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WOMEN, CULTURAL RIGHTS, AND CLIMATE CHANGE Challenges and Opportunities in Response to the Global Crisis

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I. Introduction

The United Nations calls climate change the "defining issue of our time." Climate change is not just an environmental issue, but also a security, economic development, and human rights issue. Across the globe, climate change is causing losses of cultural assets, destruction of places where people live and practice their culture, and losses of sites of significance. Because culture informs how societies view the natural environment, culture influences how societies respond to climate change. While cultural practices such as means of production, consumption, and lifestyle, can exacerbate climate change, culture can also be a driving force for adapting and responding to the global crisis.

Cultural rights can be "understood as [human] rights in the field of culture." These include rights of expression and creation, art, information and communication, language, identity, place, shared values, education, cultural heritage and institutions and ways of life. The impact of climate change on cultural heritage is a recognized human rights issue. But cultural rights are meaningless without an environment in which to enjoy them. Thus, continued access and enjoyment of cultural rights requires an informed and effective response to climate change.

For women, the issue is all the more critical. Cultural norms already limit women's access to and enjoyment of their cultural rights, and climate change can worsen these inequities. While women are thus among the most vulnerable to climate change, they are often also the first responders in their communities, working to protect their communities, traditions and ways of life from the negative effects of climate change. For this reason, women can be catalysts for climate change activism and response in their communities.

This paper explores the intersection of women, cultural rights, and climate change. In particular, this paper discusses how climate change impacts women, and provides examples of that impact on cultural rights. This paper also addresses both the negative and positive aspects of climate change on culture, as culture is both a contributing factor to, and a positive force for adaptation in response to climate change. Notably, because women play a key role in preserving cultural rights, they can also create culture anew, driving new ways of life to adapt and respond to the global climate crisis.

¹ United Nations, Climate Change (last visited April 14, 2020) https://www.un.org/en/sections/issues-depth/climate-change/.

² MAYESHA ALAM, RUKMANI BHATIA, BRIANA MAWBY, WOMEN AND CLIMATE CHANGE, IMPACT AND AGENCY IN HUMAN RIGHTS, SECURITY, AND ECONOMIC DEVELOPMENT (Georgetown Institute for Women, Peace and Security 2015) p. 11.

³ W. Neil Adger et. al., *Cultural Dimensions of Climate Change Impacts and Adaptation*, NATURE CLIMATE CHANGE, Vol. 3, February 2013, at 112-117, 113.

⁴ *Id*.

⁵ *Id.* at 112.

⁶ United Nations General Assembly, Report of the independent expert in the field of cultural rights, Ms. Farida Shaheed, submitted pursuant to resolution 10/23 of the Human Rights Council, p. 4 (March 22, 2010).

⁷ United Nations OHCHR, International Standards (last visited April 14, 2020) https://www.ohchr.org/EN/Issues/CulturalRights/Pages/InternationalStandards.aspx.

II. Women and Climate Change

While climate change affects all people, it does not affect men and women equally. This is due to a variety of factors including biological and physical determinants such as age, genetics, ability, and place of living, as well as cultural and societal norms or customs, such as discrepancies in education levels, socio-economic status and gendered roles in society.

Gender equality usually refers to rights, opportunities, values, outcomes and agency. ⁸ Gender inequalities are reflected in the limited control that women and girls have over their lives, especially when it comes to personal autonomy, or control over access to resources such as food, water, land, energy, technology, education, health, housing and employment—all of which are impacted by climate change. ⁹

Climate change includes both rapid-onset events and slow-onset processes that affect survival over time. These processes are interrelated and together create cycles of special vulnerability for women. ¹⁰ Gender is a primary indicator of vulnerability during and after climate crises and events. ¹¹ In regard to climate variability and climate catastrophes, evidence shows that disaster experiences are gendered, and women are more vulnerable than men during and after climate events. ¹² Vulnerability to biodiversity loss, desertification and climate change is closely linked to gender, and thus any effective response to climate change must consider gender issues.

Yet women are not just a vulnerable population; they are also change agents for combating the crisis. Even taking into account economic status, women have smaller carbon footprints than men due to consumption patterns and lifestyle choices. Women "hold critical local knowledge that can enhance climate adaptations and assist the development of new technologies to address climate variability in areas related to energy, water, food security, agriculture and fisheries, biodiversity services, health, and disaster risk management." However, the ability of women to contribute to climate change mitigation and adaptation is too often hindered by gender inequality and gendered power dynamics.

Climate change impacts women in several key ways. These include economic instability, caretaking responsibilities, water and resource scarcity, and health and safety. Addressing these

⁹ United Nations, Convention on the Elimination of All Forms of Discrimination Against Women (March 13, 2018).

⁸ United Nations Development Programme, Gender, Climate Change and Community-Based Adaptation, A Guidebook for Designing and Implementing Gender-Sensitive Community-based Adaptation Programmes and Projects (July 2010).

¹⁰ MAYESHA ALAM, RUKMANI BHATIA, BRIANA MAWBY, WOMEN AND CLIMATE CHANGE, IMPACT AND AGENCY IN HUMAN RIGHTS, SECURITY, AND ECONOMIC DEVELOPMENT (Georgetown Institute for Women, Peace and Security 2015) p. 19.

¹¹ Margaret Alston, *Gender Mainstreaming and Climate Change*, Women's Studies International Forum 47, at 288 (2014). ¹² *Id* at 287.

¹³ International Labour Organization, Green Jobs: Improving the Climate for Gender Equality Too!, at p. 5 (January 2009).

¹⁴ Margaret Alston, Gender Mainstreaming and Climate Change, Women's Studies International Forum 47, at 289 (2014).

issues requires an understanding of international law and policy at the intersection of gender and climate change.

A. **Economic Stability**

Gender, economic stability, and climate change are closely related. Globally, the gender wage gap will take 257 years to close at its current rate of change; only fifty-five percent of women are engaged in the labor market compared to seventy-eight percent of men, women are still not allowed to open bank accounts or obtain credit in seventy-two countries and there is no country in the world where men spend the same amount of time on unpaid labor as women.¹⁵

Climate change causes severe weather patterns and greatly increases the destructive capabilities of natural disasters. In economic crises due to climate disasters, women are often the first to lose jobs and sources of income due to patriarchal socio-economic structures that consider women as secondary income earners. ¹⁶ Additionally, after climate change related disasters, men will often emigrate to look for sources of income, leaving women with the process of rebuilding communities and supporting their families.¹⁷

Climate change also affects the types of economic opportunities available to women across all sectors. Economic dependence on traditional food systems is an example of a threatened industry. For instance, the Mäori, the indigenous Polynesian people of New Zealand, depend economically on climate-sensitive industries. ¹⁸ This means that due to their identities as women and Mäori, Mäori women are more likely to experience negative economic effects from climate change. Women who work in energy will also be greatly impacted as global economies shift toward sustainable energy systems. The tourism industry will also be affected; as sea levels rise and extreme weather events become more common, many regions will suffer biodiversity loss, and tourists will adjust accordingly. Since tourism supports many women's livelihoods, especially in the Global South, decreased tourism will result in losses of economic opportunity. 19

When climate change impacts primary sources of income, such as farming, rural women often have to seek additional work or perform unpaid labor to make ends meet. Women may take up the labor of laid-off farm hands without pay, or seek sources of income outside the farm to support themselves and their families when the farm is no longer able to provide stable income.

¹⁵ Mind the 100 Year Gap, WORLD ECONOMIC FORUM (December 16, 2019), https://www.weforum.org/reports/gender-gap-2020report-100-years-pay-equality.

¹⁶ Md. Sadequr Rahman, Climate Change, Disaster and Gender Vulnerability: A Study on Two Divisions of Bangladesh, 2 AMERICAN JOURNAL OF HUMAN ECOLOGY 72, No. 2, 80 (2013).

17 Y. Carvajal-Escobar, M. Quintero-Angel, and M. García-Vargas, *Women's role in adapting to climate change and variability*,

ADVANCES IN GEOSCIENCES, 277-280 (2008).

¹⁸ Rhys Jones, Hayley Bennett, Gay Keating and Alison Blaiklock, Climate Change and the Right to Health for Mäori in Aotearoa/NewZealand, 16 Health and Human Rights 1, 54, 56 (June 2014).

¹⁹ Gender CC, Tourism, Gender and Climate Change (last visited April 14, 2020), https://gendercc.net/genderclimate/tourism.html.

For years, Mallee women in rural Australia have keenly felt the impact of an increasing number of droughts due to gendered economic roles. Because the farmer in Australia is identified as male, Mallee women who took up farming were described during hard economic times due to drought as being an "unrecognisable workforce." Thus, while outside sources of income may increase women's independence, they can also simultaneously increase their labor, as women are often expected to maintain traditional roles of family caretakers while also being breadwinners.

Because climate change threatens diverse economic sectors, many states and international organizations seek creative ways to finance their adaptation. To ensure that these plans account for gender issues, the United Nations Development Program has made several recommendations for ensuring gender equity in climate change financing. These include performing gender assessments to determine how economic climate policies incentivize individuals, advocating for strong women's property rights, establishing gender-based criteria in fund allocation, ensuring women's effective and balanced participation in decision making, mainstreaming gender in climate change responses, equalizing care burdens, and ensuring that information and analysis accounts for gender differences.²¹

Caretaking Responsibilities В.

Women, more often than men, are responsible for caring for the family unit, whether that is minding children, caring for the elderly and sick, or performing household labor such as cleaning and cooking. These gender-based roles result in women, more often than not, becoming the primary caretakers after climate change related natural disaster.²² This may mean everything from physically rebuilding homes to caring for the displaced or injured to finding food and clean drinking water.

Women's increased caretaking responsibilities puts them at greater risk from climate disasters. For example, during the 2004 tsunami in Indonesia, four times as many women died as men, in part because women spent more time attempting to save children.²³ Climate change also increases the prevalence of disease, and because women tend to spend more time caring for sick family and community members, they are at greater risk.²⁴ Similarly, women who are the primary care-givers may be less likely to migrate for better economic opportunity in the face of climate-related poverty.²⁵

²⁰ Deb Anderson, Climate Lived and Contested: Narratives of Mallee Women, Drought and Climate Change, Hecate, Vo. 38, 2021, 24-41, 32. ²¹ UNDP, *Ensuring Gender Equity in Climate Change Financing*, New York, 2011, p. 4-6.

²² Md. Sadequr Rahman, Climate Change, Disaster and Gender Vulnerability: A Study on Two Divisions of Bangladesh, American Journal of Human Ecology, Vol.2, No. 2, 2013, 72-82, 75.

Adelle Thomas, *Power structures over gender make women more vulnerable to climate change*, Climate Home News,

^{08/03/2020,} https://www.climatechangenews.com/2020/03/08/power-structures-gender-make-women-vulnerable-climate-

change/.
²⁴ UN Women Watch, Fact Sheet: Women, Gender Equality and Climate Change, 2009, http://www.un.org/womenwatch/feature/climate_change/. ²⁵ *Id.*

However, as caregivers, women are also in a unique position for responding to climate change. Studies show that when women take on leadership roles in early warning systems and reconstruction after natural disasters, communities fare better; this is because women are more likely to (i) share information related to community well-being, (ii) choose environmentally friendly energy sources, and (iii) adapt more easily to environmental changes for the benefit of their families. Further, women are taking on leadership roles to care for their communities when men migrate away from the community. For example, women in Sudan are becoming farmers, land managers, and conflict managers as men have left to search for jobs in cities. ²⁷

C. Water and Resource Scarcity

Some of the most visible current effects of climate change are water and resource scarcity. Water scarcity includes droughts as well as the inability to access potable water. Resource scarcity includes everything from food shortages to a lack of energy. Water and resource scarcity affect women in many specific ways.

Women experience "time poverty." Women's work in and outside the home increases with climate change, as it becomes more difficult to secure water, food and fuel for cooking and heating. As a result, women's participation in the cultural life of the community decreases, they are unable to pursue other economic opportunities, and/or experience disruptions in education.

Indigenous women face resource scarcity of traditional foods and medicines. For example, the bark of the Pacific Yew is used for healing in the Pacific Northwest, but the development of an anticancer drug using the same bark has led to illegal overharvesting, and climate change will make it more difficult for the yew trees to recover. This medicinal plant, which is useful for addressing climate change impacts on health, is now at risk of overharvesting and being used "against cultural traditions."

Women are taking water and resource adaptation seriously. Around the world, women have found ways to work together to build stronger resource conservation management programs while at the same time building new cultural practices. For example, women in Central America have planted 400,000 nut trees in order to secure food sources and decrease carbon in the atmosphere.³⁰ In the process, they have engaged in a collective action that brings agency and power to their communities.

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²⁶ UNDP, Overview of linkages between gender and climate change, Asia-Pacific Human Development Report, 2011, p. 4.

²⁷ UN Environment Programme, *Empowering women on the frontlines of climate change* (last visited March 8, 2020) https://www.unenvironment.org/news-and-stories/story/empowering-women-frontlines-climate-change.

²⁸ WECAN, *Unleashing the Power of Women in Climate Solutions* (last visited April 4, 2020) https://www.wecaninternational.org/why-women.

²⁹ Terry Williams, Preston Hardison, *Culture, law, risk and governance: contexts of traditional knowledge in climate change adaptation*, Climatic Change, 9 January 2013, 531-544, p. 539.

³⁰ Convention on Biological Diversity, *The Rio Conventions: Action on Gender*, Montreal, 2012, p. 11.

D. **Health and Climate**

The impacts on health from climate change include increased exposure to heat, poor air quality, extreme weather events, altered/increased disease transmission, reduced water quality and decreased food security. 31 These impacts affect men and women differently, and the severity of impact tends to depend on local, geographic, and socioeconomic factors.³²

Examples of health related complications women face due to climate change include: higher rates of anemia and malnutrition due to climate-driven food insecurity, respiratory and cardiovascular disease from exposure to poor air quality, increased mortality and decreased life expectancy from climate related disasters, higher risks of physical, sexual and domestic violence after climate related disasters, limited access to obstetric care, as well as mental health risks that come from coping with climate change or its consequences, such as forced migration and repeated short distance moves.³³ These examples of climate-related impacts on women's health are reflected in mortality statistics; elderly women in Europe died at a higher rate than elderly men during the European heat wave in 2003; deaths of women outnumbered those of men during the 2004 tsunami; and more women died than men during the 1991 and 2007 cyclones in Bangladesh. 34 Women also face post-climate disaster stress symptoms. 35

Women are often more vulnerable than men to increased extreme weather induced by climate change because of poverty, social norms, and more generally, their marginal position in society.³⁶ Based on a study of events in 2007, women were found to be 14 times more vulnerable than men to casualties during and post disaster.³⁷ This vulnerability stems from a multitude of complex and interwoven factors. In Bangladesh, for example, those factors included: lack of the ability to swim, restricted mobility due to clothing, limited access to information such as warning systems, poor infrastructure leading to building collapse, and gender based and culturally assigned roles coupled with patriarchal social norms that prevented women from making decisions or taking actions that would save their lives.³⁸

Climate change is a threat to public health. ³⁹ For example, the Mäori consider health to be spiritual, intellectual, physical, social and emotional in relation to the natural environment. 40

³¹ Sorensen C. Murray V. Lemery J. Balbus J (2018) Climate change and women's health: Impacts and policy directions. PLoS Med 15(7): e1002603. https://doi.org/10.1371/journal.pmed.1002603. ³² *Id.* at 1.

³³ *Id.* at 2.

³⁴ Md. Sadequr Rahman, Climate Change, Disaster and Gender Vulnerability: A Study on Two Divisions of Bangladesh, American Journal of Human Ecology, Vol.2, No. 2, 2013, 72-82, 72.

³⁵ Id. at 75.

³⁶ *Id.* at 73.

³⁷ *Id.* at 76.

³⁸ *Id*.

³⁹ Rhvs Jones, Hayley Bennett, Gay Keating and Alison Blaiklock, *Climate Change and the Right to Health for Mäori in* Aotearoa/NewZealand, Health and Human Rights, Vol. 16, No. 1, Climate Justice and the Right to Health (June 2014), 54-68, 55. 40 Id.

Thus environmental degradation can lead to negative consequences on spiritual and emotional health as well. Environmental impacts on health are not just related to climate disasters, but also the everyday activities of women around the world. For example, indoor exposure to air pollution, especially in developing countries through the burning of biomass fuels for cooking over open fire, leads to two million excess deaths, primarily of women and children from respiratory and lung diseases. ⁴¹ The use of different energy resources that are environmentally friendly would reduce greenhouse gas emission and provide safer energy systems for women.

Further, climate change can burden women by tethering them to practices that affect their health and wellbeing. In rural India and Africa, thirty percent or more of a woman's daily energy is spent collecting water during the dry season. ⁴² Due to the unique nutritional needs of women, including those when pregnant or breastfeeding, women are also more prone to nutritional deficiencies. This can be exacerbated by cultural food hierarchies that partition food in unequal ways due to gender and/or age. ⁴³

E. Safety and Security

Climate change greatly increases the safety and security risks to women and girls. Safety and security concerns arise in almost all contexts of women's lives, but become even more pressing after climate related disasters. Such disasters increase women's need to travel to obtain a livelihood for themselves and their families, limit their access to health care, result in their displacement and increase militarization, which further restricts their activities. In addition, because climate change and climate-related disasters disrupt local security nets, women are left more vulnerable to gender-based violence, including sexual harassment and violence, domestic violence, early and forced marriage and human trafficking. 44 45

Women's safety while in transit intersects with climate change, gender and cultural rights. Many women must travel longer distances due to climate change for work or while collecting resources such as water and fuel. However, cultural restrictions on the mobility of women can limit their access to methods of transportation, particularly environmentally friendly methods of transportation such as cycling. Women are also more likely to make more, shorter distanced trips and would benefit from planning of pedestrian and mass transit routes (which have lower environmental impact) rather than highways and freeways, which men typically use more and that have a greater negative environmental impact. Women who are displaced due to climate change also face security and safety threats while migrating. These can include lack of

⁴⁴ Deliver for Good, *Policy Brief: Invest in Girls and Women to Tackle Climate Change and Conserve the Environment* (last visited April 14, 2020) https://womendeliver.org/investment/invest-women-tackle-climate-change-conserve-environment/.

⁴¹ Convention on Biological Diversity, *The Rio Conventions, Action on Gender*, Montreal, 2012, p. 10.

⁴² World Health Organization, *Gender, Climate Change and Health*, Geneva, 2014, p. 15.

⁴³ *Id.* at 17.

⁴⁵ UNEP, Women at the Frontline of Climate Change, Gender Risks and Hopes, Norway, 2011, p. 7.

⁴⁶ World Health Organization, Gender, Climate Change and Health, Geneva, 2014, p. 23.

food and shelter, harassment from state actors or traffickers, and gender-based violence. These issues are not isolated but intersect with other areas of life including health, socio-economic status and societal norms.

Increasing access to voluntary family planning, including providing contraception, is one effective method of reducing the negative impacts of climate change. When women have the ability and agency to decide how and when to have children, they are less likely to experience the negative effects of climate change. For example, family planning can mean less population stressors on fragile environments, fewer mouths to feed in times of climate related drought, and more time to complete education and participate in the community outside of immediate family structures. Climate disasters also impede women's access to health care services, including maternal and abortion care services. Yet, access to safe family planning, including contraception, is an effective method of reducing stress on the environment through population management, while also improving the safety and security of women around the world by giving them agency and control over their bodies.

Militarization of environmental issues also causes gender-based problems. Some countries are turning to the military or private security forces to protect wildlife or forests. Rape of women around wildlife conservation areas is linked to the militarization of the security force in Tanzania. This is an example of how gender perspectives are necessary when planning for ecosystem management in response to climate change.

Women also face severe threats to their safety and security, both physically and legally, when assuming activist roles against actors that contribute to climate change, including corporations, governments and groups. Women in Latin America and the Philippines are especially at risk when assuming activist roles. ⁴⁹ For example, in Honduras, Berta Cáceres, was murdered in 2016 for her role in protesting a dam that threatened sacred Lenca land. ⁵⁰ In the United States, activist Red Fawn Falls was sentenced to 57 months in prison after a raid on her camp while she was protesting the Dakota Access pipeline. ⁵¹ In South Africa, Nonhle Mbuthuma was forced to go into hiding after protesting the construction of a titanium mine on Xolobeni ancestral land. ⁵² And UN Special Rapporteur for Indigenous Peoples, Vicky Tauli-Corpuz was placed on a terrorist watch list by the government in the Philippines after speaking out against human rights violations of environmental activists. ⁵³ These are a few examples of the countless

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⁴⁷ Deliver for Good, *Policy Brief: Invest in Girls and Women to Tackle Climate Change and Conserve the Environment* (last visited April 14, 2020) https://womendeliver.org/investment/invest-women-tackle-climate-change-conserve-environment/. ⁴⁸ Nicole Detraz, *Environmental Security and Gender: Necessary Shifts in an Evolving Debate*, Security Studies, 2009, Vol. 18,

Nicole Detraz, Environmental Security and Gender: Necessary Shifts in an Evolving Debate, Security Studies, 2009, Vol. 18, 345-369.

49 Global Witness, Enemies of the State? How governments and business silence land and environmental defenders, July 2019.

Global Witness, Enemies of the State? How governments and business silence land and environmental defenders, July 2019. Carolina Herrera, Indigenous Women: Defending the Environment in Latin America, NRDC, 09 August 2017, https://www.nrdc.org/experts/carolina-herrera/indigenous-women-defending-environment-latin-america.

⁵¹ Global Witness, Enemies of the State? How governments and business silence land and environmental defenders, July 2019.

⁵³ Id.

women who were threatened, harassed, fired, beaten, shunned or murdered for speaking out against environmental injustice and climate related threats.

Women's agency in creating safe communities should not be underestimated. While participating to ensure the safety of their communities, women can create new cultural practices in response to climate change. For example, when Hurricane Mitch struck La Masica, Honduras, in 1998, the community was able to evacuate due to early action from warning systems and disaster management plans. Six months prior to Hurricane Mitch, the community received gender-sensitive training on early warnings and women were able to assume the (traditionally male) role of monitoring the early warning system.⁵⁴

F. Climate Policy, Gender Legislation and International Agreements

Fifty-one countries, as well as numerous international organizations such as the United Nations, have committed to gender equality and the empowerment of women and girls when implementing climate actions. Differences in values can cause "discrepancies between adaptations [to climate change] that are deemed rational and effective by governments and planners and those that are considered important to and desirable by individuals and communities." Climate change policy, legislation and international agreements can help to mitigate those discrepancies in adaptation and work to unify a global response to climate change. Including a gendered perspective in these policies, laws and agreements will not only strengthen the frameworks by making them more equitable, but will also help to build a response to climate change that is accessible and inclusive.

Gender mainstreaming is an important part of any political or legislative process responding to climate change. According to the National Adaptation Global Network, a gendered mainstream response includes: (1) the recognition of gender differences in adaptation needs, opportunities and capacities, (2) equitable participation and influence by women and men in adaptation decision making processes, and (3) equitable access to financial resources and other benefits resulting from investments in adaptation between women and men.⁵⁷

1. International Climate Agreements and Gender

International agreements are important for creating laws and setting legal norms, as well as shaping international opinion. For those reasons, including gender in international climate agreements is essential for guaranteeing equality in climate agreements but also accounting for

⁵⁴ World Health Organization, Gender, Climate Change and Health, Geneva, 2014, p. 27.

⁵⁵ Climate Action Summit 2019, Report of the Secretary-General on the 2019 Climate Action Summit and The Way Forward in 2020, (December 11, 2019), p. 29.

⁵⁶ W. Neil Adger et. al., *Cultural Dimensions of Climate Change Impacts and Adaptations*, NATURE CLIMATE CHANGE, Vol. 3, February 2013, 112-117, 114.

⁵⁷ NAP Global Network, Conducting Gender Analysis to Inform National Adaptation Plan (NAP) Processes: Reflections from six African countries, March 2019, p. 3.

gender-based bias. Recent international agreements focusing on climate have included a gender perspective to account for the particular issues women face in responding to climate change.

Over the years, international climate agreements made a serious shift to including a gender perspective. The 1992 UN Framework Convention on Climate Change (UNFCC), the 1997 Kyoto Protocol and the 2007 Bali Action Plan all focus on addressing climate change, although they do not address gender equality. Those agreements were, in theory, supported by agreements such as the Beijing Declaration and Platform for Action, the Convention on the Elimination of All Forms of Discrimination against Women and the Commission on the Status of Women. For example, the Beijing Platform for Action puts the spotlight on women and the environment, recommending actions such as involving women in environmental decision making, integrating gender perspectives in sustainable development programs and establishing mechanisms to assess the impacts of environmental policies on women.

The trend to include gender mainstreaming in international agreements is important because it provides a legal link between women and climate change. The UNFCC recognized the link between gender and the environment in 2014 with the Enhanced Lima Work Program on Gender. This program "recognizes that the full, meaningful and equal participation and leadership of women in all aspects of the UNFCCC process and in national - and local - level climate policy and action is vital for achieving long-term climate goals." The Sustainable Development Goals prioritize gender equality as well as climate action with SDG 5 Gender Equality and SDG 13 Climate Action. And the Paris Climate Agreement includes provisions that ask states to promote gender equality and women's empowerment when acting to address climate change.

2. National Action Plans and Tribal Legal Instruments

National governments and governing systems are responding to climate change in many ways. While 195 countries signed on to the global Paris Agreement in 2015, many of these nations have implemented their own plans to move their country forward in response and in addition to the international agreements.

⁵⁸ UN Women Watch, *Fact Sheet: Women, Gender Equality and Climate Change*, 2009, http://www.un.org/womenwatch/feature/climate_change/.

⁶⁰ United Nations, *Beijing Declaration and Platform for Action, adopted at the Fourth World Conference on Women*, 27 October 1995.

⁶¹ United Nations Framework Convention on Climate Change, *Enhanced Lima Work Programme on Gender and Its Gender Action Plan* (last visited April 4, 2020) https://unfccc.int/topics/gender/workstreams/the-enhanced-lima-work-programme-ongender.

⁶² UN Sustainable Development Goals, *Knowledge Platform* (last visited April 14, 2020) https://sustainabledevelopment.un.org/?menu=1300.

Garage Mations, Paris Agreement, 2015 (last visited April 14, 2020) https://unfccc.int/files/essential background/convention/application/pdf/english paris agreement.pdf.

Nations can address climate change at national and local levels, while preparing for the changes to economies, communities and the environment through national action plans. Such plans present the opportunity for gender mainstreaming to maximize the inclusion of the benefits to all. Haiti, Nepal and Tanzania have developed climate change gender action plans. Haiti held a national stakeholders' workshop on climate change with women representatives at the forefront of discussions. Nepal created an action plan that included the creation of women led seed banks to combat climate change threats to agriculture. And in Tanzania, women are working to gain land rights that would allow them more control over environmental planning techniques.

Tribal and indigenous governing bodies are also responding to climate change and indigenous people have been on the frontlines of climate change for years. Tribal legal instruments include the Declaration on the Rights of Indigenous Peoples, Convention on Biological Diversity and the Nagoya Protocol. States also have policies that include tribal rights to "protect tribal cultural heritage and cultural identity expressed in both tangible and intangible forms." In terms of tribal agreements and legal instruments, many tribes have turned to the court system to enforce treaty agreements with federal governments in efforts to respond to climate change. For example, in the United States, the Inuit Circumpolar Conference filed a complaint to the Inter American Commission on Human Rights against the United States for the U.S.'s levels of greenhouse gas emissions. And the Yakama Nation, the Confederated Tribes of Umatilla Indian Reservation and the Nez Perce Tribe brought two cases against the Millennium Bulk Coal and Coyote Island Terminal for the impact of coal mining on salmon and fishing rights. Thus, tribal treaties and agreements can be a legal mechanism to enforce policies to protect against climate change.

3. Women Climate Refugees

Women climate refugees can face seemingly insurmountable challenges as they migrate, immigrate and move to escape the negative impacts of climate change. Women climate refugees leave their homes due to loss of land, livelihood or safety stemming from climate change. They face challenges such as lack of recognition, safety threats on their journeys, socio-economic uncertainty at their destination and a lack of legal rights. With the majority of displaced persons being women and children, and women making up eighty percent of climate refugees, the recognition of women climate refugees will be essential to supporting these displaced persons.⁶⁸

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⁶⁴ MAYESHA ALAM, RUKMANI BHATIA, BRIANA MAWBY, WOMEN AND CLIMATE CHANGE, IMPACT AND AGENCY IN HUMAN RIGHTS, SECURITY, AND ECONOMIC DEVELOPMENT (Georgetown Institute for Women, Peace and Security 2015) p. 49.

⁶⁵ Terry Williams, Preston Hardison, *Culture, law, risk and governance: contexts of traditional knowledge in climate change adaptation*, CLIMATE CHANGE, 9 January 2013, 531-544, p. 540.

⁶⁶ Anna V. Smith, *How do tribal nations' treaties figure into climate change?*, High Country News, 14 May 2019, https://www.hcn.org/articles/tribal-affairs-how-do-tribal-nations-treaties-figure-into-climate-change.

⁶⁸ Jessica Olson, *Women on the Front Lines of Change: Empowerment in the Face of Climate and Displacement*, New Security Beat, 28 February 2018, https://www.newsecuritybeat.org/2018/02/women-front-lines-change-empowerment-face-climate-displacement/. See also, WECAN, *Unleashing the Power of Women in Climate Solutions* (last visited April 14, 2020) https://www.wecaninternational.org/why-women.

Women climate refugees need assistance, yet there is uncertainty as to what the term "climate refugee" means, who counts as a climate refugee, and a general lack of awareness that climate refugees exist. The term "climate refugee," or "environmental refugee," generally refers to persons that have been displaced or are at risk of displacement due to environmental/climate change. Women in low-lying islands in the Pacific are some of the most vulnerable, but so are women in parts of Asia, Africa and Latin America. Climate refugees are often perceived as migrating internationally. However, international migration is only a small proportion of climate migration; interregional movement is currently more pervasive. Further, climate refugees are often conceptualized as a group of people, with most narratives failing to account for the gendered differences women climate refugees face.

Women climate refugees also lack legal protection. The International Organization for Migration and the Office of the UN High Commissioner for Refugees use the term "environmentally displaced persons" rather than refugees, due to the legal rights of refugees being dependent on circumstances unrelated to climate or the environment. The current international legal order gives minimal legal protections for women climate refugees. Most would be classified as "internally displaced persons" under the UNHCR, yet that status is mostly a descriptive phrase and does not confer obligations on states. The recognition of greater legal rights for climate refugees will increase women's access to aid and resources after being displaced due to climate change.

4. Ecofeminism

Climate policy is often informed and influenced by cultural movements, philosophical principles, and ideological designs. One such movement and philosophy that places gender at the forefront is ecofeminism. Ecofeminism is a cultural movement to connect environmental philosophy with feminism, but it is largely "an umbrella term" for different philosophical perspectives on the connections between gender, race, socioeconomic status, geography, ethnicity and animals, nature and climate change.⁷⁴ Not all women who work for environmental justice will identify as ecofeminists, but cultural movements like ecofeminism are important

⁷² Biermann, Frank & Boas, Ingrid, *Preparing for a Warmer World: Towards a Global Governance System to Protect Climate Refugees*, Global Environmental Politics, 10, (2010) 60-88, 66. See also, UNHCR, *Climate change and disaster displacement*, accessed 4/14/2020, https://www.unhcr.org/en-us/climate-change-and-disasters.html.

⁶⁹ Farbotko, C. & Lazrus, H., *The first climate refugees? Contesting global narratives of climate change in Tuvalu*. Science Direct, GLOBAL ENVIRONMENT CHANGE, Volume 22, Issue 2 (May 2012), 382-390, 387.
⁷⁰ *Id*.

⁷¹ *Id.* at 388.

⁷³ Biermann, Frank & Boas, Ingrid, *Preparing for a Warmer World: Towards a Global Governance System to Protect Climate Refugees*, GLOBAL ENVIRONMENTAL POLITICS, 10, (2010) 60-88, 74.

⁷⁴ STANFORD ENCYCLOPEDIA OF PHILOSOPHY, FEMINIST ENVIRONMENTAL PHILOSOPHY, 27 April 2015, https://plato.stanford.edu/entries/feminism-environmental/.

because women can be driving forces for change, as women tend to show more support for pro-environmental policies and to vote for pro-environmental leaders.⁷⁵

Ecofeminism attempts to understand, eliminate and create alternatives to the oppression of women within the context of climate change and the degradation of the natural world. Ecofeminism identifies parallels between the earth and women, challenges existing power hierarchies in support of equality between sexes and justice for the natural world, and highlights women's unique status as contributors to degradation to, and also as saviors of, the environment. While ecofeminism cannot be directly linked to policy change, as a philosophical and academic cultural movement, it has helped to link ideas of climate change and gender justice that permeate politics and generate activism.

III. Women's Cultural Rights in an Era of Climate Change

Environmental rights are cultural rights. Human rights are not accessible without a safe, clean and healthy environment. Sustainable environmental governance "cannot exist without the establishment of and respect for human rights." Thus, the right to a sustainable environment is intrinsic to the achievement of all human rights, including cultural rights.

Climate change greatly impacts women's access to and enjoyment of their cultural rights. Such access to and enjoyment of those rights also informs how populations are able to adapt and respond to climate change. While structural inequities create unequal impacts of climate change, some women are more severely impacted than others. Indigenous women, women living below the poverty line, women with disabilities, women in agricultural and fishing communities, women in low-lying nations, and young women and girls are some of the most severely impacted by the unfolding crisis.

While cultural rights are impacted by climate change, culture can be an essential tool for encouraging climate focused engagement. Culture, including politics and social norms, often determines who has a voice concerning climate change adaptation, mitigation, and response, as well as which values count, and what information is considered legitimate. Culture also determines how people respond to adaptation interventions. Adaptation, refers to changes in

⁷⁶ STANFORD ENCYCLOPEDIA OF PHILOSOPHY, FEMINIST ENVIRONMENTAL PHILOSOPHY, 27 April 2015, https://plato.stanford.edu/entries/feminism-environmental/. See also, *Women and Life on Earth, What is Ecofeminism?*, access 04/14/2020, http://www.wloe.org/what-is-ecofeminism.76.0.html.

⁷⁵ UNDP, Overview of linkages between gender and climate change, Asia-Pacific Human Development Report, 2011, p. 1.

⁷⁷ JR Thorpe, *What Exactly is Ecofeminism*?, Bustle, 22 April 2016, https://www.bustle.com/articles/155515-what-exactly-is-ecofeminism.

⁷⁸ UNEP, *What are environmental rights?* (last visited April 14, 2020) https://www.unenvironment.org/explore-topics/environmental-rights-and-governance/what-we-do/advancing-environmental-rights/what.

⁷⁹ Renata Tyszcuk, Joe Smith, *Culture and climate change scenarios: the role and potential of the arts and humanities in responding to the '1.5 degrees target,'* SCIENCE DIRECT, ENVIRONMENTAL SUSTAINABILITY, April 2018, Vol. 31, 56–64, 57. ⁸⁰ W. Neil Adger et. al., *Cultural Dimensions of Climate Change Impacts and Adaptations*, NATURE CLIMATE CHANGE, Vol. 3, February 2013, 112-117, 114-115.

processes, practices, or structures to moderate or offset potential damages or take advantage of opportunities associated with changes in climate and involves adjustment to decrease the vulnerability of communities and regions to the impacts of climate change and variability."⁸¹ While adaptation is potentially harmful to existing cultural structures, it provides an opportunity to build new cultural structures that support effective responses to climate change.

A. Indigenous Women

Indigenous peoples are considered the least responsible for, but yet the most impacted by, climate change. ⁸² Indigenous women are among the most affected by the negative impacts of climate change due to their close relationship with nature, which comes from traditional practices and social structures. ⁸³ For indigenous women, "the loss of identity due to displacement and dispossession of lands, resources, and waters (likely to occur with climate change) is intimately linked to adverse physical and mental health outcomes." ⁸⁴ For indigenous women, climate change, gender and culture intersect in the application of traditional knowledge, food and resource scarcity, and land conservation management and control.

Indigenous women have traditional ecological knowledge related to climate change and adaptation in response to climate change. This knowledge is inextricably linked to "land, waters and heritage as inalienable and permanently associated with their identity and territories through ancestral, material and spiritual relationships." In other words, this traditional knowledge is part of their cultural heritage and rights. The western concept of traditional ecological knowledge relates to "a cumulative body of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings with one another and their environment." It is important to note that indigenous women may not agree with that definition, instead referring to their knowledge as coming from other sources such as dreams, ancestors or the spirit world. Traditional ecological knowledge includes observations of weather patterns, ocean and seasonal/cyclical phenomena, fire patterns, water management and other ecological patterns. Some scholars argue that combining traditional indigenous knowledge with scientific responses to climate

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⁸¹ World Health Organization, Gender, Climate Change and Health, Geneva, 2014, p. 25.

⁸² Terry Williams, Preston Hardison, Culture, law, risk and governance: contexts of traditional knowledge in climate change adaptation, CLIMATE CHANGE, 9 January 2013, 531-544, p. 542.

⁸³ Jyoti Acharya, *Climate Change Adaptation Among Chepang Women, The Light Hidden in the Dark*, Women & Environments, Vol. 94/95, Fall 2014/Winter 2015, 28-33, 28.

⁸⁴ Rhys Jones, Hayley Bennett, Gay Keating and Alison Blaiklock, *Climate Change and the Right to Health for Mäori in Aotearoa/NewZealand*, HEALTH AND HUMAN RIGHTS, Vol. 16, No. 1, Climate Justice and the Right to Health (June 2014), 54-68, 56.

<sup>56.

85</sup> Terry Williams, Preston Hardison, *Culture, law, risk and governance: contexts of traditional knowledge in climate change adaptation*, CLIMATE CHANGE, 9 January 2013, 531-544, p. 531.

86 *Id.* at 540.

⁸⁷ Terry Williams, Preston Hardison, *Culture, law, risk and governance: contexts of traditional knowledge in climate change adaptation*, CLIMATE CHANGE, 9 January 2013, 531-544, p. 533.

⁸⁸ *Id.* at 531.

change can lead to new innovations and opportunities to reduce the climate change impact while "maintaining communities' cultural values and resources." 89

Resource scarcity due to climate change is a huge threat to indigenous women and their cultures. Indigenous Chepang women in Nepal have noticed water sources drying out, requiring additional labor to find water. Irregular temperatures have led to insects and diseases in crops. In order to adapt, they have relied on modern technologies, but these strategies have led to a discontinuation of traditional practices which threatens their cultural identity. 90 For example, the Chepang used to practice a form of grain cultivation, called Khoriya, and celebrated the grain as a sacred food item during cultural festivals. Increasingly, fewer crops are produced through Khoriya as the women rely on integrated farming systems that can yield more crops as weather patterns change.⁹¹

Food security is another impact of climate change among indigenous women. For example, among Inuit women in Igloolik, Nunavut, food insecurity is a regularly occurring phenomena due to biodiversity loss from warming weather. 92 This was magnified by the fact that seventy-six percent of the women reported skipping meals or reducing meal sizes to feed other members of their families.⁹³

The Anishinaabe women of the Great Lakes in Canada use water in a variety of ways for cultural benefit. For example, water is used as a source of purification, in ceremonies of healing, rites of passing, naming ceremonies and women's ceremonies. The women are also caretakers of the water in their communities, protecting water sources and quality. Despite their relationship to water, these women did not have a seat at the table to discuss water conservation when their communities took action to mitigate water loss. This in turn disrupted their ability to interact with water in the same ways as before the implementation of the new policies, leading the women to take collective action. This included Mother Earth Water Walks and the formation of Akii Kew, a grassroots women's group to protect water, and the creation of the Women's Water Commission.⁹⁴

Preserving traditional knowledge and indigenous culture in the face of climate change is a priority for many indigenous women. The Traditional Knowledge World Bank is a project that collects a database of traditional knowledge for mitigating desertification and adapting to climate

⁸⁹ Id. at 532.

⁹⁰ Jyoti Acharya, Climate Change Adaptation Among Chepang Women, The Light Hidden in the Dark, Women & ENVIRONMENTS, Vol. 94/95, Fall 2014/Winter 2015, 28-33, 31.

⁹¹Jyoti Acharya, Climate Change Adaptation Among Chepang Women, The Light Hidden in the Dark, WOMEN & ENVIRONMENTS, Vol. 94/95, Fall 2014/Winter 2015, 28-33, 32.

⁹² Maude C. Beaumier, James D. Ford, Food Insecurity Among Inuit Women Exacerbated by Socioeconomic Stresses and Climate Change, CANADIAN JOURNAL OF PUBLIC HEALTH, Vol. 101, No. 3 (May/June 2010), 196-201, 197. 93 Id. at 198.

⁹⁴ Kyle Powys Whyte, Indigenous Women, Climate Change Impacts, and Collective Action, Hypatia, Vol. 29, No. 3, SPECIAL ISSUE: CLIMATE CHANGE (Summer 2014), 599-616, 606.

change. However, in projects like the Traditional Knowledge World Bank that seek to harness these valuable knowledge systems, issues of governance, ownership and control as well as stewardship of the knowledge can arise. 95 Many indigenous women find that their voices are not represented in the dissemination of their traditional practices, threatening their cultural identity.

В. **Climate Change and Poverty**

The effects of climate change are most severely felt by those in poverty. As of 2018, 1.3 billion people in low and middle income countries live below the poverty line and seventy percent of those people are female. 96 Because climate change will disrupt economic systems and structures, women are and will be hit harder economically than men during climate crises. Poverty is already a barrier to the access and enjoyment of cultural rights, as poverty makes it harder for women to continue education, to have time to participate in the cultural life of the community and to have resources (such as money or transportation) to engage in cultural events and activities. Therefore, climate change and poverty together increase the barriers to access and enjoyment of cultural rights.

The wealthiest twenty percent of the world's population consumes eighty-six percent of the world's goods and services, meaning that women in the Global North have a much greater carbon footprint than women in the Global South. 97 The feminization of poverty also means that many poor women contribute to climate change as they access diminishing resources such as fuel and water. 98 When addressing women's poverty and environmental degradation, it is important to consider these inequalities between women in both consumption and access to resources. Economic and climate justice strategies can shift the narrative from blame to participation and engagement.

C. Women with Disabilities

Women with disabilities already face challenges in accessing and enjoying their cultural rights, among many other human rights. Historically, societies have not been built for the differently abled. Climate change will ask the world to build different kinds of societies and radically change where and how people live. Climate change is both an opportunity for the advancement of disability rights and a threat to the already fragile systems in which women with disabilities live

⁹⁵ Terry Williams, Preston Hardison, Culture, law, risk and governance: contexts of traditional knowledge in climate change adaptation, CLIMATE CHANGE, 9 January 2013, 531-544, p. 536.

⁹⁶Sorensen C, Murray V, Lemery J, Balbus J, Climate change and women's health: Impacts and policy directions, PLoS Med (2018), 15(7), 2, https://doi.org/10.1371/journal.pmed.1002603.

97 WECAN, *Unleashing the Power of Women in Climate Solutions*, (last visited 14 April 2020)

https://www.wecaninternational.org/why-women.

⁹⁸ Trish Glazebrook, Women and Climate Change: A Case-study from Northeast Ghana, HYPATIA, Vol. 26, No. 4, Responsibility and Identity in Global Justice (Fall 2001), 762-782, 765.

Climate change disproportionately affects people with disabilities. 99 And climate change disproportionately affects women. As a result, women with disabilities are at an even greater disadvantage due to their multiple identities. In 2019, the UN Human Rights Council adopted a resolution on climate change and persons with disabilities. ¹⁰⁰ This resolution expresses concern for specific needs of women and girls with disabilities who are being impacted and made more vulnerable by climate change.

Disability advocate Alekansdra Kosanic identifies three ways climate change negatively impacts people with disabilities: (1) limited access to knowledge, resources and services to respond to climate change, (2) compromised health, making disabled people more vulnerable to extreme climate events, biodiversity loss or disease; and (3) difficulty evacuating or migrating due to limited mobility. 101 Disabled women will also have to deal with the impacts of gender that affect every aspect of life as well. Disabled women are more likely to face domestic violence. lack access to education and/or employment, and have more difficulty accessing essential services. 102 Climate disasters exacerbate all of these issues, making it more difficult for women with disabilities to participate in the cultural life of the community.

But disabled women can be agents of change as well. Greta Thunberg is an autistic climate activist leading the youth movement for climate action and Patty Berne founded Sins Invalid in the Bay Area, a disability performance collective that often tackles issues of environmental injustice. 103 Both of these women are creating new spaces for disability, gender and climate activism to interact with and influence culture and cultural rights.

D. **Agricultural and Fishing Women**

Climate change is already affecting women whose livelihoods depend on agriculture or fishing. The impacts range from extreme weather events that make farming and fishing more difficult or impossible, to biodiversity loss due to climate change related changes in ecosystems.

For example, when it comes to desertification and land degradation, women in rural areas are vital to their communities through their work in agriculture and animal husbandry, as farmers and entrepreneurs.¹⁰⁴ They directly bear the burdens of land degradation and are often the last to

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⁹⁹ Cara Schulte, Isaac Gazendam, UN Climate Resolution Emphasizes Protection of Disability Rights, People with Disabilities Should be Included in Climate Action, Human Rights Watch, 15 July 2019, https://www.hrw.org/news/2019/07/15/un-climateresolution-emphasizes-protection-disability-rights.

¹⁰⁰ UN General Assembly, Human Rights and Climate Change, Human Rights Council, 9 July 2019, A/HRC/41/L.24.

¹⁰¹ UNEP, How climate change disproportionately impacts those with disabilities, 9 December 2019,

https://www.unenvironment.org/news-and-stories/story/how-climate-change-disproportionately-impacts-those-disabilities. 102 United Nations, Convention on the Rights of Persons with Disabilities, Addressing the vulnerability and exclusion of persons with disabilities: the situation of women and girls, children's right to education, disasters and humanitarian crises, New York, 1 April 2015, CRPD/CSP/2015/4.

Julia Watts Belser, Disabled People Cannot Be "Expected Losses" in the Climate Crisis, Teen Vogue, 23 September 2019, https://www.teenvogue.com/story/disabled-people-vulnerable-climate-crisis.

⁴Convention on Biological Diversity, *The Rio Conventions, Action on Gender*, Montreal, 2012, p. 8.

leave the land. Gender mainstreaming measures for combating desertification and land degradation include emphasizing gender sensitive strategies, increasing participation of women in decision making, building capacity for women's organization, ending illiteracy, minimizing disproportionate workloads between genders and increasing women's employment opportunities and ownership of resources. ¹⁰⁵ Because women represent almost half of the global fisheries workforce, disruptions to fishing practices from climate change will negatively impact women's economic opportunity. ¹⁰⁶

Enforceable land rights for women can improve the management of natural resources while raising women's economic status in their communities. Women can also be change makers in new models of sustainable agriculture. In the U.S., women farmers are helping to create and strengthen communities with new models of "civically-oriented farming." Women in Benin have organized environmentally sustainable methods of oyster harvesting as well as rehabilitating a lagoon to provide generational livelihoods. These models also create sustainable food systems less likely to be impacted by climate change.

Traditional agricultural and fishing methods are closely tied to cultural practices and customs. When traditional agriculture or fishing is no longer feasible, or is impacted by climate change, women who participate in these practices can feel the loss of cultural ties as well as food or income. For example, in traditional fishing communities, women may fish, make nets, and trade or sell catches, although they might not have rights over fisheries. Climate change (in addition to overfishing) is leading to more acidic oceans and less biodiversity of fishable sea creatures. For the Vezo fishing women in Madagascar, loss of biodiversity is a main threat to their traditional fishing practice. 111

E. Women in Low-lying Island Nations

Women who come from low-lying island nations face the threats of climate change every day in rising sea levels. The then prime minister of Tuvalu, Apisai Ielemia, explained that threat to his country in 2007; "Tuvalu is a nation with a unique language and culture... resettlement would destroy the very fabric of our nationhood and culture." Women in low-lying island

¹⁰⁶ Alayna Alvarez, Women Are a Major but Overlooked Part of Fishing Economies, Oceana, 29 March 2017, https://oceana.org/blog/women-are-major-overlooked-part-fishing-economies-new-report-finds.

 $^{^{105}}$ *Id.* at 9.

¹⁰⁷ Deliver for Good, *Policy Brief: Invest in Girls and Women to Tackle Climate Change and Conserve the Environment*, accessed 4/14/2020, https://womendeliver.org/investment/invest-women-tackle-climate-change-conserve-environment/. ¹⁰⁸ Sam Sellers, *Gender and Climate Change in the United States: A Reading of Existing Research*, WEDO & Sierra Club, March 8, 2020, p. 20.

¹⁰⁹ UN Women, The Future Women Want, A Vision of Sustainable Development for All, 2012, p. 17.

¹¹⁰ Garth Cripps, *Kokoly: Fishing for a future*, Oceanographic, accessed 4/14/2020, https://www.oceanographicmagazine.com/features/kokoly-madagascar-fisherwomen/.

Sébastien Jodoin, Katherine Lofts, *Economic, Social & Cultural Rights and Climate Change: A Legal Reference Guide*, New Haven, 2013, p. 100, https://environment.yale.edu/content/documents/00004236/ESC-Rights-and-Climate-Change-Legal-Reference-Guide.pdf?1537875431.

nations are facing the prospects of an existential crisis, having to make hard choices between staying on islands facing increasing climate threats but maintaining ties to culture derived from their land, or resettling in safer areas, while potentially losing a key part of their cultural identity.

Low-lying island nations women have been key players in shifting cultural narratives around climate change, and in addressing the needs of their communities to preserve and protect the cultural identities of the island peoples. For example, former president of the Marshall Islands, Hilda Heine, played an instrumental role in making sure world leaders implemented the Paris Agreement. She also convened the CVF Summit, the first zero-carbon gathering for heads of state on climate change. And Claire Anterea, a climate activist in Kiribati, travels to communities to speak with villagers about the impacts of climate change and spreads those stories around the world, including at the Bali UN Climate Change Conference in 2007. She also founded the Kiribati Climate Action Network, her country's first advocacy group for climate change.

F. Young Women and Girls

Climate change has and will continue to have disproportionate impacts on children, particularly girls. Plan International recognizes climate change as "the most significant intergenerational equity issue of our time. Children and future generations are bearing, or will come to bear, the brunt of its impact on a polluted, degraded planet." Children will also have the burden of finding solutions to climate change and climate change induced problems.

Climate change magnifies existing gender inequalities between girls and boys. Some evidence suggests that climate change is a reason for many early and forced marriages in the global south due to decreasing economic opportunities that put pressure on family incomes. Plan International also identifies the following threats to girls in the face of climate change: increased difficulties accessing education and remaining in school, declines in girls' participation in decision making, malnutrition - as girls are more likely to go hungry, health issues stemming from changes in climate or to water and land, and dangers to sexual and reproductive health. For example, during periods of drought, young girls are often taken out of school to work in agriculture to provide extra income or help mitigate climate related losses.

¹¹³ Beth Murphy, *The Battle Against Climate Change Needs More Women. Specifically, Hilda Heine.*, Bright, 21 November 2018, https://brightthemag.com/battle-against-climate-change-needs-women-hilda-heine-marshall-islands-environment-pacific-c8872892274e

¹¹⁴ Mike Ives, *In Kiribati, A Former Catholic Nun Has Become a Sort of Paul Revere for Climate Change*, Sierra Club, 13 October 2016, https://www.sierraclub.org/sierra/2016-6-november-december/feature/kiribati-former-catholic-nun-has-become-sort-paul-revere-for.

Plan International, Climate Change Focus on Girls & Young Women, September 2019, p. ii.

¹¹⁶ *Id.* at 5.

¹¹⁷ *Id.* at 5-6.

UNEP, Women at the Frontline of Climate Change, Gender Risks and Hopes, Norway, 2011.

Only forty-two percent of country level climate strategies include direct reference to children or youth. 119 Young women are underrepresented in many of the global climate conferences. 120 This means that young women and girls, while most vulnerable, are not recognized as being burdened by climate change; nor are they recognized as agents of change to address the climate crisis. When girls were asked what would help them to deal with climate change, they responded as follows: greater access to quality education, greater protection from gender-based violence and greater participation in climate change decision making. 121

Even while being excluded as decision makers and stakeholders, young women and girls are continuing to make their voices heard in the global movement to combat climate change. Some of the loudest and strongest voices in the movement for climate action have been young women and girls. Greta Thunberg raised awareness with her Fridays for Future climate change movement. 122 She has led millions of youth to protest climate inaction by holding regular school strikes on Fridays. Xive Bastida, of Mexico, an indigenous youth activist, has called for "indigenous knowledge and cosmology" to be part of the climate movement. 123 Jamie Margolin of Columbia/USA, co-founded Zero Hour, an activist group that focuses on education, lobbying and protest for the climate movement. 124 Hilda F. Nakabuye organizes plastic clean-up efforts and climate change awareness in Uganda. 125 Nine-year old Ridhima Pandey sued the Indian government for failing to address climate change in 2017. 126 And Brianna Fruean fights for climate justice in Samoa and in the Commonwealth. 127 These are a few examples of young women and girls assuming the climate movement as a cultural movement, fighting for their environmental rights and their ability to enjoy their futures on planet earth.

IV. **Climate Challenges for Women's Cultural Rights**

Climate change is affecting cultures around the world. Negative impacts from climate change on culture include loss of place, loss of cultural heritage sites, disruption of communities and interruptions in ways of life. Climate change is negatively impacting the ways in which women access and enjoy their cultural rights. Women already face hurdles to accessing and enjoying their cultural rights, from poverty and educational deficiencies, to gender-based

 $^{^{119}\} Christina\ Kwauk, Jessica\ Cooke,\ Elisa\ Hara,\ Joni\ Pegram,\ Girls\ education\ in\ climate\ strategies,\ Opportunities\ for$ IMPROVED POLICY AND ENHANCED ACTION IN NATIONALLY DETERMINED CONTRIBUTIONS (Global Economy & Development at Brookings, Working Paper 133) December 2019.

¹²⁰ Plan International, Climate Change Focus on Girls & Young Women, September 2019, p. 16.

¹²¹ CHRISTINA KWAUK, JESSICA COOKE, ELISA HARA, JONI PEGRAM, GIRLS EDUCATION IN CLIMATE STRATEGIES, OPPORTUNITIES FOR IMPROVED POLICY AND ENHANCED ACTION IN NATIONALLY DETERMINED CONTRIBUTIONS (Global Economy & Development, Brookings, Working Paper 133, December 2019) p. 4.

¹²² Nylah Burton, Meet the young activists of color who are leading the charge against climate change, Vox, 11 October 2019, https://www.vox.com/identities/2019/10/11/20904791/young-climate-activists-of-color.

Joe McCarthy, Erica Sanchez, 12 Female Climate Activists Who Are Saving the Planet, Global Citizen, 18 April 2019, https://www.globalcitizen.org/en/content/female-activists-saving-planet/. ¹²⁶ *Id*. ¹²⁷ *Id*.

violence and patriarchal societal structures. Climate change can make accessing and enjoying cultural rights more difficult for women.

Women face issues accessing and enjoying cultural rights when their health and safety is at risk, when natural disasters disrupt communities, when they are displaced, when their freedom of movement is restricted and when they lack the education, political or economic means to fully participate in society. Climate change affects all those issues and magnifies the negative complications that arise from them.

A. Loss of Place

One negative consequence of climate change is the displacement of persons and whole communities. The report of the Special Rapporteur in the field of human rights recognizes "climate change will contribute to forced migration, but the ability to migrate often depends on mobility and resources. As a result, those who are most vulnerable may be unable to migrate, instead remaining in locations that are subject to the harms caused by climate change. Those who do migrate may be particularly vulnerable to human rights abuses, since they may often be doing so in an irregular process." 128

Climate migration is likely to occur due to phenomena such as drought, severe storms and rising sea levels. ¹²⁹ Around 21.5 million people are displaced because of climate change each year. ¹³⁰ By 2050, 143 million people may be displaced due to climate change and most of them will be women and children. ¹³¹ Women and children are fourteen times more likely than men to die or be injured due to a natural disaster. ¹³²

Climate change is forcing refugee and displaced status on millions around the world. An increased number of people are becoming displaced due to severe weather events linked to climate change. ¹³³ For example, the Alaskan Native village of Kivalina must be relocated due to climate change. Unfortunately, the women of Kivalina are being excluded from the transitionary process. ¹³⁴ Some people are reluctant to leave their domiciles due to place attachment, or the attachment to a particular location, even in the face of severe weather patterns, loss of income or other negative effects of climate change. Place attachment leaves some unwilling to relocate due

¹²⁸ UN General Assembly, Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, Human Rights Council, 1 February 2016, A/HRC/31/52, p. 8.

¹²⁹ Nicole Detraz and Leah Windsor, *Evaluating Climate Migration, Population Movement, Insecurity and Gender*, International Feminist Journal of Politics, Vol. 16, No. 1, (2014) 127-146, 128.

¹³⁰ Deliver for Good, *Policy Brief: Invest in Girls and Women to Tackle Climate Change and Conserve the Environment*, (last visited 14 April 2020) https://womendeliver.org/investment/invest-women-tackle-climate-change-conserve-environment/.
¹³¹ Id.

¹³² *Id*.

¹³³ UN Women Watch, *Fact Sheet: Women, Gender Equality and Climate Change*, 2009, http://www.un.org/womenwatch/feature/climate change/.

¹³⁴ Christine Shearer, *The Social Construction of Alaska Native Vulnerability to Climate Change*, RACE, GENDER & CLASS, Vol. 19, No. 1/2 (2012), 61-79, 63.

to cultural and community ties. Since attachment to a place can be closely linked with belonging and a sense of community, some are unwilling to leave because it will require leaving social and emotional support groups and adapting to new communities and cultures.¹³⁵

The decision to migrate is highly gendered. The migration decision is often riddled with issues relating to the networks that facilitate the migration, the problems likely to be encountered on the journey and the types of opportunities at the destination. Migration and displacement are dangerous for anyone, but especially women and girls. Women and girls face gender-based violence on route to their destination countries and may be forced to trade sex with border guards and others in positions of power in order to continue on their journeys. They also face greater risks of being trafficked for sex work and labor. 137

Women may spend years or lifetimes displaced due to climate change as there is no foreseeable end in sight. During times of migration women are separated from their communities, places of belonging and support systems. In other words, women may be separated from the very structures that help to make up their cultural identities. Women who are displaced may feel a sense of loss or detachment from their culture, and may be forced to adopt or adapt to a new culture in their destination.

B. Loss of Cultural Heritage Sites

Climate change also poses a threat to cultural heritage sites. Due to gender bias in cultural heritage conservation, the selection of many monuments and preserved sites were decided by men. Yet there are still many sites dedicated to women, or important to women's cultural heritage, that face the external threat of climate change. Cultural sites important to women include the Tombs of Buganda (where women are the temple caretakers), the women's spiritual communities of Flemish Béguinages, or Frida Khalo's house in Mexico City. Cultural heritage sites can face damage from increasingly acidic rains, air pollution, extreme weather events and rising sea levels.

Less discussed are the effects on women of extractive industries that are contributing to climate change. Extractive industries are those that remove raw materials from the earth. When considering the earth as a whole cultural ecosystem, extractive industries disrupt the natural environment, induce climate change and can be viewed as threatening the cultures of the people that live in the disrupted areas. Globally, women are responding to threats to their communities and cultural sites posed by extractive industries that contribute heavily to climate change. In

¹³⁵W. Neil Adger et. al., *Cultural Dimensions of Climate Change Impacts and Adaptations*, NATURE CLIMATE CHANGE, Vol. 3, February 2013, 112-117, 112-113.

¹³⁶ Nicole Detraz and Leah Windsor, *Evaluating Climate Migration, Population Movement, Insecurity and Gender*, INTERNATIONAL FEMINIST JOURNAL OF POLITICS, Vol. 16, No. 1, (2014) 127-146, 134.

¹³⁷ MAYESHA ALAM, RUKMANI BHATIA, BRIANA MAWBY, WOMEN AND CLIMATE CHANGE, IMPACT AND AGENCY IN HUMAN RIGHTS, SECURITY AND ECONOMIC DEVELOPMENT (Georgetown Institute for Women, Peace and Security 2015) p. 31. ¹³⁸ World Heritage, *Gender Equality*, UNESCO, February 2016, https://whc.unesco.org/en/review/78/.

1999, Nigerian women started a world movement to stop flaring natural gas. Due to their efforts in organization and protest, Shell Oil Company decreased production by 400,000 barrels of oil per day. As a result of their ongoing protests in 2006, the Nigerian courts ordered Shell to completely stop the flaring of natural gas in the western part of the Niger Delta. 139

C. Disruptions to Ways of Life

Climate change will eventually disrupt many areas of life for all people. Part of cultural rights is the ability to sustain and contribute to the ways of life in a society; climate change will make sustaining and contributing more difficult. For example, air pollution will impact cultural gatherings taking place outdoors such as Olympic events. Extreme weather events will disrupt not just daily life, but also sustained community traditions and events, such as Mardi Gras or Lunar New Year festival. Biodiversity loss from climate related phenomena such as the Amazonian fires or bleaching of the coral reefs threaten enjoyable natural wonders.

Climate change has, and will continue to, disrupt the patterns and practices that make up ways of living. Women are on the forefront of making changes in everyday life. Women in Bangladesh developed wind and flood resistant housing foundations. ¹⁴⁰ 1 Million Women, an Australian organization, promotes sustainable life-style changes to combat climate change, such as reducing packaging and plastics, shopping second-hand, eliminating food waste and eating less meat. ¹⁴¹ In central Africa, ninety percent of Lake Chad has dried up, forcing women to walk further distances to collect water. ¹⁴² Women in Shipkovica, in the former Yugoslav Republic of Macedonia, organized to bring public transportation to their town after severe floods in 2015 damaged the roads. ¹⁴³

Gender also plays an important role in everyday activities that impact the climate. In emissions-intensive production and consumption there are gendered differences. ¹⁴⁴ For example, in some western societies, men may have a higher environmental footprint from activities such as eating more meat, mowing and watering lawns, washing cars and driving longer distances/taking less public transportation. This is in contrast to other societies where women are the primary water gatherers or cook with energy deficient fuels.

¹³⁹MAYESHA ALAM, RUKMANI BHATIA, BRIANA MAWBY, WOMEN AND CLIMATE CHANGE, IMPACT AND AGENCY IN HUMAN RIGHTS, SECURITY, AND ECONOMIC DEVELOPMENT (Georgetown Institute for Women, Peace and Security 2015) p. 38.

¹⁴⁰ Osprey Orielle Lake, Claire Greensfelder, Elaine Colligan, *Women's Climate Action Agenda*, WECAN, 2015, p. 26, https://e01c23b4-9f2e-4830-9320-a86de06b013e.filesusr.com/ugd/bf92a9_5bf690f628354586a58189ee17704c6a.pdf.

¹⁴¹ One Million Women, *Take Action*, (last visited 14 April 2020) https://www.1millionwomen.com.au/campaigns/. ¹⁴² Mary Halton, *Climate change 'impacts women more than men*,' BBC, 8 March 2018, https://www.bbc.com/news/science-environment-43294221.

environment-43294221.

143 UN Women, *Across the Western Balkans, rural women are influencing local budgets and shaping progress*, 13 October 2017, https://www.unwomen.org/en/news/stories/2017/10/feature-western-balkans-rural-women-influencing-local-budgets.

144 Rebecca Peasrse, *Gender and Climate Change*, WIRES CLIMATE CHANGE, Vol. 3, 2017.

The impacts of climate change are not relegated to one aspect of life, but permeate all areas of life - from the everyday to the occasional. Women are already adapting to climate change through lifestyle, economic and resource management choices. Women are also creating new cultural practices and customs to account for climate change and are creating sustainable lives that will benefit all of society.

V. Advancing Women's and Cultural Rights in Response to Climate Crisis

While the negative effects of climate change are alarming and upsetting, responding to climate change provides opportunities to explore new cultural practices, enhance ways of life and promote the human rights of women all around the world.

Generally, women are more concerned with and more likely to believe the science surrounding climate change than men. For example, in the United States as of 2017, seventy-two percent of women believed climate change was happening compared to sixty-nine percent of men; and fifty-three percent of women thought climate change was harming the U.S. while only forty-five percent of men held the same belief. These gendered discrepancies suggest that women will be on the forefront of efforts to respond and adapt to climate change. Climate change provides opportunities for women's participation in politics and leadership roles. It also motivates and promotes women as stakeholders in the "green" future. Finally, women are creating opportunities for activism in almost every area of life, and particularly in the arts, to express cultural responses to climate change.

A. Women's Political Participation

Women's increased political participation, in addition to an increase in women's leadership roles in communities, can help to mitigate both gender inequalities and climate change. There is a strong correlation between the increased status of women in political and social spheres and better outcomes for the planet, as well as improved outcomes for families. For example, an increase of women in national representation is associated with reductions in carbon emission levels. Similarly, more women environmental managers contribute to increased resource conservation. However, a 2015 study of 65 countries revealed that only thirty-five

¹⁴⁵Sam Sellers, Gender and Climate Change in the United States: A Reading of Existing Research, WEDO & Sierra Club, March 2020, p. 20.

¹⁴⁷ IUCN, Gender and Climate Change, Strengthening Climate Action by Promoting Gender Equality, November 2015, https://www.iucn.org/downloads/gender and climate change issues brief cop21 04122015.pdf.

¹⁴⁸ CHRISTINA KWAUK, JESSICA COOKE, ELISA HARA, JONI PEGRAM, GIRLS EDUCATION IN CLIMATE STRATEGIES, OPPORTUNITIES FOR IMPROVED POLICY AND ENHANCED ACTION IN NATIONALLY DETERMINED CONTRIBUTIONS (Global Economy & Development, Brookings, Working Paper 133, December 2019) p. 5.

¹⁴⁹ Joane Nagel, *Gender, Conflict, and the Militarization of Climate Change Policy*, PEACE REVIEW: A JOURNAL OF SOCIAL JUSTICE, 27:202-208, 207.

percent of environmental sector ministries had a gender focal point. ¹⁵⁰ And women continue to be underrepresented in national parliaments and at decision making levels.

Climate change has inspired a generation of new activists. The youth climate movement is largely self-organized and drives new social movements, organizations and projects. ¹⁵¹ Young women and girls are some of the most prominent and vocal activists organizing for responses to climate change. These activists are changing the narrative on climate change and pushing not just a reactive but a proactive narrative, forcing leaders to think about legacies they leave for future generations.

Women politicians are also leading the way on climate change efforts. A study by Curtin University (Australia) found female representation in national parliaments leads countries to adopt stronger climate change policies. 152 Women are not only acting as elected leaders, but also diplomats, negotiators and lobbyists. Christiana Figueres (Costa Rica) led a climate change nonprofit and then became the leader of the UNFCCC, helping leaders negotiate the Paris Agreement in 2015. 153 Hindou Oumarou Ibrahim (Chad) works to bridge the gap between indigenous groups and policy makers, including leading indigenous groups to lobby for rights at the Paris climate meetings in 2015. 154 Tessa Khan (Thailand, England) helps people sue their governments over failures to respond to climate change. And Sunita Narain (India) is an environmental policy expert who has helped transform conversations on climate change to actionable climate policies. 155 These are just some of the women participating in politics, law and policy to ensure that governments and international associations continue moving forward on sustainable climate policy.

Women as Stakeholders in a Green Future В.

Many activists argue for a Green New Deal or similar initiatives, to provide comprehensive policy change promoting sustainable responses to climate change while creating new economic opportunities and shifting toward more sustainable lifestyles. Women are and can be strategic stakeholders in a "green" future, helping to implement sustainable cultural practices and protect traditional cultural practices in new ways. When gender is accounted for in climate policies, climate strategies tend to reference women as victims instead of active change

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¹⁵⁰ Deliver for Good, Policy Brief: Invest in Girls and Women to Tackle Climate Change and Conserve the Environment, (last visited 14 April 2020) https://womendeliver.org/investment/invest-women-tackle-climate-change-conserve-environment/. ¹⁵¹ Plan International, Climate Change Focus on Girls & Young Women, September 2019, p. 18.

¹⁵² Samantha Harrington, Countries with more female politicians pass more ambitious climate policies, study suggests, Yale Climate Connections, 12 September 2019, https://www.yaleclimateconnections.org/2019/09/countries-with-more-femalepoliticians-pass-more-ambitious-climate-policies-study-suggests/.

153 Time Staff, Meet 15 Women Leading the Fights Against Climate Change, Time, 12 September 2019,

https://time.com/5669038/women-climate-change-leaders/. ¹⁵⁴ *Id*. ¹⁵⁵ *Id*.

makers. 156 And yet women are adaptable, dynamic and hold multiple identities that inform their experiences, which can all be assets when creating climate policies.

Women across the globe have critical knowledge that can be used to address climate change adaptation and mitigation. Unfortunately, women's participation is limited by restricted land rights, lack of access to financial resources, training and technology and limited access to political decision making spaces. ¹⁵⁷ An Australian study revealed that when responding to climate change threats, women benefit from activities promoting collective action, even from informal networks and conversations with other women. ¹⁵⁸ For example, in Peru, Grupo Ciudad Saludable organized informal waste scavengers to collect, recycle and dispose of waste for four million people. The organization is led by women and the majority of scavengers are women. 159 In Kenya, Wangari Maathai started the Green Belt Movement to plant trees to help replenish natural resources and reduce vulnerability to climate change. 160 When she did so, she also started an international movement and shifted cultural perceptions around climate change.

Women are turning climate change into opportunities for agency, and shifting cultural narratives in the process. Women in Micronesia found new sources of potable water during a drought, becoming community leaders. Women were included in disaster response preparedness plans in Guatemala and Honduras following Hurricane Mitch, enabling women to take on new leadership roles which were previously considered male roles. And in East Africa, Solar Sisters was established to eradicate energy poverty. As part of its program, it provided women with solar energy kits, business training and a women-centered sales network to bring solar energy to over 20,000 people. 161 The Self-Awareness Forum and the Women's Agricultural Group are two groups in Indonesia that encourage women to become stakeholders in their communities to address problems and find solutions to climate change. 162 These types of programs encourage women to be leaders in the movement towards a "green" and sustainable future.

C. Women, Art, and Activism

Art has always provided a medium through which to express the pillars and pitfalls of society. In response to climate change, women are creating art as a vehicle of expression, which

¹⁵⁶ CHRISTINA KWAUK, JESSICA COOKE, ELISA HARA, JONI PEGRAM, GIRLS EDUCATION IN CLIMATE STRATEGIES, OPPORTUNITIES FOR IMPROVED POLICY AND ENHANCED ACTION IN NATIONALLY DETERMINED CONTRIBUTIONS (Global Economy & Development. Brookings, Working Paper 133, December 2019) p. 9.

¹⁵⁷ IUCN, Gender and Climate Change, Strengthening Climate Action by Promoting Gender Equality, November 2015, https://www.iucn.org/downloads/gender and climate change issues brief cop21 04122015.pdf.

Heather Boetto, Jennifer McKinnon, Rural Women and Climate Change: A Gender-Inclusive Perspective, AUSTRALIAN SOCIAL WORK, Vol. 66, No. 2, 2013, 234-247, 244.

159 UN Women, *The Future Women Want, A Vision of Sustainable Development for All*, 2012, p. 11.

¹⁶⁰ UN Women Watch, Fact Sheet: Women, Gender Equality and Climate Change, 2009, http://www.un.org/womenwatch/feature/climate change/.

UN Women, The Future Women Want, A Vision of Sustainable Development for All, 2012, p. 20.

¹⁶² Nila Ardhyarini, et. al., Mainstreaming gender in climate change adaptation in Cirebon, Indonesia, INTERNATIONAL INSTITUTE FOR ENVIRONMENT AND DEVELOPMENT, 2016, p. 2.

then becomes an act of activism. The arts help open new avenues of understanding for the way in which societies will adapt as the climate changes. 163

For example, Mallee women in Australia came together to address climate change and forge social connections during times of extreme drought. They did this through cultural expression of community and connectivity. One such expression was an event in which 500 women travelled to a secret location to perform a rain-dance in the nude. And Anne Tart of Fiji uses traditional tattooing to explore climate change and culture loss as a loss of the way of life 165

Culture and Climate Change: Scenarios, was a project launched at the UNFCCC COP 21 in 2015. The project uses art to start public conversations about future climate scenarios. Many women contributed to the project - showcasing how artistic interpretations of climate change by women can greatly contribute to society's understanding and internalization of its impacts. For example, Emma Critchley used audio-visual scenarios to explore climate change in the non-human natural world and Zoe Svendsen used performance art to consider the economic and social cultural consequences of climate change. 167

Other examples of women using art as activism in response to climate change include: Monica Jahan Bose, whose project connects women in the U.S. with women in Bangladesh who are experiencing climate change in "Storytelling With Saris;" Naziha Mestaoui created virtual forests in cities to encourage tree planting; 169 and Jessica Sim (Turkey) founded NADAS, a creative house in Istanbul that supports projects exploring the relationship between people, urban life and the environment. 170

Art is a unique expression of the human condition and interpretation of the human experience. As our climate changes, women artists will provide an invaluable way to document, process, and help us address changes in our environment.

¹⁶³ Joe Smith, Renata Tyszcuk, *Culture and climate change scenarios: the role and potential of the arts and humanities in responding to the '1.5 degrees target,'* ENVIRONMENTAL SUSTAINABILITY 2018, Vol. 31, 56–64, 57.

¹⁶⁴ Deb Anderson, *Climate Lived and Contested: Narratives of Mallee Women, Drought and Climate Change*, HECATE, Vol. 38, 2021, 24-41, 32.

¹⁶⁵ Cresantia Frances Koya, *In the Absence of Land, All We Have is Each Other, Art*, *Culture and Climate Change in the Pacific*, 2012, p. 13, http://repository.usp.ac.fj/5755/1/Paper In the Absence of Land--s.pdf.

¹⁶⁶ Joe Smith, Renata Tyszcuk, *Culture and climate change scenarios: the role and potential of the arts and humanities in responding to the '1.5 degrees target*,' Environmental Sustainability 2018, Vol. 31, 56–64, 59. ¹⁶⁷ *Id.* at 59-60.

Robin Happel, *Women Artists and Activists Speak Out at the Global Climate Action Summit*, UNA-USA, 27 September 2018, https://unausa.org/women-artists-and-activists-speak-out-at-the-global-climate-action-summit/.

¹⁶⁹ Katherine Brooks, 18 Green Artists Who Are Making Climate Change and Conservation A Priority, Huff Post, 15 July 2014, https://www.huffpost.com/entry/environmental-art n 5585288.

Yingbi Lee, 20 Inspiring Women Leading In Art and Climate, Julie's Bicycle, 7 March 2019, https://juliesbicycle.com/resource hub/20-women-leading-art-and-climate/.

VI. Conclusion

Climate change will continue to impact women's cultural lives in ways both large and small, but it will not affect each woman the same. Climate change will stress women's abilities to access and enjoy their cultural rights, but it will also offer new paths for cultural expression. Women have an opportunity to become leaders in all aspects of the response to climate change, and in doing so to promote their own rights.

Gender mainstreaming is essential to mitigating the negative effects of climate change on the intersection of gender and cultural rights. Gender mainstreaming throughout all climate targets (such as lowering emissions) can decrease the negative effects of climate change on women and girls. Gender mainstreaming practices include ensuring participation of women in climate interventions; prioritizing the education of women and girls; improving gender-disaggregated data; increasing preplanning to address women's assets and vulnerabilities in climate change management; improving coordination between the public and private sector; and finally, redefining success so that women's health and economic prosperity can serve as surrogate markers for development.¹⁷¹

The intersection of gender, culture, and the environment poses unique challenges and new opportunities for policy makers. While some cultural markers will be lost to climate change, others will adapt, and new ones will be created. What the research makes clear is that women, in many contexts and especially cultural ones, are essential to the development of any meaningful and effective response to the climate crisis we face today.

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¹⁷¹Citation: Sorensen C, Murray V, Lemery J, Balbus J, Climate change and women's health: Impacts and policy directions, PLoS Med (2018), 15(7), 7, https://doi.org/10.1371/journal.pmed.1002603.