of all climate work. The solutions we invest in should elevate the inherent wisdom, power, ingenuity, and voices of frontline communities and groups who are most impacted by the climate crisis. Broadening the opportunities of these groups to be cornerstones for justice and lasting change, can be the greatest accelerant of change by 2030.

RESEARCH SCOPE & METHODS

In 2022, the *Institute for Climate and Peace* (ICP) organized secondary research with a primary goal of informing programming that catalyzes a body of climate work to support humanity's fundamental goal: Peace. Research explored the intersections and opportunities of women and mother-led social change, intergenerational approaches, community and cohort engagement, Indigenous and traditional knowledge, and social well-being in the context of climate change in the Pacific-Asia Region.

This research was carried out by conducting an extensive literature review on English-focused publications. Efforts focused on peer-reviewed journal articles, gray literature, and popular press, news, and media at the nexus of climate change, women and mothers, and social well-being. In addition to compiling data and statistics from gray literature from the last 3-5 years on the aforementioned topics, additional investigation looks at gender-responsive climate change attitudes, effects, and adaptability. This white paper further explores historical and current connections between global disparities, psychological implications, grassroots organizing, and holistic well-being. This work is core to our Institute's founding purpose, mission, vision, and organizational values, and provides fundamental aspects to our initiatives in the near future.

FINDINGS

Climate change is widening forms of discrimination and disparity that intersect from existing global inequalities. Findings from this research indicate a significant need for intersectionality, equitable inclusion, justice, and action. Effective solutions lie in the implementation of women-led, community-based, capacity-building, wellness-centered programs and perspectives that facilitate multilateral dialogue. The prioritization of deep engagement, inclusion, courageous conversations, and integrative approaches to climate action are considered. In addition to recognizing and tending to aspects of well-being, the integration of place-based knowledge, multicultural perspectives, collaboration, empathy, and diverse and inclusive leadership and representation, are seen as important and necessary facets that are paramount to advance sustainable development and peaceful societies. Five significant findings emerged from the research that suggest programming and policies should consider:

- (1) The Mental Health and Well-being of Women and Mothers;
- (2) Psychological Dimensions of Climate Change and Ecological Degradation;
- (3) Uplifting and Educating Women and Girls in Climate Change;
- (4) Deeper Levels of Engagement with Local and Community-Based Programs; and
- (5) Utilizing Intergenerational Approaches and Indigenous Knowledge

Significant Findings

Findings suggest the need to address the following 5 areas:

(1) The Mental Health and Well-being of Women and Mothers



(2) Psychological Dimensions of Climate Change and Ecological Degradation



(3) Uplifting and Educating Women and Girls in Climate Change



(4) Deeper Levels of Engagement with Local and Community-Based Programs



(5) Utilizing Intergenerational Approaches and Indigenous Knowledge





THE MENTAL HEALTH AND WELL-BEING OF WOMEN & MOTHERS

Women and mothers have a powerful influence within social justice and peacebuilding arenas, and can greatly contribute to creating an equitable, safer, and sustainable society for themselves and their descendants. Moreover, it is imperative to recognize the barriers women and mothers face in their daily lives—and throughout their lifetimes—that threaten their well-being and challenge their abilities to thrive and contribute to the world. The *Georgetown Institute for Women, Peace, and Security* states that “Where women can overcome structural barriers to their participation, they are uniquely positioned to contribute to sustainable natural resource management, climate-resilient communities, and enhanced peace and stability.”⁷ This signifies the critical need for gender-responsive systemic change, where women’s needs and contributions run parallel to their well-being.

COVID-19 and The Climate Crisis: Deepening Disparities for Women and Mothers

The COVID-19 pandemic exemplifies how existing disparities are amplified and can worsen in times of crisis. Globally, all types of violence against women and girls have spiked,⁸ 41% of women have indicated a decline in their mental and emotional health,⁹ and studies have shown a significant increase in stillbirth, maternal death, and maternal depression during the pandemic.¹⁰ In the United States, nearly 1.4 million mothers of school-aged children were out of the workforce one year after the pandemic began.¹¹ January 2022 saw the lowest percentage of women in the workforce since 1988.¹² The pandemic escalated women’s responsibilities, as they took on the brunt of unpaid labor and caregiving.¹¹

Balancing work and family has never been harder, with the average length of uninterrupted work during the pandemic at 3 minutes 24 seconds.¹³ Pandemic-based studies found that mothers were interrupted during paid working hours 57% more than fathers.¹⁴ Additionally, the maternal health crisis in the U.S. has escalated, where Black, Indigenous, People of Color (BIPOC) women experience the highest rates of infant¹⁵ and maternal mortality.¹⁶ In Hawai’i, Native Hawaiian, Pacific Islander, and Immigrant women were among the most affected by COVID-19,

The gendered effects that are manifested and exacerbated by the pandemic and by climate change, signals that we are at the echelon for inclusive systems that represent women’s voices.

where existing systemic inequalities have significantly deepened social, economic, and health disparities.¹⁷ The *2021 Global Gender Gap Report* indicates the pandemic has overall setback gender parity by 36 years—obtaining a new trajectory of now 135.6 years to close the gender gap worldwide.¹⁸

ramifications are already causing a plethora of challenges across political, social, and economic sectors worldwide.¹⁹ The climate emergency is bearing similar, compounding, and more catastrophic repercussions as the pandemic. Disparities are deepening, especially for women and mothers.

Society should not assume the next several years of global climate changes will yield any different outcomes. In fact, climate

Women are facing relentless patterns of discrimination such as sexual exploitation, unequal distributions of labor, forced displacement, lack of access to resources, health problems, and greater exposure to violence during environmental changes.⁷ In the wake of a disaster, like extreme storm systems, 83% of single mothers were unable to return home for 2 years following Hurricane Katrina. An estimated two-thirds of jobs lost after the hurricane were by women.²⁰

Research indicates climate change poses a significantly great threat to mothers and potential mothers:²¹

- Climate-induced stress on mothers can cause adverse birth outcomes such as preterm birth, low birth weight, and stillbirth;²²
- Pregnant people are more likely to give birth to premature, underweight, or stillborn babies when exposed to high temperatures and air pollution;²³
- Extreme heat is associated with stillbirth, preterm birth, premature rupture of membranes, and low birth rate;²⁴
- "Low-income pregnant women who live in cities often have little to no relief from the soaring temperatures due to older housing, the lack of greenery, and limited access to air conditioning."²⁵
- Black mothers are especially at the highest risk for preterm delivery from heat, and have less access to adequate health care, air conditioning, and safe housing;²⁶
- Risks for preterm birth are escalated by 52% for asthmatic mothers exposed to air pollution;²³
- Air pollution is linked to decreased fertility and increased risks of miscarriage, and is associated with 18% of preterm births globally;²⁴ and
- BIPOC mothers are more likely to live in close proximity to hazardous waste facilities or highly polluted areas.²⁸

Existing structures are deeply harming women and mothers. The gendered effects that are manifested and exacerbated by the pandemic and by climate change, signals that we are at the echelon for inclusive systems that represent women's voices.

A climate crisis coupled with set-backs to women and mothers during the pandemic has reached an alarming level and requires interconnected solutions. Women's representation needs to be uplifted, women need to be put in positions of leadership, and social well-being needs to be prioritized in order to effectively respond to the numerous inequalities they are experiencing first-hand. Women and mothers are uniquely positioned to make real and effective systemic changes. Their lived experiences, familial and community ties, and strong social capital puts them in positions to truly understand the problems and solutions that are needed to enact change. When women and mothers are in positions to lead, they will shift trajectories towards inclusive leadership and policies that better represent their interests and needs. Women should not only benefit more from policies and government actions, but they are also the ones who should design them, and reinforce their efficacy.²⁹

Women and mothers are uniquely positioned to make real and effective systemic changes. Their lived experiences, familial and community ties, and strong social capital puts them in positions to truly understand the problems and solutions that are needed to enact change.

Women and Mother-led Social Change Movements

Across the continental U.S., mother-led grassroots organizing is taking on issues such as drunk driving and gun control. *Mothers Against Drunk Driving* helped states pass tighter drunk driving laws, and *Moms Demand Action* has been lobbying congress for stronger gun control measures.³⁰ Across the Pacific-Asia Region, women and mothers are leading social change movements in environmental and cultural guardianship, ensuring sustainable and equitable futures, and in human rights advocacy. From leading marine conservation efforts in Fiji, advocating for clean air in India, or protecting sacred sites in Aotearoa, women and mothers are at the forefront of change.

Women and Mothers Leading Social Change in the Pacific-Asia Region

The Pacific-Asia region is one of the most geographically vulnerable to the impacts of climate change. Many countries and communities in the region are turning to Indigenous knowledge and women-led actions to envision renewed relationships with people and their environment, enforce regenerative practices, and increase peace building at the family level. Women and mothers are leading social change and creating hope for a resilient future. The information presented here uplifts bright spots at the intersection of climate and peace.

SINGLE MOTHERS' RIGHTS

China



A group of single mothers organized by *Advocates for Diverse Family Network* are exposing cultural stigma and legal barriers facing Chinese women when raising children outside of marriage. These Shanghai women have influenced the improvement of their rights, such as maternity benefits that include the right to make their own reproductive decisions, government payments for medical care, and paid leave.

CLEANER AIR

India



From Delhi to Kerala, *Warrior Moms* are a group of mothers advocating for clean air by empowering citizens, engaging with policymakers, and raising awareness on the harmful effects of air pollution; where nearly 98% of children and pregnant mothers in major Indian cities breathe unsafe air, causing an array of health problems.

EQUAL NATIONALITY RIGHTS

Malaysia



Kuala Lumpur moms, with support from *Family Frontiers*, launched legal action against Malaysia's citizenship law, Article 14(1)(b), which now grants mothers equal rights as fathers to confer citizenship to their overseas-born children. Because of this legal change, these children no longer have to be separated from their families, obtaining easier access to education and healthcare in Malaysia.

ENVIRONMENTAL GUARDIANSHIP

Indonesia



For the Indigenous Mollo people from Indonesia's Timor Island, the forests, mountains, and water are essential to their wellbeing. These environments are also fertile in oil, gas, gold, and marble. Mama Aleta Baun, founder of *Pokja OAT*, led more than 150 women and anti-mining activists to protest mining operations, forcing offshore companies to withdraw after destroying their natural resources.

MARINE CONSERVATION

Fiji



Women across Fiji are utilizing their traditional ecological knowledge to build sustainable and resilient marine ecosystems that address biodiversity loss and climate impacts. Eseta Naleba plays an active role in environmental conservation in her village of Tagaqe alongside her daughter, Maria Silovate, who honors the growing prevalence of women's roles in their coastal community.

WĀHINE BUILD

Hawai'i



Women across the island of O'ahu are playing a role in building strong, diverse, and resilient communities through *Honolulu's Habitat for Humanity's Wāhine Build* program. Women are given the tools, equipment, and the opportunity to learn essential skills in construction, while shedding a light on the affordable housing crisis in Hawai'i.

WEARING GENEALOGY

Sāmoa



The traditional tatau worn by women, known as the *malu*, is experiencing a cultural resurgence in Sāmoa. Women are living stories through genealogical imprinting on their skin while preserving their connective histories for future generations. These sacred tattoos connect women to their historical and cultural values, and support the reclamation of sacred feminine roles and identities through artistic expression.

PROTECTING SACRED SITES

Aotearoa



The *Save Our Unique Landscapes (SOUL)* campaign has led a community of Māori and cultural heritage activists to protect the sacred site of Ihumātao in South Auckland from housing development. In 2020, their work led to an agreement with the Crown and Auckland Council to protect land which is culturally valued for its ancestral links to early Māori settlement.

Maternal Activism in the Climate Movement

As global youth will inevitably bear the burden of climate-related effects, recent years have sparked an insurgence of moms in the climate movement who are advocating for their children's futures. A 2018 study, focused on U.S. mothers and climate change,³¹ reported that 81% of U.S. mothers are concerned about climate change, and 93% say they feel morally responsible to create a safe and healthy climate for themselves and their children. As such, intergenerational relationships are seen as a strong motivator for mothers to become politically active²¹ and engage in different forms of advocacy. Programs across the continental U.S. have channeled the social capital of mothers in climate action, forming prominent mother-led organizations such as *Science Moms*,³² *Mothers Outfront*,³³ and *Moms Clean Air Force*.³⁴

Efforts to uplift women and mothers in the climate movement is a central aspect to respond to the worsening effects of climate change. By creating spaces and opportunities that center women's voices and prioritize intergenerational relationships, climate justice can be better led by women and further addressed for generations to come. Yet, empowering and uplifting women is not enough. Social well-being needs to be simultaneously prioritized to ensure they are not being set up for failure. Sustaining women and mother's representation in civic spheres needs to come with the prioritization of wellness. Climate work should function through processes that are restorative, healing, bring joy, and are whole.

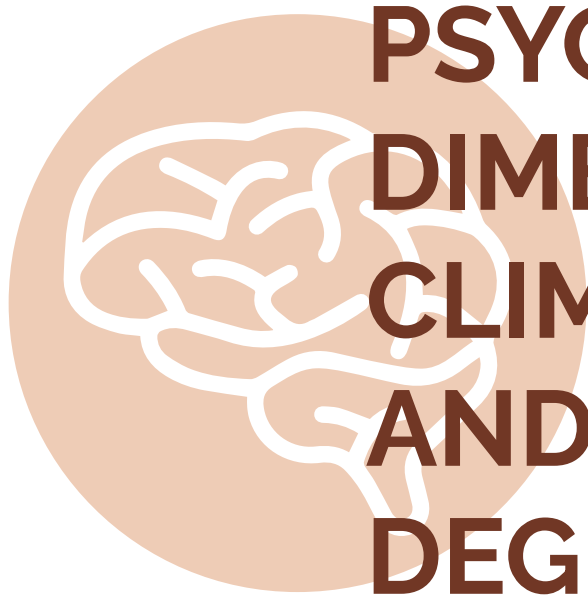
One study indicates 68% of working moms experience burnout compared to 42% of working dads in the continental U.S.³⁵ Working moms are additionally more likely to experience frequent exhaustion and fatigue at work than working fathers.³⁶ The 2021 *Hologic Global Women's Health Index*, reports women in 2021 were more stressed, angry, worried, and sad than 2020 or at any point in the last decade.³⁷ High levels of burnout, stress, concern, and responsibilities that are all too familiar for women and mothers, signifies that prioritizing social well-being is a guiding light forward to effectively advance and sustain women's representation. Peer-support, self-care, and engaging in meaningful activities are some ways to improve the mental health and well-being of women and mothers.

*Surfing Moms*³⁸ is an organization that exemplifies how peer-support, self-care, and meaningful activities go hand in hand to address maternal well-being. Surfing originated in Polynesia and carries great cultural and spiritual significance as a pastime, sport, and practice. Their "surf-swap system" allows mothers to tend to their needs by taking part in an activity they enjoy (surfing), while building pillars of support with other moms, and making sure their children are taken care of.

Social and cultural shifts are imperative to advancing affordable and quality childcare, parental paid time off, flexible working hours, and pay equity to alleviate burnout in the research described. Strengthening and cultivating better self-care practices, self-compassion, and engaging in meaningfully restorative practices can be synonymous with maternal activism and representation in the climate movement and in civic spheres.

Well-being is generally defined as: "the presence of positive emotions and moods, the absence of negative emotions, satisfaction with life, fulfillment, and positive functioning."³⁹ Integrating parallel efforts that extend into aspects of well-being within climate movements, solutions, policies, programs, and social justice causes, will ignite and encourage the full participation of women and mothers. Investing in women and mothers to thrive supports a new dynamic of activists who feel good about themselves, have confidence in their abilities, create the autonomy to follow their passions, and utilize their skills without depleting their reserves, are all indicators of social progress. Well-being is an integral factor that ensures that women and mothers have the capacity and autonomy to sustain their voices and presence in society as central changemakers.

By creating spaces and opportunities that center women's voices and prioritize intergenerational relationships, climate justice can be better led by women and further addressed for generations to come.



PSYCHOLOGICAL DIMENSIONS OF CLIMATE CHANGE AND ECOLOGICAL DEGRADATION

The psychological impacts of climate change put women, mothers, children and young people, BIPOC, LGBTQ+, transgender and gender-nonconforming individuals, low-income, pregnant people, and those who have pre-existing mental illness at heightened risk.⁴⁰ Climate change effects are associated with depression, suicide, post-traumatic stress disorder (PTSD), mood disorders, and disruptions in medication usage. In addition to the negative psychological implications that many people experience, eco-anxiety and solastalgia are growing psychological consequences due to climate change. Individual and collective action to mitigate climate change is proven to mitigate negative mental health outcomes, in addition to peer-support and engaging in courageous conversations. By focusing on the psychological dimensions of climate change, there is a significant opportunity to invest in preventative health to mitigate the negative psychological implications that follow eco-anxiety, solastalgia, and fear of climate change—while simultaneously aiming to advance climate action, and enhance our connections with each other, ourselves, and the environment.

Eco-anxiety and Solastalgia

The overwhelming enormity, uncertainty, grief, guilt, and fear that many people experience in response to the climate crisis can be inescapable and debilitating. Common psychological distress brought on by the climate crisis and environmental degradation, can be described as:



Eco-Anxiety (Climate Anxiety):

"The chronic fear of environmental cataclysm that comes from observing the seemingly irrevocable impact of climate change and the associated concern for one's future and that of next generations."⁴¹

Solastalgia:

"The pain or distress caused by the loss of a comforting place; the sense of desolation people feel, consciously or unconsciously, when their home or land is lost to e.g. road building, dam projects, deforestation."⁴²

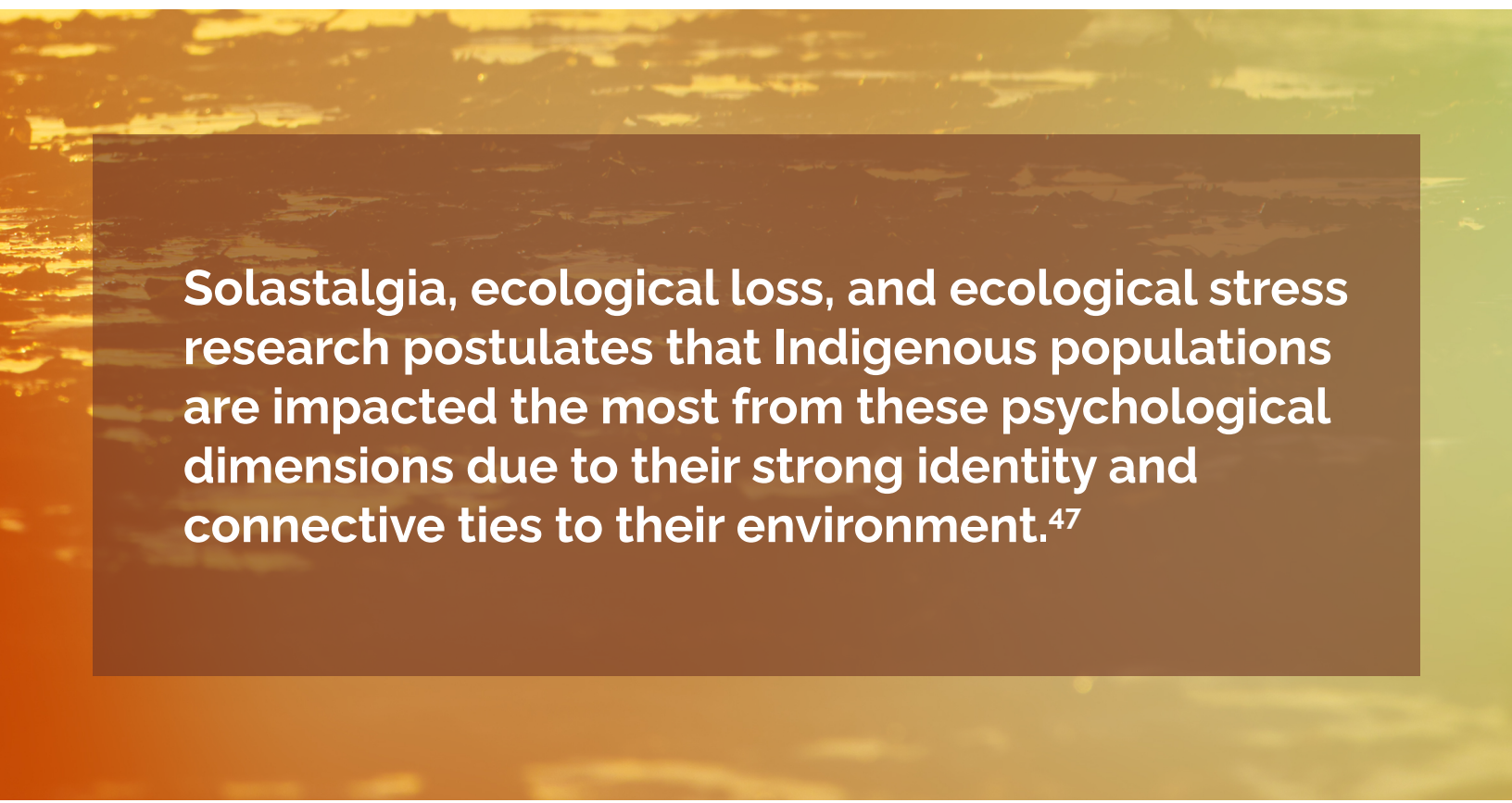


In a global survey on climate anxiety in children and young people aged 16-25, 84% felt moderately to extremely worried about climate change, and 75% felt frightened for the future.⁴³ In multiple peer-reviewed studies across the United Kingdom, Europe, and the continental U.S., research⁴⁴ shows women tend to be more vulnerable to eco-anxiety and experience eco-anxiety more frequently than men. Furthermore, the effects of eco-anxiety are conspicuously similar to postpartum anxiety, as many mothers are engulfed with worry and fear as they ponder on what the world will look like for their children.⁴⁵ In one study reviewed, nearly 9 in 10 (92%) U.S. mothers expecting a baby indicate climate worry, and 55% say becoming a mother has increased their concern about climate change.⁴⁶

Solastalgia, ecological loss, and ecological stress research postulates that Indigenous populations are impacted the most from these psychological dimensions due to their strong identity and connective ties to their environment.⁴⁷ Solastalgia has manifested into the perspectives and experiences of residents in Hawai'i, who are witnessing profound environmental changes to their homelands brought on by the climate crisis.⁴⁸ In Tuvalu, 95% of participants studied reported feeling anxiety about climate change and 87% report climate anxiety interfering with their daily life functioning.⁴⁹ Perceiving the enormity of climate change and ecological degradation is a psychologically distressing feat. When watching the news, getting informed, or by simply being aware of the climate crisis, many report experiencing negative emotions toward the future.

Negative feelings associated with climate change can be debilitating and can keep people in a perpetual state of ignorance—ignorance to address these negative feelings and ignorance to address climate change. According to the *Yale Program on Climate Communications*, the majority of Americans (64%) feel worried about global warming, yet 2 in 3 Americans (67%) rarely or never have conversations about climate change with their family, friends or peers.⁵⁰ This indicates that a majority of people are absorbing the immensity of the climate crisis in isolation. To make sure we are not harboring the weight of this crisis as individuals, and to mitigate negative mental health outcomes, we can begin to turn the debilitating aspects of eco-anxiety into action by having difficult conversations with others.

Talking about the problem opens up opportunities for connection and solutions. By beginning to have these conversations about climate change, and discussing our feelings and concerns towards it, we can enhance our understanding and connections with one another over this shared crisis. Additionally, by having these conversations, we can start to make meaningful behavioral changes in our daily lives and take actionable steps to mitigate climate change in our communities, countries, and further into the global landscape. Engaging in environmentally conscious individual and collective behaviors, and by fostering networks of community and support around this issue, negative mental health outcomes can be alleviated⁴⁰ and ecosystems of change can flourish.



Solastalgia, ecological loss, and ecological stress research postulates that Indigenous populations are impacted the most from these psychological dimensions due to their strong identity and connective ties to their environment.⁴⁷

Psychological Implications and the Natural World

Indigenous peoples and their knowledge systems share a close kinship with the natural world. They have long recognized how the health and well-being of the environment is intrinsically connected to the health and well-being of the people.

This research notes significant findings that explicitly link changes in the natural environment directly to mental health implications:

- Studies have shown a correlation between depression, anxiety, and PTSD with floods, hurricanes, droughts, and wildfires;⁵¹
- 54% of adults and 45% of children experience depression following a natural disaster;⁵²
- Air pollution is linked to anxiety, depression, and neurodevelopmental effects in children;⁵³
- Heat waves and droughts are associated with higher rates of suicide. Those taking medications—such as antidepressants and antipsychotics—are at increased risks, as such medications can disrupt the body's temperature regulation;⁵⁴
- Hormone therapy and other medical treatments can put transgender, LGBTQ+, and gender non-conforming people at an increased risk for heat-related illnesses;⁵⁵
- Women are more likely to experience climate-driven mental illness than men, and show higher risks of depression, PTSD, and emotional distress following disasters—closely linked to high prevalences of sexual violence;⁵⁶
- Pregnant and postpartum women are shown to experience increased mental illness, psychological and emotional stress, and trauma from extreme weather;⁵⁷
- During disasters, women, young people, and populations with low socioeconomic status are especially vulnerable to mood disorders and anxiety;⁵⁸
- Climate-induced migration and displacement is correlated with an increase in depression, anxiety, and PTSD—where it is projected that by 2050, 200 million people will be displaced by climate change.⁴⁰

Climate change will not only cause additional onsets for mental illness, but also intensify the vulnerabilities of those who have pre-existing mental illnesses. This puts women, children, gender-diverse individuals, pregnant people, and under-resourced and marginalized populations at increased risks for adverse health problems.

In a 2021 WHO Health and Climate Change Survey Report, researchers found only 9 out of the 95 countries surveyed included mental health and psychological support in health and climate plans.⁶²

Mental Health Care and Cultivating Resilient Communities and Individuals

Nearly 1 billion people are living with mental illness worldwide. Yet, in low to middle class countries, 3 in 4 people lack access to mental health care services.⁵⁹ In many parts of the Pacific-Asia Region, access to appropriate mental health care may be limited or not available.⁶⁰ BIPOC communities are additionally disproportionately impacted as contributing factors such as poverty, lack of access to resources, and greater exposure to climate-related events cause disruptions in the onset of mental illness and access to care.⁶¹ Indirect and direct psychological implications of climate change and ecological degradation are additionally affecting Indigenous peoples, women, mothers, pregnant people, children and young people, LGBTQ+, and transgender and gender-nonconforming individuals the most. Indicating enormous compounding mental health disparities for under-resourced populations and minority groups as the effects of climate change worsen. In a 2021 WHO *Health and Climate Change Survey Report*, researchers found only 9 out of the 95 countries surveyed included mental health and psychological support in health and climate plans,⁶² signifying the urgent need to expand mental health care into climate strategies, and disaster response and resiliency efforts.

Not only does mental health care need to be elevated, but also the cultivation of individual and community resilience and ecological empathy to cope with the subsequent psychological implications induced by the climate crisis. Cultivating individual resilience can begin by fostering optimism and hope, finding personal meaning and self-worth, nurturing sources of support, and strengthening place-based connections.²² Resilient communities are “Communities that continue to function despite experiencing adversity.”²² These communities hold high levels of social cohesion: “Strong networks of individuals and local organizations willing and able to work together, and a sense of trust among community members.”²² In the context of climate change, climate-resilient communities can engage in

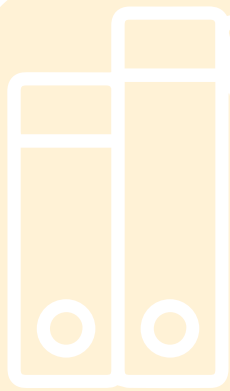
Recognizing the important role the environment plays in sustaining life—and the enormous threat that is up against it—can encourage us to heal our planet and our relationship with it.

activities that preserve cultural connections and build social cohesion, expand and invest in mental health services, craft disaster response and recovery plans, and encourage inclusive community involvement.²² On O’ahu, one example is *Wāhine Build* by *Honolulu’s Habitat for Humanity*, which is channeling the power of women to build strong, diverse, and resilient communities by building houses to address the affordable housing crisis in Hawai’i.^F

Ecological Empathy encompasses realizing and feeling the intrinsic connections we hold with the living environment, and therefore living sustainably and in harmony with the natural world—recognizing that harm to the planet harms us too. Building ecological empathy can help individuals and communities become better stewards of the land.⁶³ By understanding the value and connections we have between ourselves and the environment, spending time in nature, and increasing our capacities for empathy and connection to our natural surroundings, we are better equipped to respond to environmental challenges and enhance our ecological stewardship. Recognizing the important role the environment plays in sustaining life—and the enormous threat that is up against it—can encourage us to heal our planet and our relationship with it.

The global mental health crisis will continue to grow due to the worsening effects of climate change and ecological degradation. Therefore, inclusive, equitable, and integrative efforts for mental health care and support in climate frameworks are needed. A well-rounded, holistic approach that prioritizes mental health and climate action—strengthening the resiliency and relationships of individuals, communities, and the environment—is critical to respond to the changing climate and its psychological implications.

The global mental health crisis will continue to grow due to the worsening effects of climate change and ecological degradation. Therefore, inclusive, equitable, and integrative efforts for mental health care and support in climate frameworks are needed.



UPLIFTING AND EDUCATING WOMEN AND GIRLS IN CLIMATE CHANGE

The gendered effects of climate change are imminent and evident. This crisis exposes substantial threats to health, well-being, safety, security, education, autonomy, and opportunity. Protecting women, girls, femme identifying, and gender-diverse people's fundamental human rights, and uplifting their interests and needs, is vital to respond to the changing climate. Their roles in climate mitigation, adaptation, and resiliency—and in sustainable development and peacebuilding—is pivotal to end the perpetuation of injustices. By ensuring full and inclusive participation and leadership, we can better address the needs and social well-being of women, girls, gender-diverse persons, and youth and future generations, while simultaneously improving planetary health.

Research indicates that advancing women to leadership positions can reduce carbon emissions, strengthen conservation efforts, advance climate mitigation policies, improve children's health and education levels, and advance peacebuilding efforts.⁴ However, women remain an underutilized social and political resource, and are globally underrepresented at all levels of decision-making. The urgency to advance gender equality, equitable inclusion, and climate action by creating entry points and opportunities for capacity building, education, advocacy and activism, and in leadership and decision-making positions has risen. By prioritizing women and girls' education in climate work, they are better equipped to respond to the changing climate, dismantle systems of oppression, and emerge as global leaders. Moreover, they become the necessary change leaders who create peaceful and sustainable societies.

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Advancing Gender Equality and Climate Justice

Gender inequality is one of the most serious barriers to an inclusive, sustainable, and peaceful world. Systemic roadblocks stunt half of the world's population from inclusive and equitable opportunities—largely based on gender. As evaluated through data, research, and lived experiences during this project, existing inequalities deepen when coupled with the global climate emergency. Gendered-disparities seen on socio-economic scales within societies and systems reveal the avenues in which climate change will exploit already fractured sectors.

From an economic standpoint, globally, women earn 63% less income than men⁶⁴ and spend 2-10 times more on unpaid care work.⁷ *The World Bank* reports that the gap between women and men's lifetime earnings globally is \$172 trillion—almost two times the world's annual GDP.⁶⁵ Women and girls worldwide are overrepresented among the poor, and nearly 330 million women and girls live on less than \$1.90 a day.⁷ In the Pacific-Asia Region, women spend four times more on unpaid domestic labor than men,⁶⁶ and have notable gender-imbalances in the labor-force.⁶⁷ In the Pacific, men outnumber women 2:1 in paid occupations.⁶⁸

Globally, 1 in 3 women have experienced physical or sexual violence.⁶⁹ Within their lifetimes, 30 million girls aged 15-19 will have experienced forced sex,⁷⁰ and in the Pacific-Asia Region, 60-80% of women experience physical or sexual violence.⁷¹ The *Missing and Murdered Indigenous Women and Girls* (MMWIG) epidemic is an example of aggravated systemic inequities operating together. Indigenous women have murder rates 10 times the U.S. national average, and 4 out of 5 Indigenous women have experienced violence in their lifetime.⁷² Indigenous women often measure lower on education surveillance studies and literacy benchmarks, and are more likely to experience poverty, lack equitable access to health, sanitation, credit, and employment, and have limited participation in political spheres.⁷³ Their rights to self-determination, self-governance and control of resources and ancestral lands have been historically exploited.⁷³ In Hawai'i, Kānaka 'Ōiwi (Native Hawaiians) are overrepresented among sex trafficking data, representing 67-77% of sex trafficking victims and 37% of reported child sex trafficking cases.⁷⁴

All of these examples illustrate systems of imbalance, unrest, and lack of peace.

Women and girls are being failed by unequal power dynamics in existing systems steeped in patriarchy and colonialism. Researchers estimate that it will take 135.6 years to achieve gender parity worldwide.¹⁸ Meaning that numerous generations of women—our daughters, granddaughters, great granddaughters, great great granddaughters—will still be living within broken systems, and tirelessly trying to overcome them. As the effects of climate change worsen, these already far reaching gendered-disparities, that are materialized by systemic injustice, will be further exploited and exacerbated.

This research recognizes data findings and research implications evaluated do not reflect the entire gender spectrum. Such gaps are highly indicative of the gender binary evident in conventional methodologies. It also points to the overall scarcity of disaggregated data that includes the perspectives of non-binary, gender non-conforming, and LGBTQ+ groups.

Climate Change Disproportionately Affects Women, Mothers, and Girls:

- 80% of people displaced by climate change are women and girls;⁷⁵
- Women are less likely to survive disasters, and more likely to be injured;⁷⁶
- Women and children are 14 times more likely to die in a disaster than men;⁷⁷
- There are significant spikes in gender-based violence against women and girls following and during disasters and crises—including domestic violence, rape, sexual exploitation, female genital mutilation, human trafficking, and forced marriage;⁷⁸
- Women face greater health risks overall from climate change than men, and are more likely to suffer climate-induced food insecurity;⁷⁹
- Women and LGBTQ+ individuals are at higher risks of experiencing food shortages, financial hardship, and exposure to violence following climate-related events;⁶⁶
- Pregnant people and fetuses are put at risk due to pregnancy complications following exposure to heat, air pollution, disasters, and infectious disease;⁷⁹
- Women and girls have less access to relief, assistance, and health services in the aftermath of climate shocks;⁷⁶

Gender-blind climate and environmental policies and frameworks perpetuate and create conditions for heightened risk, with disproportionate impacts, to diverse women, girls, and sexual and gender minorities.⁸⁰ The nexus between gender and climate change are apparent. Climate change, compounded with overarching systemic inequalities, widens disparities and discriminatory patterns felt by these groups. This makes them less likely to recover and adapt to climate-related impacts, when they ought to be in the best positions to lead. Shifting our focus to the needs and leadership of women, girls, and gender-diverse peoples, recognizing the compounding and intersectional forms of discrimination that are manifesting, and pushing for deep transformative system-wide change is imperative.

This can be achieved through numerous strategies:

- Actively and purposefully advocating for equitable and inclusive representation in leadership;
- Supporting women and gender-diverse individuals in positions of power;
- Eradicating laws and policies that discriminate against gender;
- Promoting sociocultural shifts that stray away from oppressive gender biases; and
- Intentionally creating avenues for education, opportunity, and autonomy—especially in the context of environmental peacebuilding—for a more participatory and equal society.

This research recognizes data findings and research implications evaluated do not reflect the entire gender spectrum. Such gaps are highly indicative of the gender binary evident in conventional methodologies. It also points to the overall scarcity of disaggregated data that includes the perspectives of non-binary, gender non-conforming, and LGBTQ+ groups. Gender equality is about inclusive, diverse, and equitable representation and opportunities. Current systems are failing women, girls, LGBTQ+, and gender-diverse individuals. Therefore, equitable inclusion of women, girls, transgender, non-binary, sexually-diverse, and gender non-conforming individuals need to be uplifted and prioritized to ensure policies and programming include the interests, needs, and data of these and all groups.

Prioritizing Climate and Peace Education for Women and Girls

Estimates show 129 million girls are out of school⁸¹ and women make up two-thirds of the world's 796 million illiterate people.⁸² In the Pacific-Asia Region, 16 million primary-school aged children and 34 million adolescents are out of school.⁸³ In the Solomon Islands, less than 1 in 10 (7%) of adolescent girls complete secondary school—one of the lowest rates in the world.⁸⁴ The *Malala Fund* reports that by 2050, climate change will prevent 12.1 million girls from completing their education each year, and in 2021 alone, 4 million girls in low to middle income countries were unable to complete their education due to climate-related events such as flooding, droughts, storms, and exposure to disease.⁸⁵ Climate-related displacement accounts for refugee girls to be half as likely to be in school as refugee boys.⁷

Unequal access to quality education prolonged by climate change and thwarted by gender inequalities is a missed opportunity for both individuals and societies. Education is a pivotal aspect to climate justice and gender equality as it plays a critical role in a women's agency, opportunities, freedom from violence, and health.⁸⁶ By educating women and girls, society unlocks “the potential to improve health, nutrition, social justice, democracy, human rights, social cohesion, and economic prosperity for current and future generations.”⁸⁷ Closing gender gaps in education can furthermore improve countries' climate mitigation, adaptation, and resilience measures.⁸⁸ Research indicates that the ripple effects of investing in women and girls' education manifest increased gender equality, intergenerational prosperity, stronger GDP, more women in leadership roles, smaller healthier families, delayed marriage and pregnancy, increased employment opportunities, and more peaceful societies.⁸⁷

Policies that improve women's education are associated with lower rates of adolescent pregnancy, increased economic opportunities, greater impacts against organized violence,⁸⁶ and are more likely to drive economic growth.⁸⁷ Girls' eventual wages are estimated to increase by 10-20% for every additional year of primary school completed, while also encouraging them to have fewer children and marry later in life, making them less vulnerable violence.⁸² The *Yale Program on Climate Communications* reports that women have greater risk perceptions of climate change impacts than men, and improving the education of women and girls is one of the top solutions for reducing greenhouse gas emissions.⁸⁹ Reports indicate that by ensuring girls' rights to 12 years of free, quality, and safe education, countries and communities are in better positions to respond to the effects of climate change, where “increasing gender equality through investment in education will lead to stronger and more equitable climate adaptation efforts, improved mitigation of greenhouse gas emissions and greater climate resilience in societies and communities.”⁸⁸ Peace education is also seen as a significant focus for women and girls—and in all educational spaces—defined as “the process of acquiring the values, the knowledge and developing the attitudes, skills, and behaviors to live in harmony with oneself, with others, and with the natural environment.”⁹⁰ Substantial opportunities for learning about human rights, non-violence, environmental responsibility, gender equality, co-existence, and conflict resolution and more exists within peace education curriculum.⁹⁰

By prioritizing and improving women and girls' access to quality education—especially in climate-related and peacebuilding focuses—they are better equipped to make effective and lasting change. In turn, these priorities transform systems away from oppression and contribute to creating more peaceful, sustainable, and equitable societies.

Women and Mothers in Positions of Power

Women, transgender, non-binary, and gender non-conforming peoples are heavily underrepresented in formal decision-making positions worldwide—where nearly 67% of these positions are held by men.⁶⁶ The Pacific Islands region has the lowest female representation in politics in the world,⁹¹ and in the Pacific-Asia Region, there is 1 woman for every 4 men in a leadership position.⁶⁷ The vast underrepresentation of women in decision-making and leadership positions signals the need to be intentional about shifting the patriarchal paradigm that skews power in the direction of those who already have so much of it and stunts the potential for a better, healthier, peaceful, and inclusive world.

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By placing women in positions of power...

- Laws, rulings, and decisions are more likely to be inclusive, representative, and include diverse perspectives;⁹²
- Women in leadership roles are correlated with supporting equality and social welfare, more likely to advocate for education and health policies—and in parliamentary roles—more likely to pass and implement legislation that supports gender equality and addresses gender-based violence;⁹³
- By providing childcare to women without it, more women could enter the workforce and global GDP could rise by \$3 trillion;⁹⁴
- When more income is put into the hands of women, child nutrition, health, and education improves;⁸²
- Higher income and increased economic autonomy for women in the Pacific, leads to increased spending on food and education resulting in improved outcomes for children's education, health and nutrition, and greater and sustained poverty reduction;⁶⁸ and
- In official or grassroots peacebuilding efforts, women's participation leads to an increase in lasting peace agreements making it 64% less likely to fail.⁹⁵

Mothers in leadership positions are seen as highly valuable to businesses and organizations. In *Bright Horizons' Modern Family Index 2018*, researchers found that 91% of working Americans agree that mothers bring unique skills into leadership roles—where mothers are particularly found to be better listeners, calmer in times of crisis, better team players, and more diplomatic.⁹⁶ Additionally, 89% of working Americans agree that working moms in leadership roles bring out the best in their employees; 85% agree that more mothers are needed in leadership positions—and that being a mother helps women to succeed as business leaders—and 84% believe that mothers as leaders will make a business more successful.⁹⁶

In the context of climate change, when women are uplifted and in leadership positions, studies show sustainable and local economies grow, children's health and education levels improve, populations stabilize, and responses to disasters and crises are systemically stronger.⁴ Countries with higher female parliamentary representation are additionally more likely to set aside protected land areas.⁸² Furthermore, women leaders show a correlation with strengthened conservation efforts and support on climate mitigation policies—resulting in decreased emissions—in addition to increased transparency and disclosure on climate impacts and carbon emissions data.⁹⁷ A study on climate messaging by *Potential Energy Coalition* reports that women are most receptive to climate messages, show higher levels of “support for government action on climate change”, and are more likely to be climate advocates. Their best performing climate ads feature “women in conversation with other women, specifically moms in conversation with other moms.”⁹⁸

Women and mothers are uniquely positioned to be effective leaders in a multitude of spheres and are proven to have the adaptive capacities to respond to the changing climate to ensure a better world for all. However, approximately 2.5 billion women and girls live countries with at least one discriminatory law,⁹⁹ and it is estimated that by 2030, nearly half of all women and girls will still face discrimination in opportunities for leadership.¹⁰⁰ Indicating the enormous amounts of work that needs to be done to not only create entry points and opportunities—but also to promote sociocultural shifts within power dynamics and in the way we view women, girls, and gender-diverse participation and leadership. By intentionally placing women and mothers in positions of power, gendered-disparities, children's rights, economic growth, ecological stewardship, climate action, mitigation, and resiliency, and positive peace will improve. Therefore, it is all encompassing to advance gender equality and climate justice to turn the tide to a more inclusive, diverse, and sustainable future that represents the holistic spectrum of society.



ENGAGEMENT WITH LOCAL AND COMMUNITY-BASED PROGRAMS

Implementation of international dialogue in local and sub-national levels is a challenge many organizations face in a region as vast as Asia and the Pacific. By leveraging women-led and place-based solutions, ground-up advocacy efforts can be tailored to the specific impacts certain communities face whether atoll or metropolis. Further engaging people at the local and community levels can unlock the potential to form creative solutions, integrate traditional and place-based knowledge, utilize existing solutions, and advance social cohesion and community resilience. As environmental changes are accelerating violent conflict,¹⁰¹ when mobilized from a community-centered grassroots approach, communities are better apt to respond to challenges and contribute to achieving long-term sustainable peace.

Significance of Local and Community-Grouped Efforts

Deeper levels of engagement with local and community-based programs—that address climate change from the ground up—are important to consider. Climate change is an enormous global threat, needing a well-rounded approach. While top-down solutions are urgently needed to drastically shift the trajectories of global warming, grassroots actions can effectively respond to place-based needs. Place-based solutions can effectively respond to the unique effects of climate change certain communities face, in ways that national and international solutions can not. Local, grassroots, Indigenous, and community-based programs make it possible to not only see tangible results, but also provide specific places, groups, communities, and cultures an avenue to effectively respond to global climatic change—giving communities the opportunity to address climate change meaningfully as it

The Global Risks Report 2022 finds that Social Cohesion Erosion is the fourth most severe global risk over the next 10 years after (1) Climate Action Failure, (2) Extreme Weather, and (3) Biodiversity Loss.¹¹³ Indicating that not only will climate action be paramount to ensure the safety, stability, and health of the global society, but also solidarity and positive peacebuilding.

manifests.¹⁰² By investing in communities and taking local action to mitigate and respond to the climate crisis, culturally-responsive, sustainable, and effective solutions can be implemented, while simultaneously expanding opportunities to advance social cohesion, positive peace, and resiliency.

Climate change is a prevalent driving force behind the occurrences of disasters and events being widely felt by populations especially in the Pacific. Pacific Island countries such as Kiribati, Tuvalu, and Nauru have experienced climate-related impacts that are felt by the majority of their populations. In the past 10 years, 94% of the population in Kiribati, 74% of the population in Nauru, and 97% of the population in Tuvalu have reported being

affected by natural disasters.¹⁰³ Pacific Island countries are furthermore experiencing climate-related impacts that threaten food and water security, identity, migration, ecological degradation, and sovereignty.¹⁰⁴ In response, communities in the region are leading efforts to adapt, respond, and mitigate these effects using traditional practices and science-based approaches that enhance the resiliency of their communities and ecosystems. The results of these community-grounded efforts are leading to the prioritization and implementation of the *Sustainable Development Goals* and the improvement of local development.¹⁰⁴ Pacific Island communities are leading the way in nurturing sustainable and reciprocal relationships with the environment, where their strong dependence “on their ecosystems for food, livelihoods and traditional practices, provides opportunities for demonstrating how climate adaptation projects can result in direct benefits to both ecosystems and human well-being.”¹⁰⁴

As disaster trends are impacting the Pacific-Asia Region more frequently and intensely, and are making it difficult for communities to recover, women in the region are leading community-wide efforts to enhance the social and ecological resilience of their communities. Women in Papua New Guinea are leading efforts to restore mangrove forests—an essential marine ecosystem—home to diverse marine life and crucial in slowing ocean surges and king tides.¹⁰⁵ Nature-based solutions like mangrove forests prevent \$82 million in flood damages each year.¹⁰⁶ In Vanuatu, women are watching over their communities through *Women's Wetem Weta* (Women's Weather Watch) and taking the lead in disaster preparedness and emergency response planning, even in rural areas.¹⁰⁷ The KAWAKI *Women's Network* in the Solomon Islands is uniting women in conservation, culture, and community for ensuring a better future for their children. Their grassroots efforts span across ecotourism, conservation education, and sea turtle protection.¹⁰⁸ Community-grounded efforts not only respond to climate-related events, but also end up benefiting the resilience of communities, catalyze new ways of stewardship and ecological reverence, and place these communities in better positions to mitigate, adapt, and thrive in times of climate adversity. While community-based grassroots efforts and initiatives have positive trajectories for sustainable development, resiliency, and adaptation measures, more investment into grassroots efforts is needed to fund these projects and initiatives. Pacific Islands and community-based funding may be overlooked based on small populations of impact being recorded, remote or rural proximities, or lack of data and access.¹⁰⁴ Additionally, BIPOC-led organizations are reported to receive a miniscule portion of philanthropic funds in the U.S., and grassroots organizations are only reported to receive 5% of environmental funding.¹⁰⁹ Signifying the need to uplift opportunities and larger bodies of data that explore the benefits of implementing and investing in local, Indigenous, community-grounded, grassroots groups and organizations who sit at the frontlines of the climate crisis.

Cohorts and Community Groups

Fostering integrative spaces within communities—led by compassion and understanding—to enact meaningful change, is needed. Building communities of practice around solutions and ideas is the birthplace for positive peace and climate adaptation, resiliency, and mitigation efforts to be cultivated. Research suggests that cohorts and cohort-based learning—“a collaborative approach to learning in which students or individuals advance together throughout the duration of a course, program, or project”¹¹⁰—can be an effective way to promote deep levels of engagement. Cohorts fulfill the need for community, connection, and capacity-building.

As people engage in real-time discussions and learn from each other through different mediums, it helps them grow both professionally and personally. Researchers have also found that people perform better when they work or study collectively.¹¹¹ While simultaneously nurturing networks of peer-support, within a cohort model, the ability to catalyze solutions can be energized through entry points that promote information and education, collaboration, and policy transformation. Where opportunities lie in community-building, strengthening educational capacities, and enhancing social networks and solidarity. By centering holistic community learning and engagement, people are connected that have similar goals and diverse perspectives, ultimately benefiting all involved.

In Palau, a workshop put together by *The Nature Conservancy* in 2017, brought together 19 women from across the Pacific (Marshall Islands, Palau, Yap, Kosrae, Chuuk, Pohnpei, and Papua New Guinea) to discuss climate change in the Pacific.⁷¹ Discussions delved into the gendered-impacts of climate change, local adaptation efforts, the integration of cultural preservation and traditional knowledge, policy and governmental issues, and more. Executive Director of *Women United Together Marshall Islands* (WUTMI), Kathryn Relang, says: “We want a collective approach to issues, so we need to sit together and listen to each other. It is an opportunity to see the similarities we have and learn from our differences. It brings us together when we have a common issue, it makes us stronger.”⁷¹ These women from across the Pacific with shared interests in climate change,

As environmental changes contribute to conflict, violence, and social friction, there also lies propensities for peace.

conservation, and sustainable development, engaged in meaningful dialogue with other women from a diverse range of ages, perspectives, and backgrounds—from mothers, farmers, civil society workers, executive directors, and youth and community-leaders. Rebecca John from the Mejit Island of the Marshall Islands says: “As mothers of our families and of the community, we need to do something to address the impacts of climate change. We are very worried about the changes we are seeing.”¹¹² Kiki Stinnett of the *Chuuk Women's Council* says: “It is important for women to come together and share and exchange ideas and challenges we face through climate change. It is a great opportunity for us to dialogue about how we can make things better on the islands...There is so much we can learn from each other. We're so unique in our different ways, yet we have so much in common in our island settings.”⁷¹ Susuan Pukuop from Papua New Guinea learned how Yap people are preserving their taro and how Marshall Islanders are preserving their breadfruit—crops that have “high cultural value and are traditionally significant” across Pacific Islands Countries.⁷¹ These 19 Pacific Island women also discussed ideas about saltwater intrusion, organic farming, soil health, coastal restoration, migration, water insecurity, and food shortage. Among climate-hardships and solutions discussed, dialogue also turned into discussions on ancestral lands, culture and tradition, violence against women, gender inequalities, and more. This space allowed women to share their stories of resilience, survival, and hope,⁷¹ and gave them an opportunity to listen, support, and learn from each other. Highlighting the enriching opportunity of cohorts and community groups to enhance solidarity, collaboration, and connection that contribute to the mobilization of ideas, policy transformation, sustainable development, solutions, and climate action.

Social Cohesion and Positive Peace

The *Global Risks Report 2022* finds that Social Cohesion Erosion is the fourth most severe global risk over the next 10 years after (1) Climate Action Failure, (2) Extreme Weather, and (3) Biodiversity Loss.¹¹³ Indicating that not only will climate action be paramount to ensure the safety, stability, and health of the global society, but also solidarity and positive peacebuilding. Climate change is transpiring and accelerating a multitude of conflicts. A strain on relationships, natural resources, interpersonal violence, and social friction, are some ways subsequent climate-related impacts can ensue at the community level.¹¹⁴ Barriers to social resilience and social cohesion include: basic needs not being met, discrimination and polarization, lack of capacity or opportunities, fear, economic disparity, underlying tensions, dwindling resources, and systemic oppression, among others.¹¹⁵ Research indicates that social factors and social cohesion are fundamental for communities facing large-scale disasters.¹¹⁵ Indicating the imminence of cultivating positive peace and building social cohesion within communities—especially within under-resourced, conflict-affected regions that are experiencing the impacts of climate change more intensely. Signifying that equity, social cohesion and solidarity, positive peace, and climate action will be vital, interdependent facets to adapt and respond to a warming world.

Bringing people together over shared environmental interests to build positive peace—and acknowledging environmental issues and implications on global peace and conflict—is what environmental peacebuilding¹¹⁶ aims to accomplish. Environmental peacebuilding is also defined as “the conflict-sensitive and sustainable management of renewable natural resources in conflict-affected or post-conflict states—that supports the ecological foundations for a socially, economically and politically resilient peace.”¹¹⁷

Environmental changes and climate-related impacts are causing conflict and violence to occur. For example, the inevitability of climate-fueled and induced mass migrations—that millions are already experiencing—can lead to interpersonal and political conflict, violence, terrorism, and war.¹¹⁴ For women and girls displaced by climate change, being of migrant or refugee status increases their exposure to violence such as sexual violence, forced marriage, and human trafficking.¹¹⁸ Additionally, food insecurity, water scarcity, crop failure, diminishing resources, and economic disparity, are just a few adverse implications that emerge from climate change that amplify the risks for conflict and violence.¹¹⁹ Furthermore, conflict and violence are ignited when storms, flooding, droughts, heat waves, wildfires, and disaster upend people’s sense of stability.¹⁰¹ By 2030, is estimated that climate change will push up to 132 million people into poverty, and extreme weather and natural disasters will cause 33.4 million new internal migrations worldwide.¹¹⁹

Countries with high levels of positive peace have higher rates of stability and resiliency, recovering more efficiently from internal and external shocks.²

As environmental changes contribute to conflict, violence, and social friction, there also lies propensities for peace. Cultivating positive peace is a powerful way to build and preserve social cohesion and climate resiliency. The *2022 Positive Peace Report* indicates positive peace as a transformational concept and a “prerequisite for the survival of humanity in the 21st century. Without peace, it will not be possible to achieve the levels of trust, cooperation and inclusiveness necessary to solve these challenges, let alone empower international institutions and organizations necessary to address them.”⁷² High levels of positive peace are explicitly linked to “higher GDP growth, better environmental outcomes, higher measures of well-being, better developmental outcomes, and stronger resilience.”⁷² Additionally, the *Global Peace Index 2022* indicates positive peace as “a measure of societal resilience” and is correlated with improved socio-economic outcomes such as higher income, inclusive governance, increased economic stability, and transparency.¹²⁰ Furthermore, countries with high levels of positive peace have higher rates of stability and resiliency, recovering more efficiently from internal and external shocks.²

By building communities around the issue, enhancing the resilience and social cohesion within communities, and increasing the agency for women and community-grounded solutions, we can broaden opportunities for both positive peacebuilding and environmental peacebuilding. Community mobilization, sustainable development and management of natural resources, and cultivating ways to build social cohesion and positive peace, are proving to be vital facets to respond to the challenges of climate change. Strengthening the connections we have with others on the individual, policy-making, and organizational levels can greatly contribute to enhanced social resilience, positive peace, equitable inclusivity, and effective change.

“Make connections and treat people with dignity and respect. Climate diplomacy may be daunting but at the end of the day it’s a world map of people. Your roles in the climate fight may change over time, but the bonds and relationships with others will drive community forward.”¹¹³⁹

– H.E Thilmeeza Hussain, UN Representative for the Maldives



UTILIZING INTERGENERATIONAL APPROACHES AND INDIGENOUS KNOWLEDGE

Intergenerational approaches recognize the multidimensional influence generations have on one another as significant intervention points for climate-resilient actions. To create long-term behavior change within individuals and systems, shared cultural values and relationships activate social change. Thus, ancient wisdom carried by Indigenous peoples sitting at the forefront of climate knowledge systems enhance the resilience and conservation within their ecosystems, and for the world. Through diverse perspectives, creative solutions, and meaningful connections, multicultural and intergenerational approaches kindle significant action and lasting change for protection and peace and are a cornerstone of Indigenous and traditional ecological knowledge practices.

Intergenerational Equity

For mothers, caregivers, parents, guardians, and maternal figures, the looming concern of climate change is ever present when pondering the state of the world children are stepping into. The worsening effects of climate change, and inevitable calibers of climate and ecological collapse global youth and future generations will experience, is unprecedented. Global youth have contributed the least to climate change, yet children born today will face up to 7 times more extreme climate-related events in their lifetimes than their parents and grandparents.¹²¹ 1 billion children (almost half of the world's children) live in extremely high climate-risk countries, and globally 1 in 7 children are exposed to at least 5 climate and environmental shocks.¹²² In low income countries, today's youth will face the most significant increases in lifetime exposure to extreme events,¹²³ and across 12 countries in the Pacific-Asia Region, 77% of children have noticed an increase in climate-related disasters locally.¹²⁴

Therefore, assessing intergenerational dynamics and working to increase multigenerational solidarity are crucial ways to respond to the climate crisis. Intergenerational Equity describes “meeting the needs of the present without compromising the ability of future generations to meet their needs.”¹²⁵ Working to include intergenerational equity is pivotal to respond to the disproportionate climate-related challenges youth and future generations will shoulder in the long-term. Global movements such as *Parents for Future*,¹²⁶ *Our Kids' Climate*,¹²⁷ and *Extinction Rebellion Families*¹²⁸ are channeling the power of intergenerational relationships and spotlighting the significance of intergenerational solidarity in the climate movement—aiming to bridge the gap from generational issues to shared issues.

Integrating intergenerational approaches recognize multidimensional influences, and the interdependent and interconnected nature that exists between generations.¹²⁹ Forming healthy, respectful, empathetic, and compassionate dialogue and rhetoric between children, parents, caregivers, guardians, grandparents, teachers, students, relatives, youth activists, and world leaders—and other diverse forms of intergenerational relationships—is important to better understand, learn, connect, and enact effective change. By engaging in healthy and safe dialogue—especially between children and their parents or caregivers—the bonds between them will strengthen. In the context of climate change, these conversations between a parental figure and their child could advance actions towards environmental sustainability; pointing to the influential aspects each generation has on environmentally-conscious behaviors.¹³⁰

Studies show that parental perceptions and engaging in family-based discussions on climate change can prove to be significant intervention points to enhance climate mitigating behaviors among children.¹³¹ Research also indicates that children prove to be

highly influential among parents and can inspire adults towards higher levels of concern on climate action. Studies accentuate the inroads children can make on their parent's social-ideologies. As one study posits that because children are less susceptible to particular worldviews or political ideologies, climate change perspectives can be shifted among parents who have lower levels of concern and higher levels of skepticism.¹³² This study indicates that parents who identified as male or conservative, doubled their concern levels on climate change after engaging in child-to-parent intergenerational learning, in which daughters were found to be particularly effective in influencing parental perception.¹³²

Having multidimensional and intergenerational conversations with a diverse set of views, can cultivate greater degrees of understanding, compassion, and empathy. The potential to overcome barriers to climate change concern—providing a safe space to learn and discuss climate change—bring generations together to advance climate justice. Moreover, the opening and nurturing of communicatory channels that sustain the transfer of knowledge, build stronger connections between family members and generations. Enhancing intergenerational solidarity and responsibility can narrow the gap between generational issues and ensure that we are working together towards an equitable and sustainable world for current and future generations to come.

"Climate change is a challenge that few want to take on—But the price of inaction is so high. Those of us from Oceania are already experiencing it first hand. We've seen waves crashing into our homes and our breadfruit trees wither from the salt and drought. We look at our children and wonder how they will know themselves or their culture, should we lose our islands. Climate change not only affects us islanders, it threatens the entire world. To tackle it, we need a radical change of course. This isn't easy, I know. It means ending carbon pollution within my lifetime. It means supporting those of us most affected to prepare for unavoidable climate impacts. And, it means taking responsibility for irreversible loss and damage caused by greenhouse gas emissions. The people who support this movement are Indigenous mothers like me, families like mine, and millions more—standing up for the changes needed and working to make them happen."¹³³

– Kathy Jetñil-Kijiner, Poet and Climate Change Activist from the Marshall Islands

Indigenous Wisdom

Indigenous peoples have long recognized the intrinsic connections society shares with the natural world, and are exemplary stewards of land, supporting 80% of the world's biodiversity.¹³⁴ The ancient wisdom carried by Indigenous peoples creates experts steeped in local ecological knowledge, whose holistic approaches help to enhance the resilience and conservation within their ecosystems. Through diverse perspectives, creative solutions, and meaningful connections, multicultural and Indigenous approaches have kindled significant action and lasting change for protection and peace for countless generations.

Indigenous knowledge and practices have been greatly oppressed from scientific dialogues, governance, and institutions. Therefore it is more important than ever for Indigenous voices to be at the forefront of the climate crisis to re-envision our relationship with the natural environment; ultimately shifting away from profit-driven, colonial, and exploitative measures. Kānaka 'Ōiwi (Native Hawaiians) have long lived by the practices of *mālama 'āina*. These traditions encompass caring for, and having reverence for, the land. It also describes the reciprocal relationship we have with the natural world. *Mālama 'āina* teaches us how we can be mindful, compassionate, and respectful cohabitants with Mother Earth, and is an hallmark of Indigenous knowledge which is carried intergenerationally through matriarchal values. The Pacific concept of *mālama moana* expresses similar reverence for the protection of Oceania and her marine resources.

Women hold roles of paramount importance within their Indigenous communities and cultures. They are the keepers of ancestral traditions, stewards of the land and natural resources, defenders of human rights, and pivotal caretakers of their families and communities.⁷³ Indigenous women's critical and invaluable relationships with the natural world place them in instrumental positions to lead from climate-conscious, environmentally-aware, culturally-rooted spaces that give them unique perspectives into climate solutions. Bertha Reyuw, a Pacific Island Woman of the *Yap Community Action Program*, says: "Our ancestors also faced storms, droughts and extreme rains, which threatened important food sources. However, many traditional farming and gardening methods were designed specifically to prevent damage to crops during these events. We would do this by planting crops among trees to reduce sunlight, strong winds, and rain. We also knew which crops could survive longer periods of drought, sun, rain—or even saltwater. And Pacific Islanders had many ways to preserve food in times of abundance."⁷¹

As climate change effects worsen, it is critical to prioritize our relationship with the environment. Integrating Indigenous, multicultural, and culturally-responsive practices, into policies, initiatives, funding opportunities, and solutions are key drivers to addressing climate impacts at all levels. In addition to channeling and advancing culturally relevant sustainability practices, subsistence solutions that are traditionally used by Indigenous peoples are fundamental to revive cultural connections with the Earth and move towards a more sustainable society. During pre-colonial times, Kānaka 'Ōiwi (Native Hawaiians) utilized Indigenous agriculture systems such as *lo'i* (irrigated ponds) and agroforestry systems. These types of place-based practices provided over 1 million metric tons of locally-produced food to Hawai'i residents.¹³⁵ Like many islands, approximately 85% of Hawai'i's food is imported today.¹³⁶ Therefore, present day solutions can draw insightful lessons from the restoration of ancestral and traditional practices that provide avenues to inform sustainable development solutions and close global gaps like hunger and food insecurity.

Mālama 'āina teaches us how we can be mindful, compassionate, and respectful cohabitants with Mother Earth, and is an hallmark of Indigenous knowledge which is carried intergenerationally through matriarchal values.

Climate change not only poses enormous threats to food systems, conservation efforts, and livelihoods, it also threatens Indigenous culture. In Aotearoa, climate change threatens traditional Māori practices that are central to their well-being and identity. The loss of cultural sites and *taonga* (treasured species), in addition to the significant changes in *tohu* (environmental indicators), identify deterrances in the transfer of knowledge to forthcoming generations.¹³⁷ Similarly, for Kānaka 'Ōiwi (Native Hawaiians), the detachment from traditional lands has a negative effect on the spiritual and mental health of the people.

Climate change has already contributed to the decimation of 1.5 million acres of native forest, by 2050 98% of coral reefs will be affected by ocean acidification and bleaching events, and it is estimated that 550 Hawaiian cultural sites will be exposed to chronic flooding with sea level rise.¹³⁸ In Fiji, climate change, pollution, and biodiversity loss are threatening traditional fishing grounds. Here, women in the region of Korolevu are taking the lead in coastal and marine conservation efforts with their daughters.^E

By prioritizing culturally-responsive strategies into the design of solutions, valuable Indigenous knowledge and culture can be revitalized for generations to come. By integrating Indigenous knowledge and traditional practices into the solutions and frameworks of climate adaptation strategies, sustainable development, and conservation efforts, we can begin to restore our connections to the environment and heal our Earth. Like first peoples have done for generations, catalyzing socio-cultural shifts that sustain healthy, harmonious, and reciprocal relationships between humans and the environment should be the pathway that leads climate justice forward.

Implementing intergenerational approaches and Indigenous knowledge within climate mitigation, adaptation, and resiliency measures are effective for the long-term shifts. Interdependent ecosystems like those of genealogy, ecology, and culture, shift the rhetoric around conservation and environmental responsibility away from the self, and individualism. Multicultural and intergenerational approaches opportunistically diverse perspectives, creative solutions, and deeper levels of understanding and connection—ultimately transforming meaningful action and deep change. Utilizing intergenerational approaches and Indigenous knowledge upholds the birthplaces of peace, reverence, and solidarity; all of which are components that are much needed to move the needle for an equitable, diverse, and thriving society.

Indigenous women's critical and invaluable relationships with the natural world place them in instrumental positions to lead from climate-conscious, environmentally-aware, culturally-rooted spaces that give them unique perspectives into climate solutions.

RESEARCH GAPS & LIMITATIONS

Throughout the research process, significant gaps were identified while reviewing sources, these included: Gender dimensions, data availability, diversity, implementation, author positionality, and methodological frameworks from holistic and intersectional worldviews.

The dimensions of gender needs to be explored more deeply to include disaggregated data for climate change impacts on non-binary, gender non-conforming, transgender, and LGBTQ+ communities. Systemic discrimination toward gender non-conforming groups is more likely to contribute to significant climate-induced disparities, and is represented in the lack of research currently being conducted. The overall scarcity of available data indicates missed opportunities to directly target and respond to areas of disproportionate impacts on these groups. Funding gaps to conduct this type of research was also observed. New areas of research need to be funded, supported, and published from gender-diverse perspectives and be responsive to the spectrum of gender and sexuality. Additional scholarship in this area could inform policy and programming for more effective climate crisis risk and response.

There is a high prevalence of programs and organizations that are predominately white-led and North American or European based in their theory of change and objectives. This may be indicative of the primary use of English-focused resources. The research reviewed existing programs, movements, and campaigns that were highly attuned to national and global levels. This is a data point in the review process that indicates that a majority of programs and organizations exist within wealthy nations in the Global North. This signifies there is a lack of program availability and resourcing to support collective action and campaigns in the Global South. Program and policy scarcity that is unable to directly channel certain ethnic, racial, and Indigenous groups increase the risk of climate impacts that will widen global gaps of inequity.

This white paper explored existing climate-learning cohorts within the continental U.S. What was found was restricted to expert-level professionals or those who are already leaders in their fields, many with advanced and professional credentials with access to networks of their own. A lack of opportunities and approaches for individuals to participate through collaborative climate-related spheres of influence is clear.

These gaps indicate the need for inclusive participatory approaches where limitations are acknowledged and action can be taken. Aiming to increase the agency, understanding, and engagement of women, gender-diverse, BIPOC, and frontline communities—especially within the Pacific-Asia Region—and in under-resourced locations will better center the effects of climate change through lived experiences.

These are large areas that are lacking data and implementation from research findings through community-based participatory research design. Altogether, the research conducted for this white paper was extensive, and an abundance of resources were reviewed to capture the entirety of this topic.

More research needs to be conducted in the context of climate change, especially at the nexus of the following focal areas:

- Maternal well-being and maternal activism;
- Women's empowerment and sustaining women's representation;
- Ancestral and traditional knowledge;
- Culturally-responsive and place-based practices;
- Well-being and mental health,
- Environmental peacebuilding; and
- Disaggregated data for minority and underrepresented groups, including small Pacific Island Countries, and Indigenous, BIPOC, gender-diverse, LGBTQ+ populations.

IMPLICATIONS & SOLUTIONS

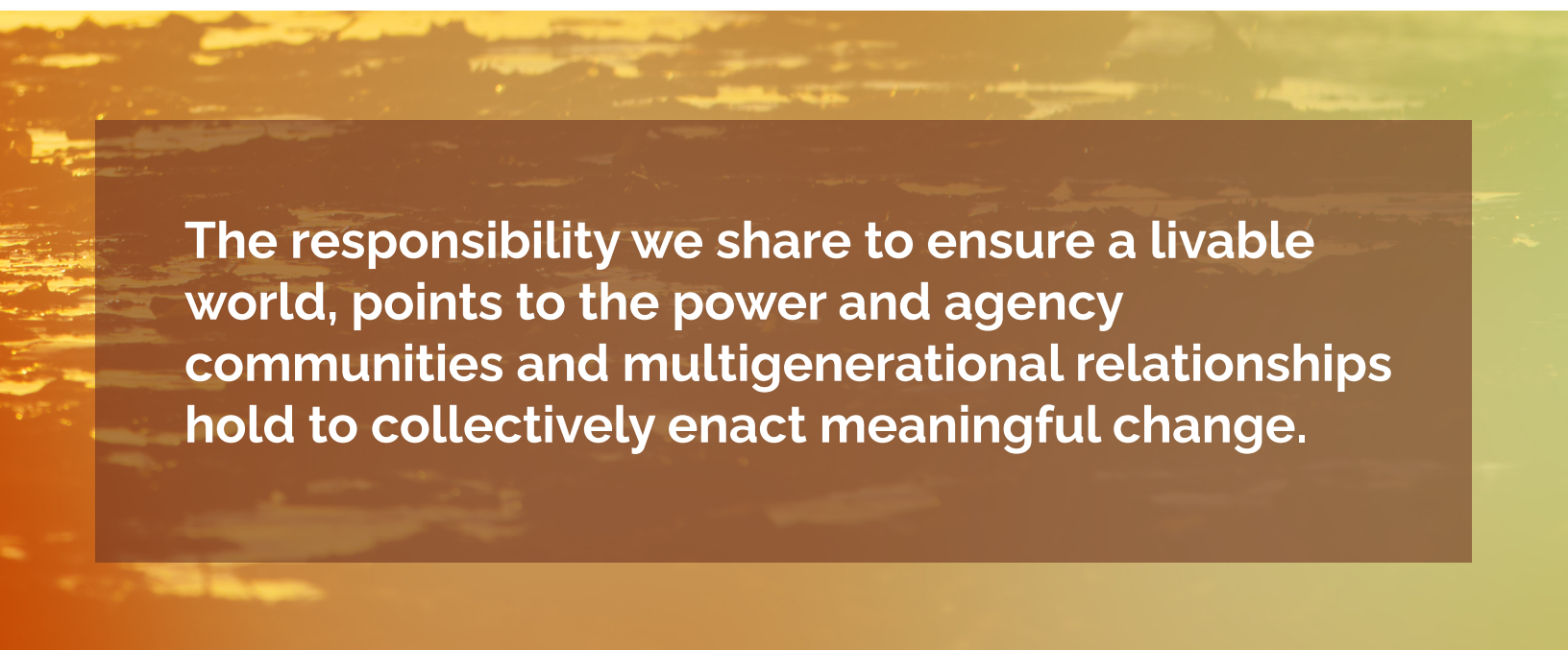
As a non-profit founded by and operated by Indigenous and Pacific Island women, mothers, and caregivers, ICP is organizing solutions led by women, mothers, and their children through our programs, research, network leadership, and policy transformation. Therefore, our own unique operational and governance focus knows the importance of this topic intimately. The climate crisis signifies the urgency to work across sectors to recognize and respond to a multitude of intersectional implications. This research identifies the overwhelming need for community-based, capacity-building, wellness-centered programs, policies, and solutions. It highlights 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.

This research upholds the saliency of operating from a gender-responsive, feminist lens. It indicates the significance of equitable, inclusive, and diverse representation. Women and gender-diverse peoples—who have long been oppressed—are needed in positions of leadership and included in the decision draftings that are affecting them most. As we work to enhance the visibility and action towards global inequalities and disparities, systems and solutions need to explicitly represent the voices, needs, and interests of all members of society.

The responsibility we share to ensure a livable world, points to the power and agency communities and multigenerational relationships hold to collectively enact meaningful change. The climate crisis is pulling people together to act across generations, fields of expertise, and ideologies. Creating opportunities to improve the ways we understand, perceive, interact, and work together, and re-envisioning the weight of the crisis, is important to effect purposeful advancements to address climate change. The relationships we hold throughout our lifetimes within generations, communities, families, peer-networks, movements, and causes, carry profound influence to empower social cohesion, advance action and change, and create peaceful societies.

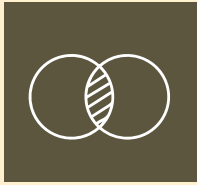
This research further emphasizes the significance of enhancing our relationship with the environment. Spotlighting the long-held environmental reverence and stewardship models Indigenous peoples hold; taking care of the environment is second nature, and the health of the land equates to the health of the people. Cultural preservation, wellness, cooperation, diversity, understanding and compassion, relationship building, and positive peace are integral aspects of the climate movement, and necessary components to creating peaceful and just societies.

Creating programs and spaces that center these intersectional attributes promotes efficiency in the ways we respond to the climate crisis, especially for those most affected. Broadening the opportunities and entry points would further catalyze the agency of women, mothers, frontline, BIPOC, gender-diverse, and Indigenous communities. Overall, these types of solutions uplift the inherent wisdom, power, ingenuity, and voices of communities led by women, mothers, and their children, and effectively sustain their roles to be cornerstones for change.



The responsibility we share to ensure a livable world, points to the power and agency communities and multigenerational relationships hold to collectively enact meaningful change.

**Implement an
intersectional &
inclusive lens**



**Engage frontline
communities
& groups**



**Advance gender
equality**



**Channel maternal
activism**



KEY RECOMMENDATIONS



**Cultivate
positive peace**



**Foster
community
-grounded
solutions**



**Apply
Indigenous
knowledge and
multicultural
perspectives**



**Prioritize mental
health and
well-being**



**Work
Intergenerationally**



**Facilitate
multilateral
dialogue**

CONCLUSION

The climate crisis is compelling us to look deeper and across sectors, locally and globally, and within ourselves and to the people we care for. To shift the trajectory of a world that is fearful and overwhelming, to one that is hopeful and just, requires efforts across generations, sectors, cultures, genders, communities, groups, and regions.

The intersectional experiences of discrimination and disparity that overlap gender, race, ethnic and cultural background, age, sexuality, socioeconomic standing, geographic location, and migration status, point to the unmistakable fractures present in current systems. The needs and interests of women, girls, youth, non-binary and gender non-conforming individuals, BIPOC and LGBTQ+ communities, economically oppressed groups, and the environment, are considerably erased in current patriarchal and colonial systems.

We are ready for inclusive systems that equally represent our society. By centering those who are at the forefront of this crisis, and who are experiencing the effects of climate change the hardest, we can address the systemic inequities at the root of causal factors. Radical shifts are needed for planetary health, wellness, and environmental reverence to be better ingrained in the way we live and exist. Furthermore, the way we view women, girls, gender-diverse, LGBTQ+ and BIPOC participation requires a just transition. The ramifications of climate change represent an urgent need to uplift holistic and intersectional approaches that encourage positive peace and inclusive representation.

Women, mothers, global youth, frontline communities, Indigenous peoples, gender-diverse individuals, LGBTQ+ communities, BIPOC groups, and under-resourced populations are uniquely positioned to understand the problems and solutions that are needed to advance and inform climate action, sustainable development, peaceful societies, and equitable governance. We must create and sustain spaces that allow them to do so. Energizing grassroots organizations, community-grounded approaches, women-led efforts, maternal activism, intergenerational relationships, multilateral dialogue, culturally responsive practices, and those at the frontlines of this crisis is imperative to ensure that the futures we are walking into are intentionally just, inclusive, sustainable, and peaceful.

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THE INSTITUTE FOR CLIMATE AND PEACE

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

ICP is a climate justice organization that understands the data 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 well-being 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.

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>

SUGGESTED CITATION

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