

Women-Led Climate Adaptation

Investing in Women's Leadership for Climate Resilience

Vital Voices Global Partnership • Policy Brief

KEY MESSAGES

- Women are disproportionately exposed to climate impacts — not by nature, but through unequal access to land, finance, information, and decision-making. Where women and men hold equal rights, these disparities narrow sharply.
- Where women lead adaptation, communities tend to recover faster and manage resources more sustainably. The international legal architecture — CEDAW, Article 7 of the Paris Agreement, and the Sendai Framework — already mandates their inclusion.
- The missing ingredient is not the mandate but the investment, access, and recognition that let women-led solutions scale.
- Closing the gender gap in agrifood systems alone could raise global GDP by roughly 1% and reduce the number of food-insecure people by about 45 million (FAO, 2023).

Introduction

Climate change is deepening existing inequalities. Women often face disproportionate impacts because of unequal access to resources, land rights, finance, decision-making, and public services — yet they are also leading some of the most effective adaptation efforts in their communities. Recognizing and supporting that leadership is essential to effective and inclusive climate action. Organized around the seven priority sectors of the UAE Framework for Global Climate Resilience and the Global Goal on Adaptation, this brief sets out the challenge, the evidence for women's leadership, and concrete recommendations for governments, donors, and development partners.

“When women lead, resilience follows. Communities recover faster. Resources are managed more sustainably. Peace holds longer.”

— Alyse Nelson, President & CEO, Vital Voices Global Partnership

The Challenge

Nearly 3.6 billion people — almost half of humanity — are already highly vulnerable to climate impacts such as drought, flood, storms, and heat stress (IPCC, AR6). Women, particularly in the Global South and in Indigenous and rural communities, bear disproportionate burdens: they are more likely to depend on climate-sensitive livelihoods, less likely to own land or other protective assets, and more constrained by caregiving responsibilities and restricted mobility during disasters. These disparities are structural, not innate — where women and men enjoy equal rights and resources, differences in vulnerability shrink markedly (Neumayer & Plümper, 2007).

Women also remain largely excluded from the decisions that shape adaptation. Only about one-third of national energy frameworks incorporate any gender considerations, and fewer than 27% of nominated authors for the IPCC report on 1.5°C warming were women. The stakes of inaction are high: under a worst-

case scenario, up to 158 million more women and girls could fall into extreme poverty by 2050 — 16 million more than men and boys, with nearly half in sub-Saharan Africa (UN Women/UNDP projection).

Why Women's Leadership Strengthens Resilience

Evidence consistently shows that when women participate in adaptation planning, communities recover faster and prepare more effectively. Higher women's representation is associated with lower conflict, more durable peace agreements, and less corruption — factors that matter as climate-induced conflict risks mount and stewardship of climate finance becomes more urgent. Women also tend to be more risk-aware and more willing to change household practices in response to climate stress.

A growing body of research points the same way. Data from 169 countries link women's political empowerment to more robust climate policy; a field experiment across Indonesia, Peru, and Tanzania found that women-inclusive forest governance — through quotas requiring at least half female participation — made mitigation more effective; and 2024 research found that stronger land-tenure security for women is associated with greater investment in soil conservation and tree planting in Rwanda and Ethiopia, and wider adoption of sustainable forest and water management in Nepal and India. Several studies note that these effects strengthen once women's representation crosses roughly 30%.

The economic case is equally clear. FAO estimates that ending the gender gap in farm productivity and the wage gap in food systems would raise global GDP by roughly 1% — nearly \$1 trillion — while cutting the number of food-insecure people by about 45 million (FAO, 2023). Investment in women's leadership is therefore not a cost to resilience but a driver of it: gains in food security, disaster recovery, resource stewardship, and social cohesion compound across the communities where women lead.

Adaptation Across the Seven Priority Sectors

Water and sanitation. In about two out of three households, women and girls are the primary water collectors, spending an estimated 250 million hours a day on the task in the countries with data (UN-Water, 2024) — time lost to education, income, and community participation, with added health and safety risks on long or unsafe journeys. Women are meeting this challenge directly: restoring dried ponds and check dams in India's Bundelkhand region, building soil- and water-conservation structures in Ethiopia, and installing solar-powered wells in salinity-affected coastal Bangladesh. International law reinforces their role — CEDAW Article 14 guarantees rural women water and sanitation, and the Dublin Principles affirm women's central part in water governance.

Food and agriculture. Women are central to agrifood systems but typically manage smaller, rain-fed plots with less access to irrigation, fertilizer, and drought-resistant seeds, so climate shocks hit their yields hardest. Where women hold secure land rights, they invest more in soil fertility and productivity rises. Across the Global South, women run seed banks that preserve climate-resilient varieties, cultivate floating gardens through monsoon floods, and restore degraded soils through agroecology — knowledge that CEDAW and the FAO Voluntary Guidelines oblige states to protect and resource.

Health. Climate change is a health-risk multiplier: heat exposure raises the risk of pregnancy complications, shifting rainfall expands malaria, and reliance on solid cooking fuels exposes women to indoor air pollution. A meta-analysis of 130 studies found women more affected than men in most cases. When formal systems fail, women act as frontline responders — sharing warnings, sustaining care, and keeping households connected to services — a role the WHO Framework for Climate-Resilient Health Systems and CEDAW General Recommendation No. 37 call on states to support.

Ecosystems and biodiversity. Women translate ecological knowledge into conservation that also sustains livelihoods — from Kenya’s Green Belt Movement, which mobilized rural women to reforest degraded land, to mangrove cooperatives and Indigenous seed-keeper networks. Research indicates that where women share in forest governance, forests see less illegal exploitation and stronger regeneration. The Convention on Biological Diversity’s Gender Plan of Action and Target 23 now commits governments to women’s equal rights and participation in biodiversity decisions.

Infrastructure and cities. With 2.5 billion people expected to join the urban population by 2050, women’s inclusion in disaster planning yields safer, more practical infrastructure — shelters with privacy and lighting, workable evacuation routes, and services that reflect caregiving realities. Yet women hold only about a third of renewable-energy jobs and 35% of STEM degrees, and risk exclusion from an estimated 65 million green jobs projected by 2030. The Sendai Framework and Paris Agreement Article 7.5 calls for gender-responsive, participatory planning to close this gap.

Livelihoods and poverty reduction. Climate change acts as a poverty multiplier for women concentrated in informal and climate-sensitive work, with less access to insurance, credit, and land titles to recover after disasters. Women-led cooperatives, savings groups, and clean-energy micro-enterprises reduce risk and diversify income — most effectively when paired with accessible finance, market access, and reliable power. Realizing this potential requires programs that are locally led, scalable, and designed to remove gender barriers to land, finance, and training.

Cultural heritage. As custodians of seeds, traditional medicine, crafts, and oral knowledge, women preserve practices that double as adaptation strategies. They protect sacred forests that function as conservation areas, save drought-tolerant seeds, and translate technical climate information into local songs, dances, and “climate theatre” that spread early warnings. The Paris Agreement, the Sendai Framework, and UNESCO’s climate policies all recognize such traditional knowledge as a source of resilience to be supported rather than lost.

Women Leading on the Ground

Uganda — Namuwonge Zaitun, Afro Lube Limited. A social enterprise recycling used engine oil into affordable lubricants, preventing contamination of rivers and groundwater while engaging women in environmental stewardship and local decision-making.

Kenya — Doreen Irungu, Ustawi Afrika. Works with women farmers in arid and semi-arid lands to revive drought-resistant indigenous seeds, restore soil, and harvest water through zai pits and sand dams, strengthening food security and household nutrition.

Caribbean — Nicole Joseph-Chin, Infrastructure of Care. Advocates for investment in resilient healthcare, recovery centers, and shelters — an “infrastructure of care” — recognizing the caregiving burden women carry during and after recurring hurricanes.

Northern Nigeria — Habiba Ali, Sosai Renewable Energies. Powers women’s food-processing and agro-enterprises with reliable clean energy, turning climate resilience into economic independence where informal livelihoods are most exposed to climate shocks.

Philippines and Pakistan — Joana Bacallo, SEEDS. Advances gender-responsive water, sanitation, and education systems in Indigenous and displaced communities — improving school WASH facilities and strengthening women’s voice in community water committees.

Argentina and coastal Namibia — Samantha Deane, Fundación Siwok / Kelp Forest Foundation. Works across forest and marine ecosystems, supporting Indigenous Wichí women's access to traditional plants and fiber and elevating the undervalued contributions of women in coastal fishing communities.

The Policy Framework Already Exists

Women's leadership in climate adaptation is not only effective — it is mandated. CEDAW and its General Recommendation No. 37 (2018) require states to address the gendered dimensions of climate change and disasters. Article 7(5) of the Paris Agreement calls for adaptation that is gender-responsive, participatory, and guided by traditional and Indigenous knowledge. The Sendai Framework and its 2024 Gender Action Plan make women's participation central to disaster risk reduction and recovery. And the UAE Framework for Global Climate Resilience, adopted at COP28, anchors the Global Goal on Adaptation in seven sectors where women's rights and leadership are reinforced by international law. The gap lies in implementation, financing, and recognition — not in the mandate.

Structural Barriers to Overcome

Realizing women's potential as adaptation leaders means dismantling the barriers that hold it back. These are mutually reinforcing and appear across every sector:

- Insecure land tenure and limited property rights, which weaken women's ability to invest in long-term resilience.
- Restricted access to credit, climate finance, technology, and productive inputs.
- Exclusion from local governance, adaptation planning, and disaster recovery decisions.
- The disproportionate burden of unpaid care and domestic work, which intensifies during climate emergencies.
- Underrepresentation in STEM fields, climate science, and international negotiations, and persistent gaps in sex-disaggregated data.

The recommendations below target these barriers directly, translating existing legal commitments into practical action.

Recommendations

1. **Strengthen women's leadership in climate governance.** Embed women's knowledge and priorities across adaptation policy through inclusive institutions, participatory mechanisms, and accountability systems, and protect women environmental and human rights defenders.
2. **Address structural barriers to adaptation.** Secure women's rights to land, water, and natural resources, and invest in the care and service infrastructure — childcare, health, water, energy — that enables women to participate.
3. **Expand access to finance, technology, and resources.** Prioritize direct funding for women-led organizations, cooperatives, and locally led adaptation, and align climate investment with gender-equality goals and the Global Goal on Adaptation.
4. **Improve data, knowledge, and accountability.** Strengthen sex-disaggregated and intersectional data to guide planning, and integrate Indigenous, traditional, and local ecological knowledge into climate strategy.

5. **Transform social norms and expand inclusive leadership.** Support women's access to climate-resilient livelihoods, green jobs, and leadership, and engage men and boys as partners in gender-equitable climate action.

Conclusion

If the world is serious about adapting to a warming planet, it must be equally serious about investing in the women already doing the work. The legal and policy architecture exists; what remains is to supply the resources, rights, and recognition that let women-led solutions grow from individual communities into systemic change.