



backgrounder

Environmental and Climate Change: A Gender Perspective

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Executive Summary

Environmental and climate change are not gender neutral.

Environmental issues are disproportionately affecting women and gender diverse people, particularly those who are racialized, Indigenous, living in poverty, or living with disabilities. Although this relationship has long been observed by communities and activists on the ground, it is still just emerging in policy and research discussions.

This paper provides an overview of these gendered impacts.

Put simply, environmental degradation has uneven effects on populations because of existing inequities, which are made worse by environmental and climate change. As a result, women and gender diverse people, particularly those who are racialized, Indigenous, living in poverty, or living with disabilities, are more severely impacted by the effects of environmental and climate change on

- economic security
- paid and unpaid work
- health and well-being
- migration
- food security/sovereignty
- gender-based violence

The paper discusses the benefits of a feminist analysis of, and approach to, environmental and climate issues. Not only does incorporating a gender-based analysis allow us to better understand the extent of the environmental challenges we face, but it will also help us to conduct stronger research and develop better policies.

Furthermore, it is crucial that women and gender diverse people are meaningfully involved in decision-making and policy-making processes. In fact, their involvement is shown to make for more effective policies and projects.

Relatedly, women, particularly Indigenous women, possess a great deal of ecological knowledge and expertise. They see first-hand the effects of environmental and climate change, as they are often on the front lines, and thus, are well positioned to inform strategies for mitigation and adaptation. Respecting Indigenous knowledge and rights will be particularly important to tackling climate change.

Although there are still many barriers, it is worth recognizing that women, especially racialized and Indigenous women, have long been at the forefront of movements for change. The paper concludes by highlighting some examples in which women are leading initiatives and movements that advance sustainability and social justice.

1. Introduction

The rapidly changing climate, and environmental changes more broadly, have uneven effects across geographic regions, as well as across economic and social groups. This means that women and gender diverse people, particularly those who are racialized, Indigenous, living in poverty, or living with disabilities, are more severely affected by environmental issues. They are more likely to face risk to their health, livelihoods, safety, food security, and other aspects of life as a result of environmental degradation.

Communities on the ground have long observed this trend, observations echoed by environmental-justice activists and researchers. In global climate talks, even states have begun to recognize that climate change has uneven effects within and between countries, with poorer and marginalized communities bearing the brunt. However, the unique and disproportionate effects on women and gender diverse people and efforts to curb them are still only emerging topics in policy and planning. And so, this paper aims to amplify the analysis on the link between gender and environment, as well as, the calls to action.

A feminist analysis reveals the ways in which gender and other factors make some people more vulnerable to environmental issues than others. It also highlights the valuable knowledge, skills, and experiences that women and gender diverse people bring to addressing environmental challenges. Indeed, women, especially Indigenous and racialized women, have long been key agents of change and at the forefront of movements for environmental and social justice. The paper focuses on these areas of opportunity, highlighting how gender equity benefits us all.

2. Gendered Impacts of Environmental and Climate Change

What does gender have to do with the environment? There are actually many ways in which environmental degradation has a greater effect on women, girls, and gender diverse people. They also face barriers to responding to environmental crises.

These uneven effects are, in short, the result of existing inequities, which are in turn exacerbated by environmental and climate change. This relationship is somewhat intuitive. If women have generally lower economic security, income, political power, and social status than their male counterparts, they will be less able to prevent or adapt to environmental and climate change.¹

Marginalized Women and Communities Hit Hard

This also means that women of marginalized communities—racialized women, Indigenous women, women living in poverty, women with disabilities, and LGBTQI2S people—are particularly vulnerable. In other words, these differential impacts are “based on pervasive historical and existing inequalities and multidimensional social factors rather than biological sex.”² It is worth noting that the gendered impacts of

climate change are more pronounced in developing, or Global South, countries,³ but they also exist in countries like Canada.

How Environmental Disasters Specifically Affect Women

Extreme weather events and disasters, like floods, droughts, and storms, lead to widespread hardship, but women and girls are disproportionately exposed to risk during and after these events. The same is true for climate change effects like land degradation, sea-level rise, increasingly severe weather events, crop-yield decline, and desertification.⁴ What's more, climate science shows that extreme weather events and disasters are on the rise due to climate change, that is, with increasing prevalence and severity.

In climate-related disaster and crisis contexts, women are more likely to experience loss of livelihood, rising economic insecurity, health issues, threats to personal safety, and limits on economic and social opportunities.⁵ For example, research in northern Mali found that as droughts were increasingly hurting crop production, men were migrating to find employment. This left women to take on men's work on top of their own workloads, though they did not have the same rights to control of the land or the financial resources. Additionally, for class reasons, some women were barred from taking on additional work to supplement their agricultural income, meaning they were less able to adapt.⁶

Women are more likely to die in disasters than men.⁷ Each day, over 500 women and adolescent girls die from complications during pregnancy and childbirth in settings where there is conflict, displacement, or natural disasters.⁸ Studies also show that women are at a greater risk of dying during the increasing number and severity of heat waves. During the 2003 European heat wave, for example, more women than men died.⁹ Again, climate change is predicted to make such events more common.

In 1991, the tropical cyclone in Bangladesh killed hundreds of thousands of people, 90% of which were women. Researchers suggest one reason is because women are more likely than men to be at home engaged in caregiving or other responsibilities.¹⁰ The same was observed in Indonesia following the 2004 tsunami.¹¹

It is worth noting that the role of gender and other social factors, and the related norms and power dynamics, are complex and context specific. Scholars have written about the danger in essentializing or homogenizing women (or any group) as a whole, as doing so can mask important differences.¹²

Pronounced Impacts on Marginalized Communities

What is clear is that people with disabilities, the elderly, racialized communities, and people living in poverty are particularly vulnerable to the effects of extreme weather and environmental disasters, meaning women in these groups face the most risk.¹³ For example, during storms or floods, people with disabilities face barriers to evacuating, such as finding accessible transportation, and ensuring their health care or other

services will follow them.¹⁴ Furthermore, people with disabilities experience a higher risk of neglect, abandonment, or loss of life during natural disasters and migration.¹⁵

Indigenous and racialized communities in Canada have been disproportionately affected by climate change and the pollution of water and lands.¹⁶ This is evident in the numerous Indigenous communities across Canada that do not have safe drinking water. In the case of Asubpeeschoseewagong (Grassy Narrows) First Nation, mercury contamination by a paper mill in the 1960s poisoned the river system and the fish, and fueled a health crisis that remains unaddressed to this day.¹⁷

The case of Africville, Halifax, is also telling. Beginning in late 19th century, the primarily Black community was subjected to forms of anti-Black racism. In addition to facing blatant racism from white Halifax residents, the community was repeatedly denied basic services like garbage disposal, sewage systems, and access to clean water by the City of Halifax throughout the first half of the 20th century. The environmental and health effects were compounded by the City building things like a dump and a hospital for infectious diseases in the area. Then, in 1964, the residents were subjected to a forced relocation, which exacerbated their economic insecurity and severed community ties.¹⁸

These are examples of what is known as environmental racism.¹⁹

Economic Security

A key link is economic security. People living in poverty are more vulnerable to all forms of environmental degradation. Women are more likely than men to live in poverty or have low incomes, globally and in Canada.²⁰ Since women and gender diverse people who are racialized, Indigenous, non-heterosexual, or living with disabilities are more likely to face employment barriers and have lower incomes, they are made even more vulnerable.²¹

Globally, people living in poverty tend to be more reliant on natural resources, and thus are disproportionately affected by environmental changes.²² There is also a connection to gender roles. Because of traditional or cultural gender-based roles as carers, food growers and harvesters, and water gatherers and protectors, women are often closely tied to natural resources and the environment.²³

This means that their livelihoods—and, in some cases, their cultures—are affected by environmental degradation. For example, seaweed farming in Zanzibar is predominantly performed by rural and Indigenous women. As climate change is warming the waters, they have seen a decline in production, in turn putting their livelihood in jeopardy.²⁴

Climate change is compounding existing environmental issues, but also issues like poverty and conflict. The combined result is increased global migration,²⁵ and what are known as climate refugees.²⁶ People living in poverty are more likely to be displaced by extreme weather events.²⁷ Furthermore, while all migrants face similar challenges, women migrants are more likely to face limitations because of gender-based discrimination. For example, they are more likely to end up in low-paid work.²⁸

Effects on Health

Studies show that climate change also has “profound implications for human health.” *The Lancet* medical journal reports that climate change exacerbates existing health challenges and, as its effects worsen, we are likely to see a rise in diseases and fall in health outcomes.²⁹ Those who already face health challenges, for example, disabilities, are likely to more acutely experience health impacts of climate change.³⁰

This means that, without intervention, gender differences in health are likely to be exacerbated as well. Women and pregnant persons are more vulnerable to extreme weather events, experiencing more physical and mental health effects.³¹ One study on the aftermath of Hurricane Katrina confirmed that women, people with lower incomes and education levels, people who are unemployed, and people with disabilities had higher rates of anxiety and mood disorder.³²

Women, particularly women living in poverty, are more vulnerable to climate-related health risks like undernutrition and malaria. A pregnant person is more “appealing” to malaria-carrying mosquitos, and thus is particularly vulnerable to malaria, the prevalence of which is likely to rise due to warming temperatures. Also, women and girls face higher health risks due to limited access to food or water.³³

Effects on Work and Livelihood

Climate change impacts women’s working lives, too. A study by the International Labour Organization (ILO) finds that outdoor air pollution in cities has led to a spike in the gender gap in formal or paid working hours. Because of their caregiving responsibilities, women are more likely to miss work or reduce their hours in order to take on informal work, such as caring for children who are unable to attend school in these conditions.³⁴ In Canada, women are still overrepresented as caregivers, in both paid and unpaid care work.³⁵ They are likely, then, to face a rising demand for care as climate change negatively impacts people’s health and the security of society’s most vulnerable.³⁶

As the majority of food producers in the Global South, women are directly affected by the stresses on food and agricultural production.³⁷ The effects of climate change and environmental degradation threaten not only the sustainability of food systems, but also, in turn, women’s livelihoods, food access, and control over their food system, known as food sovereignty.³⁸ For example, changing weather patterns mean women producers need to work harder to secure food for their families and to sustain their livelihoods.³⁹ During disasters, and when food supply is limited, women are more likely to make sacrifices to prioritize their family’s well-being, for instance, by eating less food.⁴⁰

Indigenous women play an important role in local and traditional food systems as knowledge holders, and thus are deeply affected by these changes. Food insecurity exists across Canada, but it is most pronounced in Indigenous communities, particularly in the North.⁴¹ Climate change is exacerbating this problem by contributing to the declining availability of traditional foods and country foods, the wild foods the Inuit harvest from their land and waters.⁴²

Gender-based Violence

Environmental and climate change effects are also gendered in the way they fuel violence. During droughts, floods, storms, and displacement due to disasters, gender-based violence increases.⁴³ Those already at greatest risk of gender-based violence, such as women and transgender people, are especially vulnerable to rising violence due to climate change.⁴⁴

Resource extraction, too, is tied to violence, with women and Indigenous communities experiencing the worst effects.⁴⁵ In Canada, resource extraction projects and sites are correlated with increased violence against Indigenous women, girls, and gender diverse people.⁴⁶ Canadian mining companies working abroad have become known for violating human rights. Reports and legal cases have exposed the violence, rights abuses, and environmental harm caused by these companies, particularly in Latin America, and the pronounced effect on women and racialized and Indigenous communities.⁴⁷

Furthermore, environmental degradation, itself, is a form of violence. According to the Native Women's Association of Canada,

Violence against the earth is violence against our women, girls and gender diverse people. In each Indigenous community, women, girls and gender diverse people hold unique relationships with the lands that are Nation/traditional territory specific. Colonialism has tried to destroy this relationship by forcibly displacing Indigenous communities and removing women, girls and gender diverse people from their traditional roles. Violence like this is committed against Indigenous women, girls, gender diverse people and their communities to prevent traditional ways of knowing and being from being passed onto their children. The result is communities losing or adapting their cultural teachings.⁴⁸

Responses and Policies Must End Gender Injustice

As governments respond to environmental and climate change, they must be sure that new policies do not reproduce gendered effects. Already, research shows that some climate-related policies in Canada have had unintended consequences for women and marginalized groups. Women are underrepresented in the energy sector, in both fossil fuels and renewables, and so initiatives for renewable energy and a green transition have simply recreated employment and income inequality for women and marginalized groups.⁴⁹ Climate policies and initiatives, in some cases, rely on women's unpaid work by adding or changing household duties, for which women are primarily responsible.⁵⁰

Although these uneven effects are stark, it is important we do not fall into the trap of viewing or portraying women and gender diverse people, especially those from racialized communities or those with disabilities, for example, as helpless or as solely victims of environmental crises.⁵¹ We must acknowledge the disproportionate effects, but also ensure that this understanding informs our advocacy and efforts to develop solutions. We must also amplify the voices of women sounding the alarm and building movements for change.

3. Applying a Gender-Based Analysis

As the previous section shows, incorporating a gender analysis—one that also looks at how gender interacts with other categories like race, class, or ability—illuminates the uneven impacts of environmental degradation. This allows us to more fully understand the extent of environmental and climate change.

Despite emerging research, though, there continue to be limited study and policy analysis of the specific gendered nature of environmental and climate change.⁵² There are gaps in the research, which in turn limit our understanding of these issues.⁵³ Scholars have identified a need for more feminist research and analysis on climate change impacts on women of historically marginalized groups, in Canada and globally, as well as on women’s labour, both paid and unpaid.⁵⁴

Gender-Based Analysis Adds Depth and Breadth to Research

There are many benefits to incorporating a gender lens in both research and policy-making. A recent Canada-focused report on women and climate change outlines the contributions that feminist and Indigenous worldviews bring to understanding climate change and developing strategies for climate action.⁵⁵ The Canadian government has committed to using Gender-Based Analysis Plus (GBA+), acknowledging the value of a gender lens to better analyze and develop policy.⁵⁶ Importantly, GBA+ applies a gender-based analysis that is intersectional, meaning it considers the ways in which gender interacts with other categories or systems of oppression, such as race, class, or ability.

To effectively employ a gender-based analysis, it is important to mainstream gender considerations, rather than use a tokenistic or add-on approach. *Gender mainstreaming* means considering the gender-based impacts of a law, policy, or program throughout all areas, including climate, employment, finance, and public services.⁵⁷

To support gender-based analysis, it is crucial to gather gender-disaggregated data.⁵⁸ We can learn more from information that is broken down by gender. Having better data, analysis, and policies that consider the gendered effects of environmental issues will also help to inform strategies to mitigate or prevent environmental issues and the gendered impacts themselves.

More Effective Initiatives

In addition to equity reasons, a gender analysis leads to more successful action on climate change. According to the World Health Organization, case studies show that incorporating a gender-based analysis in developing the measures to protect people and communities from climate change effects, such as environmental disasters, improves their effectiveness. Furthermore, “gender-sensitive assessments and gender-responsive interventions have the potential to enhance health and health equity and to provide more effective climate change mitigation and adaptation.”⁵⁹

3. Women's Involvement in Sustainability, Climate Action

In addition to incorporating gender considerations into how we conduct research or make decisions and policies, it is a must that women and gender diverse people be involved. All groups must be at the table; but it is particularly important that those groups most directly or greatly impacted by (environmental) issues be at the helm. This means that the voices of women and people of marginalized groups need to be not only heard but foregrounded in developing, implementing, and monitoring environmental policies and actions.⁶⁰ Think here of the slogan “nothing about us without us.”⁶¹

Despite the growing evidence of the gender-environment link, women's perspectives (and women themselves) have been excluded from discussions and policy-making related to environmental and climate change. Women face barriers to participating in these spaces because they are underrepresented in governments and in positions of power, and because of the structural inequities outlined above.⁶²

Women's representation has improved somewhat over time, but in bodies like the United Nations Framework Convention on Climate Change (UNFCCC), representation has been growing slowly and has varied among countries.⁶³ As a result, climate science, mitigation, and adaptation strategies have tended to be rooted in a Western, masculinized approach, emphasizing technological and market-based solutions, rather than structural change.⁶⁴

Although women continue to be underrepresented in positions of power, they are highly engaged in climate change discourse and a range of disciplines.⁶⁵ Studies in both the US and Europe have found that, in general, women are more concerned and knowledgeable about climate change than men are.⁶⁶

Crucial Roles for Women in Climate Change Responses

Women are also leading climate change responses on the ground. In Puerto Rico, following Hurricane Maria in 2017, it was women community leaders who took action to provide services, such as meals and safe homes for people fleeing domestic violence.⁶⁷ Following widespread flooding in the central US, it was primarily women community leaders who pressured the government to take action to mitigate global warming.⁶⁸

Women workers are also on the front lines as first responders. During extreme weather and natural disasters, emergency response and care are provided to the affected communities. For example, the health care system, where women make up a majority of workers, is crucial to emergency response and disaster mitigation.⁶⁹

Until recently, gender has been largely absent from climate policy discussions. It was feminist advocates and gender specialists who succeeded in getting it onto the agenda.⁷⁰ And there is now growing recognition that feminist perspectives have much to offer. They provide critiques of the status quo, along with insights for a way forward.⁷¹

Both climate experts and gender experts underline the need for policies that facilitate women's participation, leadership, and empowerment at all levels of government and

civil society.⁷² This means involving women and marginalized groups, in the environmental planning and policy-making process.⁷³ Doing so leads to positive outcomes for everyone.

Women Essential to Politics

There is evidence that women’s participation in politics leads to more responsive governments and more effective climate policies and projects.⁷⁴ When women are involved in decision-making about resource use and social investment, they are more likely than men to make decisions in the interest of children, families, and communities.⁷⁵

A study examining both the developed or Global North countries and the developing or Global South countries found that representation of women in elected government is positively correlated with land protection.⁷⁶ Parliaments with a larger proportion of women members are also associated with ratification of environmental treaties.⁷⁷

It is important that women and gender diverse people are represented particularly in positions of environmental leadership.⁷⁸ Women’s presence in positions of political authority is shown to be correlated with lower carbon footprints.⁷⁹ Although women climate leaders are increasingly facing misogynistic attacks and threats—online and in person—they remain active in Canada and worldwide in a range of roles, from politics to activism.⁸⁰

The Intergovernmental Panel on Climate Change (IPCC) has found that

the effectiveness of decision-making and governance is enhanced by the involvement of local stakeholders (particularly those most vulnerable to climate change including indigenous peoples and local communities, women, and the poor and marginalised) in the selection, evaluation, implementation and monitoring of policy instruments for land-based climate change adaptation and mitigation.⁸¹

The Global Gender and Climate Alliance provides training to government and civil society delegates on integrating a gender lens into climate-related initiatives and policy. It has proved to foster more gender-responsive climate policies at both national and international levels.⁸² According to the UN Development Programme (UNDP), strong “civic activism and gender equity are positively associated with a more robust record of environmental governance.”⁸³

Need Broad Application of Gender Equity and Human Rights

Related to this discussion is the need to advance gender equity and human rights more broadly. For example, government investment in anti-poverty programs, care work, health and education, training and capacity building, climate-resilient workplaces and infrastructure, and community-based women’s rights organizations and institutions will play an important role in mitigating broader economic inequalities based on gender.⁸⁴

To ensure that women and gender diverse people are involved in a meaningful way in sustainability efforts, we must address the systemic reasons for the gendered impacts

and inequities in the first place, not just resort to tokenistic representation or involvement. In other words, we need a “nuanced approach to assessing vulnerability that captures the multiple and intersecting social pressures . . . to ensure that policies, plans and actions are addressing the root causes of vulnerability and not simply ‘adding women’.”⁸⁵

4. Valuing Women’s Knowledge

Supporting women’s involvement is not only important for gender equity, there is also much that can be learned and benefited from in recognizing women’s knowledge and skills. As outlined above, women are often connected to natural resources, food systems, and caregiving, and so they possess much ecological knowledge. They directly observe local changes in the environment and lead adaptation responses.⁸⁶ Women’s local and/or traditional knowledge and skills, then, have much to offer context-specific solutions to environmental issues.⁸⁷

Sustainable Food Systems

For example, women may possess a great deal of knowledge, skill, and expertise in local and sustainable food systems. As producers, women farmers have long been playing an important role in fostering sustainable food systems, such as protecting the land and seeds, and promoting women’s say in their local food systems.⁸⁸ Studies show that improved gender equity contributes to stronger, more resilient agriculture and food systems, and women’s involvement improves food security.⁸⁹

Significance of Unpaid Work

Women contribute to environmental sustainability through both paid and unpaid work. For example, women’s unpaid work—as carers, supporters, and community members—plays a role in climate change adaptation.⁹⁰ As the care professions become increasingly important due to the health and other effects of climate change, care work must be recognized, valued, and appropriately supported. The UNDP argues that “environmental policies, programmes and finance . . . should incorporate and benefit from [women’s] know-how while supporting women in the face of today’s unprecedented environmental challenges.”⁹¹

Valuing Indigenous Women’s Knowledge

The role of Indigenous women, in particular, is worth highlighting. As outlined above, Indigenous communities, particularly women, are disproportionately affected by environmental and climate change. They are often the first to feel its effects, disproportionately so, and have led efforts for climate action and sustainability.⁹² In this context, their rights and sovereignty, as well as their knowledge, must be respected. Moreover, non-Indigenous people have much to learn and to benefit from.

Indigenous peoples have long been stewards and defenders of the land, water, forests, biodiversity, and food systems.⁹³ Indigenous women, in particular, have a great deal of

local and ecological knowledge. They occupy a unique cultural and spiritual role as water protectors.⁹⁴ They also play vital roles in their communities as leaders, knowledge holders, teachers, forest managers, and economic providers; yet, they often have fewer recognized rights.⁹⁵

Given this deep experiential knowledge, Indigenous women see first-hand the effects of environmental degradation and climate change. They have long observed the impact of environmental change on economic activities like harvesting food.⁹⁶ As a result, they have the appropriate expertise to help us understand these impacts, as well as shape strategies for mitigation and adaptation.⁹⁷

Climate scientists, too, have begun to recognize this value in Indigenous knowledge and practices. The IPCC argues that recognizing Indigenous land rights will play a key role in fostering sustainability. Returning control to Indigenous people, communities, and organizations, will enable them to make the necessary changes to adapt to and mitigate climate change.⁹⁸ For example, a significant portion of the world's carbon sinks are on Indigenous land, primarily in forests. Restoring and protecting Indigenous lands, therefore, will enable carbon storage and help guard against more destruction.⁹⁹

A coalition of Indigenous peoples and local communities from 42 countries has urged that

recognizing the rights of the world's Indigenous Peoples, local communities, and the women within these groups is a scalable climate solution, and that all actors should make us partners in climate protection efforts. Our traditional knowledge and sustainable stewardship of the world's lands and forests are key to reducing global emissions to limit the global temperature rise to 1.5 degrees by 2030. We have cared for our lands and forests—and the biodiversity they contain—for generations. With the right support we can continue to do so for generations to come.¹⁰⁰

Given their disproportionate experience of colonialism and environmental harms, but also their immense knowledge, Indigenous “women, girls, and gender diverse people need to be centred in conversations about environmental protection, climate change, and stewardship so that the rights and livelihoods of Indigenous people are advanced over the capital gains of governments and industries,”¹⁰¹ according to the NWAC.

Decolonizing Laws, Policies, and Programs

Beyond involving Indigenous peoples, it is important to decolonize environmental policy-making itself. Indigenous scholars have highlighted the need to decolonize laws and policies in Canada, particularly in the context of rapid climate change. They have found that most renewable energy policies and programs in Canada fail to acknowledge Indigenous rights or issues in either their content or their development.¹⁰² When they are recognized, it is often tokenistic. There are some positive examples, though.¹⁰³

To decolonize policy-making, Indigenous perspectives must be integral. It is essential “to develop and implement policy and programming in ways that substantively respect and enable Indigenous rights.”¹⁰⁴ This means respecting Indigenous people's

sovereignty. There are examples of existing projects in Canada where, after long-fought efforts, the rights and stewardship of Indigenous communities have been recognized and respected, empowering them to govern their traditional territories.¹⁰⁵

Viewed with a positive spin, today's environmental crises present an *opportunity* to foster systemic change. The transformation that is required should be used to build a society that is more sustainable, as well as just. This includes gender equity.¹⁰⁶ It must also address the ongoing legacy of colonialism and recognize Indigenous sovereignty:

The freedom to govern ourselves, leverage our traditional knowledge, and adapt to our changing circumstances is essential to realizing a more sustainable and climate-resilient future—particularly through the leadership of indigenous and community women.¹⁰⁷

5. Women at the Forefront

Despite their underrepresentation in positions of power and leadership, and the inequities they face, women are at the forefront of grassroots movements for change, and have long been leading the way in their communities. Indigenous women, in particular, have led movements for climate justice, land and water justice, and gender justice, in both local and global spheres.¹⁰⁸ This section highlights some examples.

Women and Food Sovereignty

Women, including Indigenous women, have been active in the movement for food sovereignty, or the right of peoples and communities to control their food systems. Indeed, women's rights is a key pillar: the democratic process of determining what a food system should look like requires women's involvement and leadership.¹⁰⁹ Women have been leading advocates for sustainability as well as for health considerations.¹¹⁰

Women are also at the forefront of identifying sustainable solutions. For example, in India, women farmers have developed a rainwater management technique that prevents crops from becoming waterlogged during monsoons, while irrigating crops during dry seasons. As the ones who build, install, and maintain these units, women farmers are not only leaders in climate adaptation but they have also experienced increased social status and participation in local governance as a result.¹¹¹

Women and Disaster Response

Women have also been agents of change in disaster response.¹¹² In Vietnam, a women-led project promoted the leadership of women in responding to disasters and reducing risks. In addition to capacity building, the program influenced government policy that led to better representation of women in the decision-making bodies for disaster response and prevention. A similar initiative in Bangladesh played a part in social and cultural change, namely bringing about a shift in women's perceived role "from victims to vital actors in restoring their households and communities during and after disasters."¹¹³

Women and Deforestation

Similarly, a coalition of women leaders in the Democratic Republic of the Congo developed an advocacy tool that has strengthened the involvement and decision-making power of women in forest-management policies. It has empowered local women, and in particular, Indigenous women. According to local reports, their active participation in forest governance has played a key role in preventing deforestation.¹¹⁴

The Young Climate Justice Warriors

Young women, especially Indigenous and racialized young women, have been at the helm of the climate justice movement. Capturing the world's attention, some are now recognizable by their first names—Autumn, Isra, Greta, Alexandria, and Xiye.¹¹⁵

Known as a water warrior, Autumn Peltier is a young Indigenous activist from Wiikwemkoong First Nation who fights for water and climate justice in Canada and globally. She advocates for the protection of water and for clean drinking water.¹¹⁶

At age 12, Peltier first made national news when she delivered an emotional message to Prime Minister Trudeau about his government's "choices" and raised concerns about the impact of pipelines on water.¹¹⁷ Peltier was named Chief Water Commissioner of the Anishinabek Nation when she was only 14 years old. She garnered international attention when she spoke at the UN World Water Day in March 2018 at the age of 13, and again at the UN Global Landscapes Forum event, Restore the Earth, in September 2019.¹¹⁸

Despite the continued barriers, there are many inspiring examples of women as leaders and as agents of change.¹¹⁹ They continue to be powerful voices for environmental sustainability, climate action, and economic and social justice.

6. Conclusion

Environmental and climate change are not gender neutral. The acute effects on women and gender diverse people, especially those of historically marginalized communities, are staggering. Although it may be disheartening, this information must inspire us to act.

While there is mounting experiential and documented evidence of the disproportionate effects, this trend is still understudied. When gender perspectives and analyses are included in policy discussions and processes, they are too often surface level or sidelined. They are, however, garnering attention; thus, it is important to amplify feminist analyses and the benefits they bring.¹²⁰

Evidently, there is much to be gained from integrating gender perspectives, and women and gender diverse people themselves, into environmental policies and initiatives. And so, we can see environmental and climate change as an opportunity to advance gender equity, as well as racial justice, disability justice, economic justice, and reconciliation, in

addition to ecological sustainability. Indeed, these social and economic justice goals must be integral to tackling environmental issues and climate change.

Moreover, there are numerous examples of women identifying solutions, contributing their expertise, and leading efforts for change. They are cause for hopefulness. What we need are governments, organizations, and movement leaders to seize upon this opportunity to empower women and their communities to foster change.

Endnotes

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- Canadian Union of Brewery and General Workers (CUBGW)
- New Brunswick Union of Public and Private Employees (NBU)
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