

## **KEY MESSAGES**

- Women in Africa are heavily reliant on environment-related livelihoods. They tend to work in the informal economy, and in low valueadded activities that reap marginal returns, making them vulnerable to climate change effects.
- Women remain absent from climate change politics and policymaking. This is largely because climate change debates have been shaped by stereotypically masculine discourses that work to exclude or alienate women and their concerns in climate change issues. Climate change is widely represented as a techno-scientific problem
- requiring technical solutions, yet women with expertise continue to be largely sidelined from participating in the development of such solutions. Without women's inputs on climate change policy, climate change could itself become another barrier to gender equality.
- Women's awareness and agency should be harnessed for gender-responsive and sustainable climate action. Their unique knowledge, skillsets and perspectives, borne out of how they interact with food systems, technology, and institutions, can improve the effectiveness of climate action.

 Many climate change interventions prioritise productivity at the expense of issues such as gender, social inclusion and equity. This trend must be checked. For effective assessment of progress towards gender equality in climate action and to adequately report on instruments, robust monitoring and evaluation (M&E) systems, with sex-disaggregated data and sufficient funding support, are a must. "

We have to prioritize the most vulnerable. We know already that climate change disproportionately impacts women and girls, elderly, people with disabilities, and historically marginalized communities."

**John Kerry, Special Presidential Envoy for Climate, USA** GCA Ministerial Dialogue on Adaptation Action, January 2021

#### INTRODUCTION

Climate change and gender inequalities are linked in complex ways. On the one hand, climate change can be a barrier to progress towards gender equality. But equally, gender inequality can exacerbate the effects of climate change. Women and men are not only affected differently by climate change, but they also contribute differently to climate change action. Women and men experience different levels of exposure, vulnerability and resilience to climate risk and climate change impacts because of gender differences in rights, responsibilities, and opportunities. They experience differing vulnerabilities because of differences in workloads, in access to and control over productive assets and resources, and in participation in household decision-making and access to information and technology.1 Their vulnerability varies not only because of gender, but also ethnicity, religion, class, location and age. Rural women are at high risk of being negatively affected by climate change, due to household responsibilities, increased agricultural work resulting from climate impacts, and male outmigration—with consequences on family nutrition, childcare, and education.2

The importance of gender integration in climate action has been appreciated globally, though at a slow pace. There has been a realisation of the importance of the role of women in core climate change sectors, including agriculture, livestock management, energy, disaster risk reduction, forestry, water management, and health.3 Women make up two-thirds of the world's 600 million small livestock managers.4 Women's local and environmental knowledge, in addition to their survival strategies, play a major role in recovery and resilience,5 with women acting as major contributors to adaptation and mitigation in water management, food security, agriculture and fisheries, biodiversity, ecosystem services, health, energy and transportation, human settlements, disaster management, and conflict and security.6 Particularly at the local level, women's knowledge is a valuable resource for adaptation. For example, in agriculture, women are knowledgeable about sowing seasons, multi-cropping, local crops, trees, herb varieties, wild edible plants, crops suitable to particular climatic conditions, seed selection, seed storage, preparation of biofertilizers, pesticides, manure application, pest management, post-harvest processing, and value addition.7

# UNPACKING GENDER DIFFERENCES IN CLIMATE CHANGE EXPOSURE AND VULNERABILITIES

According to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, the poorest segments of society are the most vulnerable to climate change, with poverty being a key determinant of vulnerability for several reasons, principally access to resources to allow coping with extreme weather events and marginalization from decision-making and social security.8 For men and women, vulnerability to climate change can be a result of gender roles and gendered differences in responsibilities, time-use patterns, and access to and control over land, money, information, credit, inputs and tools, household labour, good health, education, agricultural extension, markets, household entitlements, food security, secure housing, and freedom from violence, all of which are not readily accessible to women.9 Social norms compound these constraints by restricting women's freedom of movement, choice, and voice.

Water, energy, and food shortages, caused in part by climate change, result in time-consuming labour as well as increased costs on the part of women and girls as they must travel further and pay more to collect these resources. In rural Mali, for example, water scarcity is a growing challenge for women who are responsible for fetching it. The cost of water during the dry season in these areas is 20-40 times more expensive than water in Mali's major cities. Case studies from Ghana and Uganda show that one of the most significant social impacts of environmental stress in farming systems is the intensification of women's workloads and the decreases in the assets of poor households.<sup>10</sup> This indicates that climate change effects on local environments will add additional burdens to women's time. The adverse effects of climate change have also resulted in an increase in climate-induced migration, leading to some men moving to urban centres to pursue better incomes. In turn, women take up leading roles in rural agriculture, resulting in the feminization of agriculture and additional familial responsibilities left to rural women.

In Mozambique, Malawi, and Zimbabwe, of the almost two million people affected by Cyclone Idai in March 2019, close to 75,000 pregnant women were left vulnerable owing to lack of reproductive health services, sanitation and clean water. Within the camps set up by aid agencies and at host families, women and adolescent girls traditionally entrusted with care and domestic work took on additional responsibilities during the crisis, figuring out where to get clean water and find firewood for cooking. Women and girls queued for long hours to receive food aid to ensure families had food. Owing to their gender roles, women spend a significant amount of time ensuring that other members in their household, including men, children, and the elderly, are adequately and properly nourished. When climate change leads to shortages of food, cultural norms may lead to greater malnutrition among girls and women.

For example, women are expected to eat only once they have fed their families, which affects the share of food they receive.<sup>11</sup>

The increase in time allotted to domestic activities limits the time women and girls have to engage in public decision-making, attend meetings, develop and incorporate income-generating strategies into their households, and take part in education and community activities. This further restricts their opportunities for empowerment or strategic change. In relation to property ownership, a 2018 World Bank working paper on gender gaps in property ownership in Sub-Saharan Africa reveals that 13 percent of women claim sole ownership to land, compared to 36 percent of men. The gap narrows when joint ownership is included.

Table 1: Property ownership in Sub-Saharan Africa

		Ownership							
	Type of ownership	Rate in percent			Number of people in millions				
		Female	Male	Gap	Female	Male	Gap		
Land	Sole	13.1	36	22.9	21.8	60	38.1		
	Sole and joint	37.8	50.6	12.8	63.2	84.2	21		
Housing	Sole	12.9	39.2	26.2	21.6	65.3	43.6		
	Sole and joint	43.1	55.0	11.9	72.1	91.6	19.5		

 $Source: Africa-wide\ explorations\ based\ on\ Demographic\ and\ Health\ Survey\ data\ for\ 27\ (land)\ and\ 28\ (housing)\ countries\ from\ 2010-2016$ 



Only 15 percent of land in this region is managed by women. The Sub-Saharan average of 15 percent masks wide variations, from fewer than 5 percent in Mali to over 30 percent in Botswana and Malawi. Women's lack of property and land tenure rights often forces them to work on less productive land, makes them less likely to be reached by extension agents, and results in a lack of access to climate change information as well as inputs that might enable them to diversify their livelihoods and increase their resilience to climate-related shocks.<sup>13</sup> Statistics show that in Africa, women receive seven percent of agricultural extension services and less than ten percent of credit offered to small-scale farmers.<sup>14</sup>

The evidence reviewed for this GCA analysis shows that women in Ghana, Burkina Faso, the Gambia and Kenya are much less likely to use purchased inputs such as fertilizers and improved seeds or to make use of mechanical tools and equipment,15 making them vulnerable to climate change effects such as extreme weather conditions. In Ghana, for example, 39 percent of female farmers adopted improved crop varieties compared with 59 percent of male farmers. Relatedly, men have better access to climate and weather information than women, implying better adaptive capacity. 16 Also, the gender digital gap in mobile phone ownership and internet use, as well as other information and communications technology (ICT), is significant in Sub-Saharan Africa and exposes women to vulnerability to climate change. According to the 2021 Mobile Gender Gap Report,

the mobile ownership rate (a person having sole or main use of the mobile phone) for women in Sub-Saharan Africa is 75 percent and the gender gap (how less likely a woman is to own a mobile phone than a man) in mobile ownership is 13 percent.<sup>17</sup> Data on mobile ownership and mobile internet use in selected countries (See Table 2) shows what is what is typical of countries in Sub-Saharan Africa.

The gender gap in access to productive resources shapes climate change impacts on men and women and how they can respond to the those impacts. Women's limited access to productive assets and services compromises their adaptive capacity. It means that they cannot access credit to finance climate-smart agriculture innovations and have little access to services that could help facilitate investments to obtain new technologies, improve their natural resource management practices, or adopt more efficient and productive cropping and livestock management practices, all of which could help them address the degradation of natural resources and build their resilience to climate change and recover from shocks.<sup>18</sup>

The COVID-19 crisis poses additional risks to women in general due to high exposure to the coronavirus pandemic, partly because they predominate (representing approximately 70 percent)<sup>19</sup> in the global health and social sector workforce. African women are largely dependent on natural resources, agriculture and other climate-sensitive sectors, and are more vulnerable to the economic and

Table 2: Mobile phone ownership and internet use in Sub-Saharan Africa

Country	ı	Mobile ownershi	p	Mobile internet use			
Country	Male	Female	Gender gap	Male	Female	Gender gap	
Algeria	91%	86%	5%	63%	58%	8%	
Kenya	92%	86%	7%	56%	32%	42%	
Mozambique	64%	47%	27%	28%	18%	36%	
Nigeria	89%	86%	4%	56%	40%	29%	

Source: Mobile Gender Gap Report (2021)

Note: The gender gap in mobile phone ownership and mobile internet usage refers to how much less likely a woman is to own a mobile, or to use mobile internet, than a man.



social consequences of the crisis. The pandemic has clearly led to aggravated gender-differentiated impacts, exposing women to poverty and inequalities and threatening their wellbeing, and so it needs to be viewed with a gender-responsive lens.<sup>20</sup>

The state of infrastructure and technology, ecosystem degradation, and multifaceted disasters and conflicts places Africa at high risk to projected climate change. <sup>21</sup> Women in the continent are heavily reliant on environment-related livelihoods and tend to work in the informal economy in low value-added activities that reap marginal returns, making them vulnerable to climate change effects. It is however important to point out that the knowledge and skills in managing natural resources that women have acquired historically in their various gender roles are essential for effective mitigation and adaptation policies. They have also been agents in dealing with climate change.

My proposal is that we join forces (...) and design a high impact investment facility that focuses on supporting brilliant ideas from entrepreneurs fighting climate change and providing ideas for adaptation."

Karin Isaksson, Managing Director, Nordic Development Fund Leader's Dialogue on the Africa Covid-Climate Emergency, April, 2021

## BARRIERS TO RESOLVING INEQUALITIES

Barriers to resolving gender inequalities in climate change mitigation and adaptation processes continue to persist and still need to be addressed. Women remain absent from climate change politics and policymaking. This is largely because climate change debates have been shaped by stereotypically masculine discourses that work to exclude or alienate women and their concerns in climate change issues.<sup>22</sup> Women are underrepresented in climate change decision-making, as their participation is low in all spheres of climate change governance.<sup>23</sup> As a result, women often feel like they cannot enter climate change discussions, although it is an issue that women in general care about.<sup>24</sup> A worrying reality around the world is that some women with expertise in climate change management and authority on environmental protection are alienated from the dominant issues and solutions on climate change.<sup>25</sup> Climate change is widely represented as a techno-scientific problem requiring technical solutions, yet women with expertise continue to be sidelined from participating in the development of such solutions.<sup>26</sup>

Although initiatives to involve women in decisionmaking have been put in place, mostly in the form of policy in land management, desertification, and climate decision-making processes, their voices are not yet equally represented,<sup>27</sup> particularly voices from African women. This means their limited input into climate change policies and programmes is a concerning gap. In 2012, during the UN Climate Change Conference (COP 18) in Qatar, parties to the conference reaffirmed the urgent need to ensure gender balance in all aspects of negotiations and decision-making, including national delegations to climate conferences. Achieving this is still a challenge. Although, over the past 25 years, Sub-Saharan Africa has registered a modest increase in the proportion of women in political decision-making from 9.8 percent in 1995 to 24.7 percent in 2020, only four countries have passed the 40 percent mark, namely Rwanda, 63 percent; Namibia, 43.3 percent; Senegal, 43 percent; and Mozambique, 41 percent. Women's representation in half of the African countries as of 2020 was still below 20 percent. The number of women appointed in cabinets is generally low despite the policymaking power of cabinets. Only eleven countries reached the 30 percent mark in 2019, with Rwanda and South Africa reaching parity, at 52 percent and 50 percent respectively. The cabinets of more than half the countries (31) have a female representation of less than 20 percent.<sup>28</sup> The number of women attending intersessional and Conference of the Parties (COP) meetings remains at below 40 percent.

To increase the effectiveness of climate action, both men and women should participate in and contribute to climate decision-making, policy formulation and implementation action. Meaningful participation by women in decision-making around climate change requires more than the presence of women in climate change institutions and processes. It also requires attention to the deep-rooted sociocultural inequalities that can act as constraints to women's real inclusion and prevent them from participating equally in these processes. These constraints include economic dependency and lack of adequate financial resources, illiteracy and limited access to education, lack of information, lack of the same work opportunities as men, and time poverty.<sup>29</sup> All these issues need to be addressed if the barriers to women's inclusion are to be overcome.

Women's associations can play a major role in fostering the development of gender-responsive policies. An example is that of the Soulaliyat women from Kenitra province of Morocco, whose initiative to claim their rights to land access resulted in a circular issued by the Ministry of the Interior urging provincial authorities to ensure that the principles of gender equality are upheld in the transfer of communal land. The Women Environmental Programme in Nigeria played an integral role in facilitating a National Action Plan on Gender and Climate Change, which is currently under review. Women's agency should therefore

be harnessed for gender-responsive and sustainable climate action. Their unique knowledge, skillsets and perspectives borne out of how they interact with food systems, technology, and institutions can improve the effectiveness of climate action.

Promoting women's voice in policy, planning and implementation needs to be supported by funding. Building on the good progress being made with the Green Climate Fund Gender Policy and Action Plan, further work is needed to prioritise funding for grassroots and women organisations to empower local civil society and to complement the large financing mechanisms. The implementation of gender actions in projects requires dedicated funding; hence it is a good practice to allocate a sufficient budget for the project to support activities promoting gender equality.32 If the funds are not allocated or the implementing project does not have funds to implement specific actions, the gender mainstreaming process will be adversely impacted and delayed. This is the case in most African countries.33

Where gender-sensitive policies to climate change exist, effective implementation in practice has not been achieved on the ground due to the lack of technical capacity, added to lack of understanding of structural gender inequalities.34 There is lack of capacity in governments and other agencies for gender mainstreaming in general and to undertake gender analysis and gender-responsive budgeting for climate action, calling for more gender and climate change experts and capacity development of stakeholders. In addition, gender issues in general and within climate action in particular are treated as cross-cutting rather than standalone issues that deserve serious attention. As a result, the issues are lost or diluted along the way. A review of NDCs found that many of these documents identify gender as a cross-cutting policy priority or commit to mainstreaming gender but do not articulate specific strategies or actions.

Although there are progressive laws at both global and local levels for the promotion of gender equality and women's empowerment, these are not harnessed effectively in climate change adaptation planning and implementation. Hence the notion of policy evaporation. Gender-sensitive climate policy instruments in some countries inform NDC priorities and actions, but few countries include gender outcomes in monitoring. Most NDCs do not address structural causes of gender inequalities and mentions of gender in many tend to be brief. Only 10 countries have developed gender and climate change plans (GCAPs) in the last few years: Bangladesh, Cambodia, Haiti, Kenya, Mozambique, Nigeria, Panama, Peru, Tanzania and Zambia. Half of these countries are in Africa.<sup>35</sup>

Furthermore, synergies and coherence among stakeholders such as Ministries of Agriculture, Climate, Environment, Water, Land and Gender at national and subnational levels are often notably absent.

There is also a gap on the documentation of best practices as well as statistical infrastructure to better understand gender-differentiated climate impacts and inform policy design, planning and implementation. This is accentuated by a lack of sharing platforms to promote learning.

Many climate change interventions prioritise productivity at the expense of issues such as gender, social inclusion and equity. For effective assessment of progress towards gender equality in climate action and to adequately report on instruments, well-structured and robust monitoring and evaluation (M&E) systems, with sex-disaggregated data and sufficient funding support, are a must. M&E systems generate key lessons and provide evidence of progress which can then inform the strategic direction of a country's gender mainstreaming initiatives. To put it simply, if an initiative is not being measured or assessed in some way, then progress, or the lack of it, cannot be seen and the matter cannot be managed.

# PROVEN, PROMISING AND INNOVATIVE ADAPTATION SOLUTIONS

There is a growing realisation that preparation for and responses to climate change need to be sensitive to gender issues. To this end, there are a number of strategies that can act as proven, promising and innovative adaptation solutions that take into account women's and men's respective capacities, power, social resilience, vulnerabilities, and resources as a consequence of gender norms, roles and relations.<sup>36</sup> Some of the most interesting examples that emerged in this GCA analysis include:



## Use of gender analysis tools to optimise gender-responsive adaptation in Mali

The International Fund for Agricultural Development (IFAD) reports how it uses gender-analysis tools to optimise gender-responsive adaptation. Mali was committed to securing agricultural production in a context of increased drought-like conditions, greater heat and lower rainfall. In order to do this in a gender-responsive way, the Fostering Agricultural Productivity Project used participatory approaches to identify, document and understand differences in women's and men's knowledge, their respective vulnerabilities, and their existing capacities for adaptation. This step was critical to developing effective, well-targeted interventions. The process allowed men and women to assess their situation and vulnerability to different threats and see how these affected them in different ways because of gender roles, social patterns, and their knowledge about different aspects of environmental management. The process allowed them to develop adaptation plans that involved women and men in areas where their concerns were greatest and where their knowledge and skills could have the best results. Consequently, one of the main gender-related benefits is in allocations of irrigated land, which are now more inclusive of women, supporting improved livelihoods and family food security. The project will also collect and analyse male/female household headship data, sex-disaggregated information on agricultural yields for specific products, and data on producers adopting new technologies. Further, it will track the numbers of women benefiting from specific subprojects, including newly irrigated land areas.

## Generation of and use of evidence

In 2020, the African Development Bank conducted a gender-climate hotspot analysis at the continental level in Africa. This analysis examined genderagriculture-climate change impact hotspots for both adaptation and mitigation in agriculture by mapping women's participation in agriculture (the percentage of women employed in the agriculture sector by country), climate risk in agriculture (the percentage of land under various climatic risks), agricultural

## Climate change gender action plans in Liberia

The aim of Liberia's Climate Change Gender Action Plan (ccGAP) is to ensure that national climate change strategies and programs are gender-responsive across sectors. The ccGAP therefore ensures that as policies are developed and planning is undertaken, governments align their climate change priorities and other national policies to address gender considerations. The overarching objective was to ensure that gender equality is mainstreamed into the country's climate change policies, programs, and interventions so that both men and women have equal opportunities to implement and benefit from mitigation and adaptation initiatives in combating climate change and positively impact on the goal of "Liberia Rising 2030". Agriculture, coasts, forestry, health, water and sanitation, and energy were the sectors covered by the plan. Drawing from the Liberia Priority sector, much focus was put on coastal erosion, which greatly impacts the livelihoods of the surrounding population. It is estimated that 230,000 people are at risk and 2,150 km of coastline will be significantly affected by a 1-meter sea level rise, including land and infrastructure in much of the capital Monrovia, valued at \$250 million. Liberia's ccGAP therefore includes actions in the coastal sector with the objective to implement a robust gender-balanced monitoring system in coastal zones with concrete activities and quantifiable indicators of output. For example, this includes consultation with stakeholders in the selection of gender-balanced coastal monitoring indicators and the number of women trained in coastal monitoring. To address the lack of human resources in collecting observed climate data, various women's associations assisted the meteorological services by collecting this information when provided with mobile phones.

emissions (percentage of emissions contributed by agriculture sector) and the Gender Inequality Index (GII). The study revealed geographical and thematic areas where gender and climate gaps exist and proposed some measures to address the vulnerabilities. The study showed how differences between countries in a region could provide insights into policies or programs that allow for the development of effective climate change strategies at national and subnational levels.

### **Innovative financing**

In Uganda, the Centenary Bank of Uganda provides financial services to more than 1.4 million clients, with a focus on microfinance.<sup>37</sup> In 2013, it developed an agricultural finance department and, by 2017, introduced a new initiative to provide preferential interest rates on loans for farmers who buy climate-resilient seeds and/or irrigation kits.38 One of the project goals was to incentivize climate risk management and climate change adaptation actions for local farmers, especially women. For the initiative, the Bank partnered with a domestic seed company and a company with expertise in irrigation technologies. Although established before Uganda's draft National Adaptation Plan (NAP) document, the Centenary Bank scheme aligns with its identified priority actions, especially as they pertain to climateresilient crops and strengthened irrigation farming.<sup>39</sup> The NAP process provides a basis to support these initial efforts by Centenary Bank and will contribute to the further scaling up of the initiative. By facilitating direct financing to farmers in Uganda, the initiative will contribute to Uganda's NAP process and adaptation efforts.

#### **Afforestation**

In Rwanda, UNDP supported the women's group Twiyubake Turengara Ibidukikije (Empowering Ourselves in order to protect the Environment) in 2008 for a bamboo-growing project. The women used the grant to plant 60 hectares of bamboo trees for use in making furniture, baskets and handicrafts. Besides offsetting GHG emissions, the project is reducing deforestation and erosion in the Nyungwe Forest National Park and offers women a stable income of between \$10 and \$200 per month.

### **POLICY RECOMMENDATIONS**

It is crucial to have women represented in decisionmaking at all levels in order to be able to influence innovative, sustainable solutions to climatic challenges. Gender balance in national delegations to the UNFCCC should be encouraged and women supported to maximize their voice, confidence and negotiation skills while 'at the table'. Where women are excluded from governance, decisionmaking processes are more likely to result in policies that ignore the unique needs, knowledge, and contributions of women. Currently, women's representation in different structures is limited due to various socioeconomic and cultural issues. To create and foster an enabling environment, it is essential, in addition to strengthening their skills and their decision-making ability, to promote women's access to knowledge related to climate change across all the relevant sectors. This capacity-building would enable them to develop sustainable climate resilience practices and promote gender-sensitive development sector projects. More funding at grassroots level will help empower women. Relatedly, gender and climate policies and practice need to be strengthened in climate funding instruments at all levels.

It is essential to develop tools/methodologies/ guidelines and indicators for the monitoring, reporting and verification of the development and implementation of gender-responsive climate policies and strategies in Africa to facilitate tracking of progress in this area. Data collection tools such as the Women's Empowerment in Agriculture Index (WEAI) and the Gender Empowerment Index for Climate-Smart Agriculture (GEI-CSA) provide a good starting point to measure the impact of climate interventions on women and men and address areas of disempowerment.<sup>40</sup>

Governments need support to build their capacity to integrate gender into national adaptation and mitigation plans, NDCs, and into sectoral plans and programs through training in gender-responsive policy analysis, policy development, planning, budgeting, implementation, monitoring and evaluation. In addition, there is need to strengthen the capacity of farmers' groups for gender-responsive service delivery in the face of climate change, for example through access to resources and services such as land, fertilizers, seeds, and markets.

