



BRIEF

## WOMEN'S ECONOMIC EMPOWERMENT:

# Women's Enterprises in a Changing Climate: Barriers and Opportunities

### INTRODUCTION

Globally, climate change heralds resource shortages, rising sea levels, increasingly erratic weather patterns and less dependable growing seasons, which promise to impact virtually every facet of our lives. The World Health Organization predicts that a quarter of a million people will die between 2030 and 2050 from climate-related causes, including malnutrition, malaria, diarrhea and heat stress.<sup>1</sup> Climate change will drastically affect livelihoods and drive internal and international migration, displacing households and communities. While climate shocks are a universal threat, women will be affected differently, and, at least in some respects, more severely than men. Women are more likely to be employed in climate-vulnerable sectors; are primarily responsible for household and care-related chores using water and fuelwood; and are often more

dependent on common property ecosystems for food and grazing<sup>2</sup> that will be affected by resource shortages and unequal decision-making patterns and access rights.<sup>3,4</sup> They may be disproportionately affected by other harmful gender norms including gender-based violence that will inhibit adaptations to a changing climate.<sup>5</sup>

On the other hand, women and their unique knowledge and experience—including their strong links to nature-based production and management—represent a key tool for addressing climate change and developing relevant and successful strategies for mitigation and adaptation. Female entrepreneurship can be leveraged to develop and implement these strategies, and entrepreneurship itself gains importance as traditionally female-led sectors are further threatened by climate change.

This brief is one of a series of documents that draw from research and data from the Global Entrepreneurship Monitor, the World Bank Enterprise Surveys and other global evidence to understand the realities facing female entrepreneurs. Each of these briefs explores a particular facet of or barrier to female business-owners and examines how those barriers are directly addressed or accounted for in programming by prominent initiatives such as the [Women Entrepreneurs Finance Initiative](#) and the [Women Global Development and Prosperity Initiative](#). The nexus between climate change, entrepreneurship and gender remains understudied. This brief represents a starting point for future investigation.

## CLIMATE CHANGE DISPROPORTIONATELY AFFECTS WOMEN

Climate change, and its long-term impacts, will affect women and men differently, with women to a large degree bearing the lion's share of the burden. This is a product of both the industries into which women and men segregate and the ways in which women and men interact with resources outside of the labor force, which

govern individuals' and communities' ability to cope with and adapt to climate change.

### Within the labor force

Women more than men tend to work in agriculture, forestry, healthcare, tourism and other sectors that will be most heavily impacted by climate change.<sup>5</sup> Women are the primary producers of food in developing countries, comprising two-thirds of the global agricultural labor force (and up to 90 percent in some sub-Saharan African countries),<sup>7</sup> particularly on subsistence and smallholder farms. Women may depend disproportionately on public goods and ecosystem products and services for their enterprises and livelihood activities.<sup>8,9</sup>

Unpredictable weather patterns and growing scarcity of water and other agricultural inputs threaten agricultural livelihoods across the globe. A survey of nearly 600 women in southwestern Nigeria revealed that over 90 percent saw significant impacts on their livelihoods of reduced soil fertility and altered weather patterns caused by climate change.<sup>10</sup>



Water scarcity and water pollution are viewed by sustainability experts as two of the top sustainability challenges facing the world today, with **84%** and **79%** of experts listing them as “urgent” challenges, respectively.<sup>11</sup>

Women tend to work on a smaller and more local scale, more susceptible to fluctuations and shocks. Our analysis of data from the World Bank Enterprise surveys in Kenya, Tanzania and Uganda suggest that enterprises owned or managed by women report lower sales and earnings and are more affected by power outages and water shortages, in part because of their dependence on public infrastructure. Women often self-select into informal or hyperlocal work to respond to competing pressures on their time for domestic work. Informality lends some women the flexibility they need to balance care work with paid employment, but [often at the cost](#)

[of higher wages and social protection](#). In some contexts, [women's mobility is highly restricted](#) by gender norms or access to safe, reliable transportation (or both), forcing women to limit their economic activities to smaller geographical areas. This, coupled with limited linkages to broader markets, exposes women disproportionately to economic and climate shocks in their neighborhoods.<sup>12, 13</sup>

### Outside of the labor force

Outside of formal and informal economic activities, women and men also interact with and use resources





differently. Women are disproportionately responsible for various aspects of household and care work, including collecting water and fuel and preparing meals. Indigenous women and women living in forest communities in particular—representing over one billion people worldwide—are primarily responsible for meeting household needs not only for food and energy, but also for livelihoods, fodder for livestock, traditional medicines, and to make clothing and other culturally significant items. Climate change poses a major threat to those activities.

In 2018, 2 billion people were living in countries under water stress, and that number will only rise as climate change continues to shift weather patterns and reduce rainfall.<sup>14</sup> Droughts and increased scarcity of food, land and other resources will force women to travel increasingly long distances to manage their household responsibilities. This places an additional burden on women's time, further constraining their opportunity for and access to education and paid work.<sup>15</sup>

Resource shortages affect entire families, and evidence suggests economic and climate shocks have ripple effects on women's and girls' well-being—such as increased rates of child marriage. When household incomes fall, parents struggle to support their daughters, and marriage may be viewed as an attractive option to lessen their financial and resource burden.

### **GENDER NORMS CONSTRAIN WOMEN'S ABILITY TO ADAPT**

Gender norms governing the ways in which women and men engage both within and outside of the household will also limit women's ability to adapt to climate change. For example, laws and norms that prevent women and girls from owning or inheriting land and accessing credit and other financial resources constrain their ability to move to more climate-resilient industries<sup>16</sup> or amass savings that could be leveraged to respond to climate and income shocks.

Norms that limit women's mobility may also prevent them from taking the steps necessary to respond to changes in climate. Broad access to various markets, vendors and buyers is a critical attribute of resilience. Entrepreneurs who can move, with little effort, within and between these spaces will rely greatly on this flexibility as availability of inputs and demand for goods and services shift with the climate. Entrepreneurs who can organize and negotiate collectively may be able to negotiate better prices for inputs and outputs and increase their resilience in the face of volatile markets and scarcity driven price hikes exacerbated by climate change.

Similarly, unequal patterns of household and financial decision-making, specifically women's dependence on their husbands to

undertake decisions around spending household resources, may prevent women from investing in new adaptive and climate-resilient technologies or inputs. Women who are unable to make decisions around migration may also find themselves especially vulnerable to climate change if they reside in areas that are particularly susceptible to drought and other unpredictable weather patterns.

Finally, norms dictate access to national decision-making spaces, from which women have largely been absent. As policies are created in response to climate change, women's underrepresentation on the governmental stage threatens to ignore their realities and needs.

### **WOMEN WILL BE INSTRUMENTAL TO COMBATING CLIMATE CHANGE**

Women are not only disproportionately vulnerable to the effects of climate change; they are also a key tool for combating it. The agricultural and food sectors in which they are clustered are ripe for investment in sustainable technologies. For instance, many women in these jobs rely on a fuel source that is both unsustainable and harmful to the workers who interact with it—each year 3.8 million people die from illness related to inefficient and unhealthy cooking practices.<sup>17</sup> These same fuel sources are a major contributor to environmental degradation. An estimated 20 percent of urban ambient air pollution is caused by household fuel burning.<sup>18</sup> Targeting investment in more sustainable fuel sources would drastically reduce greenhouse gas emissions. Doing so requires investment in household and small business cooking, the majority of which is done by women.

Increasingly donors and countries are focusing on regenerative agriculture and ecosystem restoration to respond to climate change, increase ecosystem productivity and preserve forests and promote carbon sinking. Regenerative agriculture<sup>19</sup> and agroforestry—strategies that increase productivity and yields and reduce pressure on ecosystems—are alternatives to shifting cultivation of increasingly degraded soils. However, they are unlikely to be taken up by women who lack tenure security or are not able to access technology and training to achieve the transformation. Ensuring that women farmers and entrepreneurs have

access to the technologies and training that support regenerative agriculture and their products can be key in fostering a more widespread adoption of these approaches.

### **Without a doubt, the need to design adaptive technologies to respond to the growing threat of climate change presents an opportunity for engaging women, particularly female entrepreneurs.**

Women's local knowledge and contextual understanding is a critical tool for developing and disseminating adaptation strategies that will be successfully and broadly adopted within their communities. In addition, the demand for innovative strategies represents an opportunity for the development of entrepreneurship, including among women. Promoting women's skills-building and providing support for women-run businesses would meaningfully strengthen our ability to respond to climate change. However, lack of access to information, training and decision-making fora has meant that women have remained largely excluded from investment in climate change responses and adaptations, and their knowledge has remained an untapped resource.<sup>20</sup> Practical and effective mitigation of climate change requires the active engagement of women.

Key programs such as the Global Environment Facility Trust Fund<sup>21</sup> and the Forest Carbon Partnership (REDD+)<sup>22</sup> attempt to reverse nature loss and sequester carbon. These programs attempt to reduce emissions from deforestation and forest degradation, and foster conservation, sustainable management of forests, and enhancement of forest carbon stocks by working with governments, Indigenous Peoples and local communities. Ensuring that women are brought into these partnerships, and their access rights to sustainably managed natural resources protected, will be part of sustaining their livelihoods as countries plan to adapt to and mitigate climate change. But beyond seeing women as beneficiaries, their knowledge and relationship to the resource base should also be drawn upon in developing these national strategies and responses to climate change.



Finally, women's active and equitable engagement in the labor force has the potential to buoy the global economy and generate the necessary fiscal space to meet the financial needs of countering climate change and investing in green growth and new technologies. Women's equal participation in the labor force would increase GDP by an estimated \$28 trillion, well beyond the climate finance gap.<sup>23</sup>

## RECOMMENDATIONS

In order to respond to the demands of climate change and meet the needs of female entrepreneurs and workers in climate-vulnerable situations, we present the following recommendations:

### Increase climate investment that is gender-sensitive

It is essential that the current global upward trend in spending on gender equality and climate change continue, with particular emphasis on sectors from which women have been largely excluded. For example, while the link between gender and sectors like water and agriculture is widely documented and funded, energy has been more gender segregated. Between 2013 and 2014, only 8 percent of climate-related aid to energy also targeted gender equality.<sup>24</sup> Likewise, as Table 1 suggests, gender-responsive climate funding differs meaningfully between countries.

TABLE 1

| RECIPIENT COUNTRY | GENDER-RESPONSIVE CLIMATE-RELATED ODA (USD MILLION) | PERCENTAGE OF AID TO CLIMATE CHANGE TARGETING GENDER EQUALITY |
|-------------------|---|---|
| UGANDA            | 171   | 71%   |
| TANZANIA          | 166   | 72%   |
| KENYA             | 138   | 35%   |

OECD DAC Network on Gender Equality. (2016). *Making climate finance work for women: Overview of bilateral ODA to gender and climate change.*

To ensure that investments in climate are gender-sensitive and build on the experiences and knowledge of women, women must be given access to spaces in which climate decisions are being made and policies being crafted, and their participation in those spaces must be substantial, meaningful and active.<sup>25</sup> A concerted effort is required to ensure that women's voices and concerns are represented in climate change mechanisms and negotiations. The IUCN has highlighted this issue of women's under-representation in decision-making spaces, particularly on climate finance mechanisms and boards.<sup>26</sup>

### Document women's knowledge and focus on capacity-building for climate adaptation among women and female entrepreneurs

Women's relationship with climate-related industries and technologies should be analyzed and leveraged to create opportunities for both entrepreneurship and sustainability. As women are largely responsible for land and water management, their unique

experience with and knowledge of water conservation, deforestation and native seeds and farming practices make them a perfect match for entrepreneurship roles within those sectors. Investments must also be made to improve women's access to the green economy and new climate-resilient sectors. Currently, less than one-quarter (between 20 and 24 percent) of jobs in the renewable energy sector are held by women.<sup>28</sup> If women are to be successful in the world of climate change, they must have access to nontraditional sectors. This will require equitable legal rights around ownership of land and financial resources, as well as targeted training opportunities to prepare women to move between industries and be able to develop and implement mitigation strategies and technologies.<sup>29</sup> Efforts to increase widespread acceptance and practice of certain green activities, including, for instance, recycling and composting, must be undertaken in addition to more generally improving attitudes toward female business owners.

## SAHA GLOBAL: TRANSFORMING WOMEN'S CARE WORK INTO ENTREPRENEURSHIP



In northern Ghana, Saha Global has helped women launch nearly 250 small water enterprises (SWE), collecting, treating and selling potable water, which have both improved quality and availability of drinking water in local communities and created entrepreneurship opportunities for their female leaders and staff. In communities identified by Saha Global, women are nominated by local leaders to become water entrepreneurs. The women are provided with key inputs to build a water treatment system, then trained on water treatment and business skills such as pricing and marketing.

Using knowledge and skills these women already had, SWEs transform unpaid care work women are already doing (collecting water for their families) into economic opportunities. Says Saha Global's co-founder and executive director Kate Cincotta, "Most [women] have been managing water for their families, some of them since they were as young as four years old ... the women know water."<sup>27</sup>

[www.sahaglobal.org](http://www.sahaglobal.org)

### **Integrate a value chain approach that addresses women's livelihoods and climate resilience**

Prominent research by the KIT Royal Tropical Institute and the FAO on gender in key supply chains and International Food Policy Research Institute (IFPRI) underscores the importance of including a gender focus in efforts to promote resilience to economic and environmental shocks.<sup>30</sup> This research highlights how agricultural systems, gender roles and climate change interact. At the lower end of most agricultural value chains we often have smallholders and landless laborers. The livelihoods imperative means that all members of a household work—although there may be a pronounced gender specialization in activities, with women and girls disproportionately engaged in caring and household responsibilities (gathering fuelwood and hauling water, cooking and cleaning) as well as in agricultural processing and sales, and men and boys specializing in production and paid labor. As climate change reduces ecosystem resilience, incomes fall, livelihoods shift, and time use patterns also change. Ensuring that ecosystem-based solutions

restore resilience and do not contribute to time poverty by increasing time burdens, particularly those of women and children, will be key to protecting household well-being.<sup>31</sup>

### **Increase and improve the collection of sex-disaggregated data**

Finally, there is a critical need to collect sex-disaggregated data to ensure we have a comprehensive understanding of the ways in which climate change interacts with gender and women's livelihoods and entrepreneurship. The interrelation of climate, gender and entrepreneurship has been largely understudied and remains a key area for research, investment and innovation. Key databases ranging from agricultural censuses and household surveys to the World Bank Enterprise Surveys should collect data on the impact of climate change on women's livelihoods and on enterprises. These should be used more consistently to elevate the concerns voiced by women's organizations and through their networks that their livelihoods are being increasingly undermined through climate change.

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*Brief designed by Brevity & Wit*