

Invest in Women to Tackle Climate Change and Conserve the Environment

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OVERVIEW

Climate change and environmental degradation represent a great threat to poverty reduction and to achieving the SDGs. They impact health, food security, nutrition, production, and people's earnings. Yet given their traditional roles in agricultural production, and as the procurers of water, cooking fuel, and other household resources, women are not only well suited to find solutions to prevent further degradation and adapt to the changing climate – they have a vested interest in doing so. The first step towards tackling the challenges of climate change is empowering women to safeguard the environment. This brief examines some useful strategies to promote the inclusion of women in climate change mitigation, adaptation, and negotiations – and to have their voices be heard.

SECTION 1: FRAMING THE ISSUE

Climate change is increasing temperatures and affecting weather patterns, resulting in environmental degradation and heightened competition for natural resources.¹ Impediments to agricultural production caused by environmental hazards such as flooding, droughts, and landslides in turn heighten community vulnerability, decrease food security, force students to drop out of school, and increase poverty rates.²

While climate change impacts everyone, girls and women bear the greatest burden, are most vulnerable to environmental degradation,³ and are disproportionately affected by climate change compared to men for a variety of reasons.⁴ Women are responsible for 60 to 80% of food production in the global south, and thus are more impacted by any strains on agricultural production.⁵ During periods of drought and erratic rainfall, women must work harder to secure food and water for their families.⁶ This puts added pressure on the girls within households, who may be forced to drop out of school to help their mothers manage the heavier burden.⁷ In some parts of Africa, girls and women spend up to eight hours per day collecting water.⁸ This undermines productivity and fuels a cycle of poverty that limits the economic and social capital that could be generated to combat climate change.⁹

Of the 60 million people displaced around the world, it is estimated that 26 million of those people are climate displaced.^{10,11} Each year, weather related disasters due to climate change are estimated to displace 1 million people.¹²

Recognizing the burdens environmental challenges impose on them, women have a key role to play when it comes to climate change mitigation and adaptation. Yet women experience barriers – social, political, and economic – that restrict their ability to take an active seat at the table in climate change negotiations, further limiting their coping capabilities when it comes to mitigating the effects of climate change.^{13,14} Women must be recognized as vital agents of change so that their needs and their contributions will be a part of the solution.

The United Nations has recently prioritized safeguarding the rights of people whose lives are most impacted by climate change, recognizing the direct role the environment plays in shaping the economic and social rights of so many individuals.¹⁵ Yet despite the steadily growing body of evidence that links climate change to a rise in gender inequality, the vulnerability of women, and obstacles to sustainable development, the United Nations Framework Convention on Climate Change (UNFCCC) largely neglected to outline any gender dimensions in its early years.¹⁶ That began to change in 2007 with the release of the UNFCCC Bali Action Plan and the establishment of the Global Gender and Climate Alliance (GGCA).¹⁷ Accordingly, gender issues and the critical role women play in addressing climate change are now gaining traction in international negotiations.¹⁸

➔ For more, please reference the brief focused on respecting, protecting, and fulfilling sexual health and rights.



Empowering women to respond to the challenges posed by climate change is linked to the achievement of several of the Sustainable Development Goals (SDGs) and targets, including:

SDG Goal 1: End poverty in all its forms everywhere

- **1.5** By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social, and environmental shocks and disasters

SDG Goal 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture

- **2.4** By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding, and other disasters, and that progressively improve land and soil quality

SDG Goal 3: Ensure healthy lives and promote wellbeing for all at all ages

- **3.7** By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information, and education, and the integration of reproductive health into national strategies and programmes
- **3.9** By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution and contamination and affordable essential medicines and vaccines for all



This trend needs to gain ground in the era of the SDGs. Women's leadership and political participation is a crucial element to any discussions on climate change. They must be at the table during all stages of decision-making that seeks to find solutions to current and future environmental realities. Yet at the local, regional, national, and international levels, women are still fighting for a leadership role in the climate change dialogue and a place at the negotiation tables.

SECTION 2: SOLUTIONS AND INTERVENTIONS

The evidence-based solutions presented below are underutilized, but they have vast potential to ensure that women claim their roles in all efforts to conserve the environment and tackle climate change:

- Include women within all climate change mitigation and adaptation efforts
- Improve and enforce secure land rights and inheritance rights for women
- Promote and fund women-led and women-focused sustainable food production strategies and resource management activities
- Integrate environmental conservation and climate change within women's health programming
- Invest in and promote technologies that enhance renewable and clean energy sources

➔ *For more, please reference the brief focused on accelerating access to resources –land, clean energy, water and sanitation.*

Include Women within All Climate Change Mitigation and Adaptation Efforts

Women have a unique understanding of the impact climate change is having on the productive assets they depend upon. This must be acknowledged, valued, and incorporated into the development of sustainable approaches to climate change adaptation and mitigation.

Women often show more concern for the environment by supporting pro-environmental policies and leaders. Increasing their influence in politics and decision-making forums, therefore, could contribute towards environmental goals.¹⁹ Yet while progress has been made in the last five years boosting women's representation in political and decision-making bodies, the gender gap remains significant; as of 2015, only 22% of parliamentarians were women.²⁰

➔ *For more, please reference the brief focused on strengthening women's political participation and decision-making power.*

To adapt to the negative impacts of climate change, women must have a voice and be engaged in leadership and decision-making roles — not only by assuming political office, but by participating in the planning and implementation of sustainable natural resource management practices, as well as climate mitigation and adaptation interventions. And they must share in the fruits of these efforts. Current research has shown that when women are in decision-making and leadership roles there is a positive impact on sustainable natural resource management and climate adaptation activities.²¹ Since adapting to a changing climate is an inescapable reality — even if emissions are halted today — advocacy and decision-making efforts must also include the voices of adolescents and youth, as they have an essential role to play in future efforts related to climate mitigation and adaptation.²²

Case Study: The Africa Adaptation Program (AAP)

*The Africa Adaptation Program (AAP) addressed women's roles in climate change in Nigeria by boosting their skills and knowledge with regard to climate change impacts, policy, financing, and negotiations. They focused on developing women's leadership in key government ministries as it relates to climate change. Many of the countries involved in the AAP program from 2008-2012 worked to revise budgeting processes so that they included funding focused specifically on the gender-specific needs of many women regarding climate change mitigation and adaptation.*²³

Improve and Enforce Secure Land Rights and Inheritance Rights for Women

Land is an important resource for women. It can improve their ability to access capital, derive income, and protect household food security, and it offers them security in times of hardship. Research shows that when women own land they not only have more secure livelihoods, but they are less likely to experience domestic violence and have greater bargaining power within the household.²⁴ Yet land tenure systems often favor men through laws and practices that dictate unequal ownership and control.²⁵ In order to address the challenges imposed by climate change — and to find effective, sustainable solutions — it is critical to secure land and tenure rights for women. For example, through the provision of legal land rights, poor and marginalized populations are able to access new funding sources and opportunities, which can promote efforts to curb climate change.²⁶ Enforceable tenure rights will improve the management of natural resources while boosting the economic status of women.²⁷

➔ *For more, please reference the brief focused on boosting women's economic empowerment.*



SDG Goal 5: Achieve gender equality and empower all women and girls

- **5.5** Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic, and public life
- **5.a** Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance, and natural resources, in accordance with national laws
- **5.b** Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women

SDG 11: Make cities and human settlements inclusive, safe, resilient, and sustainable

- **11.6** By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management
- **11.7** By 2030, provide universal access to safe, inclusive, and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities

SDG 13: Take urgent action to combat climate change and its impacts

- **13.1** Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
- **13.2** Integrate climate change measures into national policies, strategies, and planning
- **13.3** Improve education, awareness-raising, and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning



Promote and Fund Women-led and Women-focused Sustainable Food Production Strategies and Resource Management Activities

As women are often responsible for collecting fuel, as well as growing and preparing food, it is important that their expertise in resource management be recognized and valued. Much of the natural resource base in rural areas is located on common lands; and often times, stemming from weak tenure rights, women can be barred from making decisions concerning the use and management of these resources.²⁸ For example, women produce between 45-80% of the world's food, but have less ownership of land compared to men.²⁹ Despite this legal barrier, as the key providers of food at the household level, women frequently have greater understanding of the impact climate change is having on the local environment. They are often the knowledge-keepers of traditional and sustainable methods of natural resource management; when applied, these methods result in more resilient communities and improved livelihoods.³⁰ Thus, it is critical that any discussion on climate change mitigation, impacts, and adaptation not only include women, but give them an active decision-making role in the process and implementation.

Women who are dependent on the natural environment for food and income constitute 60% of the world's poorest and most vulnerable people.³¹ On average in the developing world, women constitute about 43% of the agricultural labor force³² and are thus extremely vulnerable to failing agricultural production.³³ Further, a drop in production exacerbates vulnerabilities, as women do not have the same access to financial and other resources as men do to cope with the impacts of climate induced natural resource depletion.³⁴ The agricultural sector is also one of the leading emitters of greenhouse gases.³⁵ Therefore it is important for women working in agriculture be involved with climate change mitigation. Once engaged, these women can incorporate Climate-Smart Agricultural (CSA) practices and sustainable farming into their daily lives, thus increasing food security for themselves and their families. Some of these practices include water management, terracing, composting, incorporating high-yielding and stress-tolerant varieties of crops, and pasture management.³⁶

➔ For more, please reference the brief focused on boosting women's economic empowerment.

Indigenous women – who often play vital roles as stewards of nature – are particularly impacted by the effects of climate change.³⁷ In most cases, indigenous women are responsible for their families' food security and survive off of the land; as such, they feel the impacts of climate change on a daily basis.³⁸ In order to protect biodiversity and reduce degradation of the environment, indigenous women need to take a leadership role to mitigate the devastating effects of climate change and facilitate climate change adaptation efforts.³⁹

Case Study: Climate-Smart Agriculture in Kenya

In 2011, a pilot project in Kenya focusing on female small-scale farmers and dairy farmers incorporated Climate-Smart Agriculture (CSA) as a means of improving yields, income, and wellbeing. Women in the Kamotony region, who were concerned about their economic stability, were trained in CSA practices and decided collectively to start a tree nursery. This tree nursery provided a new source of income from the sale of seedlings and tree cuttings; the women were able to invest in dairy production with the profits. By applying the CSA techniques, such as feed storage and fodder production, the women were able to increase dairy production. The women now report that their household food security, nutrition, and income have increased due to CSA practices. They also are able to fund their children's education and healthcare without the economic difficulty that they previously faced.⁴⁰

Case study: Crop Diversification in Nicaragua

With resources from a community fund, local women in Jinotega, Nicaragua conducted a risk mapping exercise to identify new solutions for improving food production. They then received training, seeds, and tools, and collectively decided how the agricultural land could be used differently. After five years the number of diversified plots in the community quadrupled, and crop production for household use increased five-fold. Within the same period, each farmer's annual net earnings increased roughly six-fold.⁴¹

Case study: Applying Local Knowledge to Crop Production

A UN-funded project in the high plains of Bolivia relied upon traditional community knowledge of weather to improve crop production and avert risks imposed by climate change. The emphasis on applying women's knowledge of the environment – with regard to proper crop and seed storage, for example – was key to the project's success. As a result of this gender-sensitive collaboration, more than 100 context-specific agricultural technologies and practices were either introduced or re-introduced to the community to lessen the potential effects of climate change.⁴²

Integrate Environmental Conservation and Climate Change within Women's Health Programming

Countries with the highest unmet need for contraception also tend to have the fastest growing populations, the highest projected declines in agricultural production, and the greatest vulnerability to climate change.⁴³ Without boosting investments to meet the demand for sexual and reproductive health rights, these nations could erase important gains made in environmental and biodiversity conservation, impede adaptation for climate change, and roll back recent improvements in health, education, and gender equality.



International agreements and strategies related to this brief:

- Convention on Biological Diversity (1992)
- Programme of Action of the International Conference on Population and Development (1994)
- The Beijing Declaration and Platform for Action (1995)
- The World Summit on Sustainable Development (2002)
- The Convention to Combat Desertification (2002)
- FCCC Bali Action Plan (2007)
- UN Human Rights and Climate Change Resolution 7/23 (2008)
- The 2005 World Summit
- Commission on the Status of Women (2008)
- The United Nations Framework Convention on Climate Change (2015)
- The Rio Declaration (2015)
- Sustainable Development Goals (2015-2030)



One promising approach is the population, health, and environment (PHE) strategy, which involves linking efforts to improve environment and climate efforts with women's health. Several such projects have shown that the integrated nature of population, health, and environment — particularly the emphasis on family planning — has increased women's participation in natural resource management.⁴⁴ For example, the *Sustaining Partnerships to Enhance Rural Enterprise and Agribusiness Development* (SPREAD) project in Rwanda incorporated technical assistance to communities who make their livelihoods from the coffee sector. This approach also included an integrated health component which incorporated health education aimed at reaching farmers. Preliminary reports pointed to the project's impact on greater support and demand for family planning and its links to family-wide health and economic benefits.⁴⁵ And a 2015 synthesis of multiple assessments of PHE programming suggests that, given the clear linkages and significant potential, more efforts are needed to rigorously document the impact of dually addressing family planning services and climate change adaptation.⁴⁶

Case Study: Blue Ventures in Madagascar

*Blue Ventures has been working in Madagascar to incorporate sexual and reproductive health services with sustainable coastal livelihood and resource management initiatives. This integrated approach addresses the interconnected challenges of poor health, unmet family planning needs, environmental degradation, and food insecurity in a holistic way. It enables communities to manage their resources sustainably, both now and for the future. These approaches enable couples to better provide for their families by decreasing crude birth rates, improving food security, and empowering women to play an impactful role in resource management. Since Blue Ventures began in 2007, it is estimated that over 1,125 unintended pregnancies have been averted within a population of 20,000.*⁴⁷

Invest In and Promote Technologies That Enhance Renewable and Clean Energy Sources

Close to 2.9 billion people in the developing world still use solid fuels to heat and cook, which is directly linked to emissions that cause climate change.⁴⁸ Such polluting fuels include wood, coal, and charcoal, and the negative health effects of their use are dire.⁴⁹ In 2012, 4.3 million people died prematurely in low and middle-income countries from household air pollution.⁵⁰ The economic, health, and environmental cost of inaction around cooking with solid fuels and a lack of access to modern cooking fuels is a staggering \$123 billion per year.⁵¹

Around the world, women are more adversely affected by energy poverty — the cumulative impact of higher health and safety risks stemming from inefficient lighting, household air pollution, and unclean cooking fuels.⁵² Yet if women had the power to make energy choices — including the purchase and use of clean energy sources such as cookstoves and high-efficiency fuels — it would help turn the tide of climate change.⁵³

Currently women make up only 20% of the renewable energy sector work force.⁵⁴ Bringing them into the workforce is a win-win. Female entrepreneurs would then have access to consumers and could promote new solutions, innovative technologies, and clean energy products.⁵⁵ This enables household consumers to choose safe, clean energy. Gender inclusivity within the energy sector is crucial to driving climate mitigation and adaptation.

Case Study: Solar Sisters Harnesses the Power of Women to Promote Clean Energy

*By creating a woman-centered sales network that brings clean energy technology to rural Africa, Solar Sisters is working to eradicate energy poverty and economically empower women through a direct sales network to sell solar energy products. Solar Sisters currently works in Nigeria, Uganda, and Tanzania, and their programming boasts over 2,000 female entrepreneurs; their efforts to promote clean energy are reaching 300,000 beneficiaries.*⁵⁶

SECTION 3: THE BENEFITS OF INVESTMENT

In order to mitigate the effects of climate change, women's involvement in decision-making is critical. For example, one study found that countries with higher female parliamentary representation are more prone to ratify international environmental treaties,⁵⁷ underscoring the reality that women are key changemakers in the fight for a clean, healthy world.

Energy deficiencies and related economic challenges will increase over the next twenty years unless the international community empowers women and includes them in climate change mitigation and adaptation efforts.⁵⁸ The social and environmental determinants of health — clean air, safe drinking water, sufficient food, and secure shelter — are directly affected by climate change.⁵⁹ The toll climate change takes and can continue to exact on human life alone is staggering. It is anticipated that poor health outcomes related to climate change will claim approximately 250,000 lives every year between 2030 and 2050.⁶⁰ These deaths will stem from malnutrition, malaria, diarrhea, and heat stress.⁶¹

Yet current research suggests there is a correlation between women's involvement in climate change mitigation and adaption and the reduction of greenhouse gases. For example, the Environment and Gender Index reports that in 2012 the 55 parties that include gender in their 2015 Intended Nationally Determined Contributions or INDCs accounted for only 17% of greenhouse gases emitted, but 83% of emissions were from other parties that do not specifically mention gender in their INDCs.⁶² This division highlights the importance of understanding gender-climate linkages and the need for gender-responsive climate action.⁶³ A United Nations Food and Agriculture study also found that if women farmers were given the same agricultural inputs, tools, and financial resources as men, their agricultural yields would increase by 20 to 30%; national agricultural production could rise by up to 4%; and the number of malnourished people could drop by between 12 and 17%.⁶⁴ Further evidence suggests that when women have secure rights and land access, they utilize resources sustainably.⁶⁵

SECTION 4 - CALLS TO ACTION

It stands to reason that the people who suffer the most from the impacts of climate change should not only have a say in global efforts to mitigate its effects, but also claim a leadership role. Women bear the greatest impact of climate change — as gatherers of shrinking resources, food producers, cooks, and caregivers. But their connection to the land makes them not only more vulnerable, but also more valuable in terms of finding solutions to climate change. In order to power progress for all, many different constituents must work together — governments, civil society, academia, media, affected populations, the United Nations, and the private sector—to take the following actions for girls and women:

- Ensure female involvement, including indigenous women and grassroots groups, in climate change negotiations and resource management. *(Most relevant for: governments, civil society, academia, media, affected populations, the United Nations, and the private sector)*
- Strengthen opportunities for women's participation in climate change mitigation and adaptation processes. *(Most relevant for: civil society, governments, and the private sector)*



- Develop policies to address climate change that recognize gender-sensitive impacts, provide women with access to resources, and give them opportunities to participate in mitigation and adaptation processes.
(Most relevant for: governments, civil society, the United Nations, and the private sector)
- Ensure key decision-makers understand how environmental degradation and climate change affect women differently than men.
(Most relevant for: governments, civil society, academia, media, affected populations, the United Nations, and the private sector)
- Invest in technologies and initiatives to enhance renewable energy sources that reflect women's knowledge, needs, and roles, while incorporating indigenous expertise and traditional practices.
(Most relevant for: governments and the private sector)
- Integrate environmental conservation strategies within women's health programming.
(Most relevant for: civil society, governments, and NGOs)
- Include women in the creation of policies and strategies around environmental protection; building resilience; securing land and inheritance rights, food insecurity, and resources; and ending energy poverty.
(Most relevant for: governments, civil society, the United Nations, and the private sector)

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