



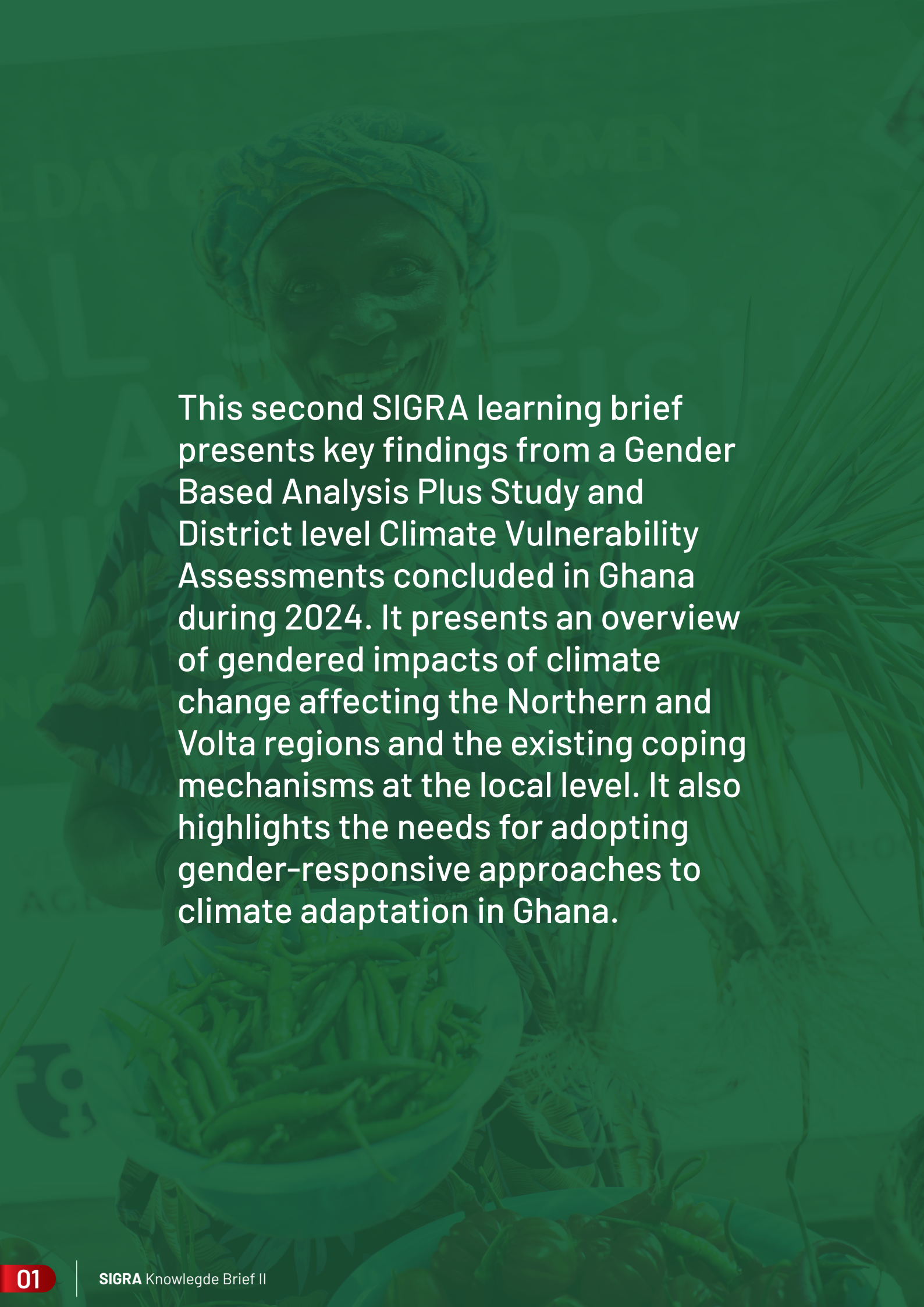
Strengthening Investments
in Gender-Responsive
Climate Adaptation

Knowledge Brief

ADVANCING GENDER RESPONSIVE CLIMATE ADAPTATION IN GHANA

Cover photos: Nana Kofi Acquah / IWMI





This second SIGRA learning brief presents key findings from a Gender Based Analysis Plus Study and District level Climate Vulnerability Assessments concluded in Ghana during 2024. It presents an overview of gendered impacts of climate change affecting the Northern and Volta regions and the existing coping mechanisms at the local level. It also highlights the needs for adopting gender-responsive approaches to climate adaptation in Ghana.

1 The Unequal Impacts of Climate Change

The impacts of climate change are global, deeply gendered and intersectional. The ways men and women experience and adapt to climate risks differ. Location, pre-existing inequalities and vulnerabilities also have direct implications on how climate change impacts different groups. This is particularly the case for women, girls, and vulnerable groups. Gender inequality and biased social norms predisposes them to more severe impacts from climate change by reducing their capacity to adapt.

Those inequalities fuel a vicious cycle and include:

- Unequal access to and control over resources and assets (land, money, access to financial services);
- Restrictive gender norms and roles, the unequal gender division of unpaid labour and greater health risks;
- High reliance on natural resources and occupational segregation in the labour market.



Strengthening Investments in Gender-Responsive Climate Adaptation (SIGRA)

In Ghana, women are more dependent on climate-sensitive sectors such as agriculture, livestock, water and fisheries. Climate impacts such as droughts, floods, heat stress and rising sea level disproportionately affect women and vulnerable groups, particularly in the rural and agrarian communities. These dynamics highlight the importance of adopting locally based and gender-responsive approaches to climate adaptation, which recognize and address the specific needs, vulnerabilities, and capacities of all community members. Yet, climate discourses often overlook the knowledge and experiences of women and vulnerable groups, despite their critical role in adaptation and resilience-building.

The SIGRA project seeks to advance climate action and inclusive governance in Ghana. The project is providing technical assistance to strengthen governance and national systems with key central Ministries, Departments and Agencies (MDAs) while providing direct grants to five MMDAs funding local gender responsive climate adaptation projects. It is supporting Regional Coordinating Councils (RCCs) in the Northern and Volta regions and strengthening the ability of targeted Metropolitan, Municipal, and District Assemblies (MMDAs) to plan, implement, and report on climate adaptation initiatives.

SIGRA is implemented by Cowater International, funded by Global Affairs Canada, and will run from 2023 to 2028.

2 Climate Change and Gender in Ghana

2.1 Exposure to Climate Risks and Sectoral Impacts

INCREASED WORKLOAD FOR ACCESSING RESOURCES

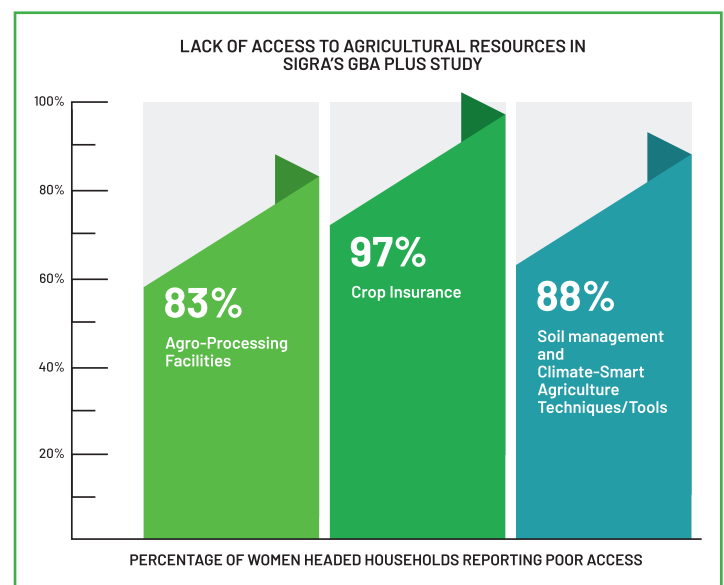
SIGRA's GBA plus study confirms that in both Northern and Volta regions, traditional gender roles result in women shouldering a disproportionate share of unpaid domestic work. For example, women in Ghana spend triple the time relative to men on unpaid work, and household responsibilities such as fetching water and firewood, cooking, and childcare typically falls to women and girls. Climate change directly affects the availability of resources (including firewood and water), and aggravates the impacts of climate change on women. For instance, in Kumbungu District in the Northern region, water collection is almost entirely the responsibility of women. SIGRA found 97.2% of men surveyed identified women as the primary collectors, and 100% of women confirmed this role. A study by UNICEF (2020) found that women in the district spent an average of 3-4 hours daily collecting water during the dry season, time that could otherwise be spent on their education or income-generating activities.



In Mion District, also in the Northern Region, many women expressed deep concerns about the decreasing water tables, particularly during the dry season, as it increases their workload and exposes them to extreme heat and dehydration. The community surveyed relies on four boreholes, only one of which is functional year-round, forcing women to spend a long time queuing for water, including at night. In addition to women, young girls also bear the increased workload for walking longer distances to fetch water, increasing the chances for school dropouts and incidences of harassment and violence. Increased work burdens, combined with few or no household assets and resources, make it even more challenging for women to access economic opportunities, enhance their human capital, and/or tend to their health.

IMPACT ON AGRICULTURE

Ghanaian women play a critical role in food production and agriculture value chains. In Northern and Volta region, SIGRA's climate vulnerability assessment highlights that more frequent droughts and floods are increasing crop losses, poor harvests, and food shortages, leading to income losses. Women and vulnerable groups (such as the elderly, women headed households), who rely on rain-fed subsistence farming and have limited access to land, finance and technology, bear the brunt of these impacts. A study by Adzawla et al. (2019) found that women in Northern Ghana spent up to 20% more time managing food shortages during droughts, reducing their capacity for other income-generating activities. In Sang, a community in Kumbungu District, women farmers have had to rely on traditional water conservation methods, such as digging shallow wells near dried riverbeds, to sustain crops during dry periods. In SIGRA's GBA Plus study the vast majority of women headed households reported poor access to agricultural and agro-processing resources.



The dry seasons are getting longer and longer, and our crops are failing. If we had a reliable way to water our fields, we could grow food all year and feed our families.

(Female farmer, Focus Group Participant (FGD), Nanumba South)

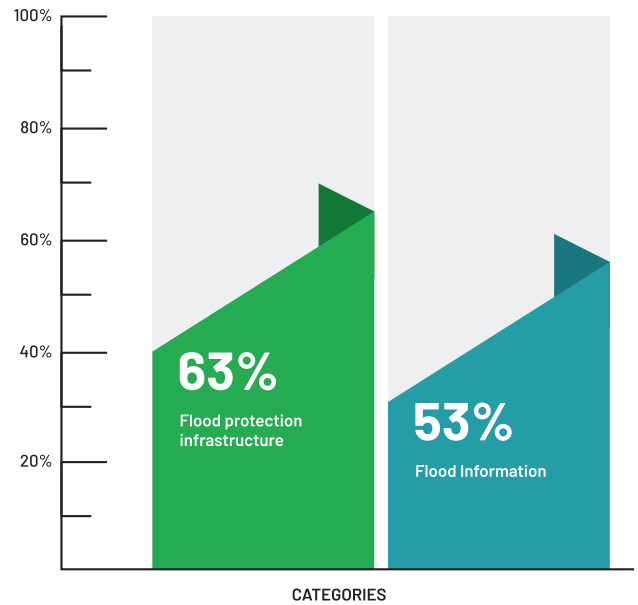
IMPACT OF DISASTERS AND INFRASTRUCTURE DAMAGE

Women are often responsible for ensuring household safety during such events, increasing their burden as caregivers. This includes rebuilding homes, securing food for their families, and caring for children displaced by floods. Many women in flood-affected areas respond by abandoning farming temporarily, further reducing household income. In Dalun, Kumbungu District, women-led households were among the hardest hit by the 2019 floods. With limited access to financial support or disaster relief, many resorted to selling livestock or relying on informal borrowing networks to rebuild their homes and farms. According to our GBA Plus study, only 63% of women-headed households have access to flood protection infrastructure. Access to flood information is also poor, with 53% of these respondents reporting inadequate access.

I am a weaver and live in a flood-prone area. As a young girl living with a disability, I am left to fend for myself through weaving, and I do not have enough money to purchase a wheelchair. I am always worried anytime there is a flood in my area because I cannot move out of my home to go to work, and this means I cannot make money for any day missed.

(Female FGD participant, Kumbungu, Northern Region)

LACK OF ACCESS TO FLOOD PROTECTION AND INFORMATION FOR WOMEN-HEADED HOUSEHOLDS IN DALUN, KUMBUNGU DISTRICT



IMPACT ON COASTAL ECOSYSTEMS AND FISHERIES

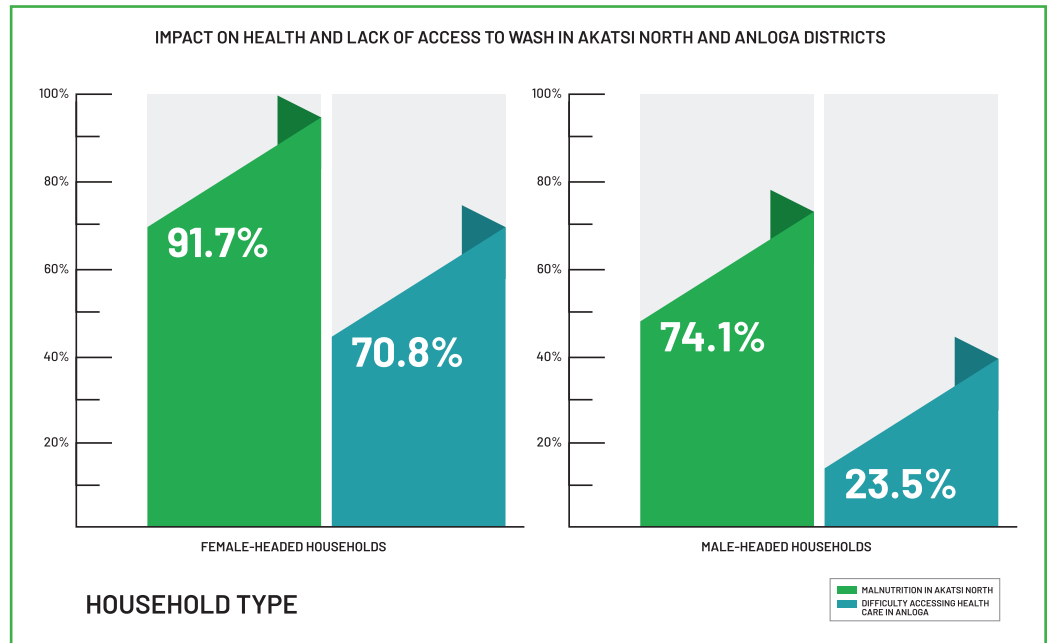
In Anloga District in the Volta region, women are affected by a range of climate impacts including sea surges, coastal erosion, flooding in Keta lagoon, loss of fertile lands, and increased water salinity. Women play an active role in the markets as processors and traders and are critical for managing the supply and demand for goods and local produce from agriculture, fisheries, and wood from mangrove ecosystems. Damage from flooding and tidal waves impact local market infrastructure causing water logging and damage to basic sanitation facilities, increasing health risks for women engaged in trading. Furthermore, coastal erosion, degradation of mangrove ecosystems and flooding of agricultural lands has impacted agricultural yields and led to declining fish catches. This disproportionately affects women involved in fish processing and marketing, further limiting their incomes and economic opportunities.



Photo: Nana Kofi Acquah / IWMI

IMPACT ON HEALTH AND LACK OF ACCESS TO WASH

As primary caregivers, climate change-induced health risks disproportionately affect women. In Akatsi North (Northern region), malnutrition is a significant concern, with 70.8% of female-headed households reporting it, compared to just 23.5% of male-headed households. This illustrates women's higher vulnerabilities to food insecurity and poor nutrition. Water shortages during droughts hamper access to clean water, affecting hygiene and sanitation practices, increasing the prevalence of waterborne diseases. Increased prevalence of diseases like malaria, diarrhea, and respiratory infections due to changing weather patterns also heightens the burden on women who serve as primary caregivers for sick family members. Female headed households (91.7%) were also more likely to report difficulty in accessing healthcare, due to barriers such as distance, cost, or low quality of care, compared to male-headed households (74.1%). In Anloga District, pregnant women face reduced access to health facilities for prenatal and postnatal care during episodes of lagoon flooding.



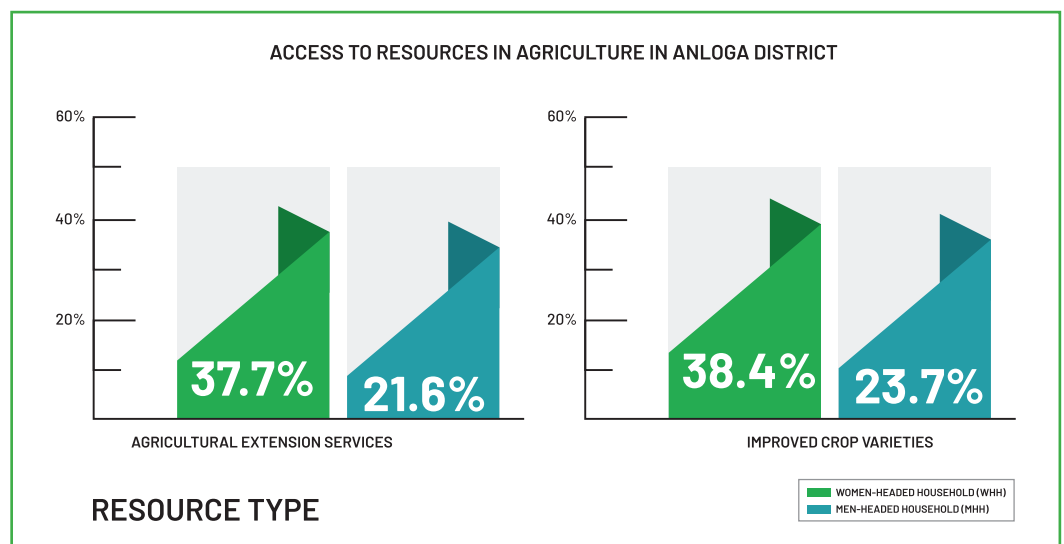
It is also affecting our health. The heat during the dry seasons can be unbearable, and sometimes there is not enough water to stay hydrated. Health-wise, we see more cases of illnesses. It is a worry, especially for our children and elderly family members.
(Female Focus Group Participant -Karaga, Northern Region)

2.2 Socio-Economic Vulnerabilities

LACK OF ACCESS TO AND CONTROL OVER RESOURCES

34% of women in rural areas of Ghana are engaged in agricultural activities .

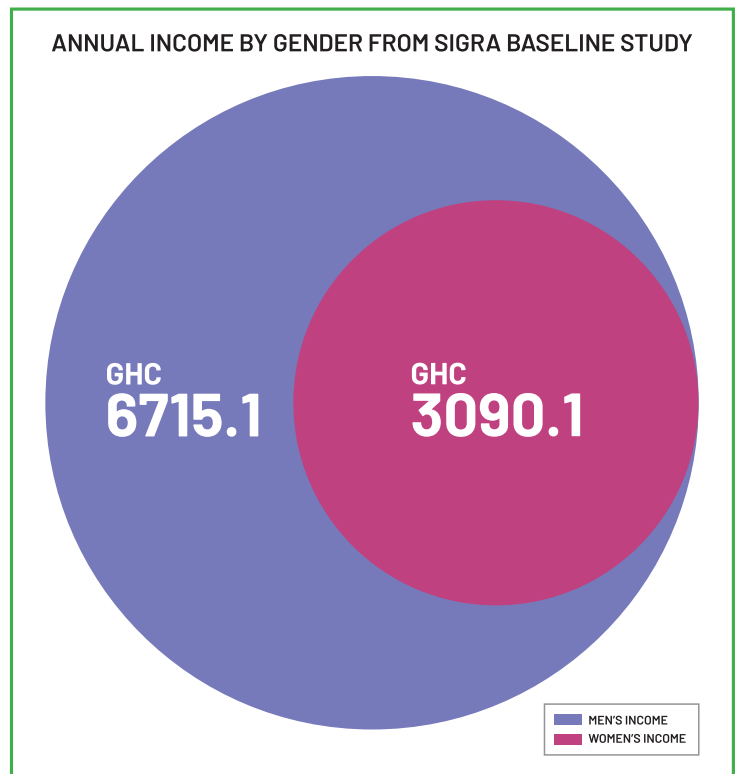
Yet, women in agriculture face major hurdles over accessing and controlling resources and assets along its value chain. In both the Volta and Northern regions, land ownership is predominantly passed down along the male line, restricting women's access to and control over land resources. In Northern Ghana, women often face legal and social hurdles when attempting to assert



their land rights independently, reinforcing their subordinate position and reducing their ability to generate household income. Gender norms and expectations also relegate women to informal and low-income sectors, further exacerbating their economic marginalization. In Anloga District, men headed households (MHH) generally have better access to resources compared to women headed households (WHH) in agriculture. Men have better access to land, loans, agricultural extension services, improved crop varieties and irrigation systems. This difference is especially large for agricultural extension services and improved crop varieties.

TRADITIONAL GENDER ROLES AND LIVELIHOODS

Women had a labour force participation rate of 65.3% in 2023, but they are typically limited to low-paying and informal sectors characterized by a high level of precarity and lack of social protection in climate-sensitive sectors. Economic vulnerabilities, extend to youth, the Fulani ethnic group, and migrants who all struggle to access financial resources, technology and markets. SIGRA's baseline data revealed a significant income gap between men and women, with men (GHS 6,715.1) earning more than double the annual income of women (GHS 3,090.1) in project areas. The economic disadvantage of women and vulnerable groups, driven by wage discrimination and unstable employment, renders them vulnerable to climate-related food insecurity and losses from natural disasters.



LACK OF ACCESS TO INFORMATION

In most farming and rural communities in Ghana, women have less access to information such as climate forecast and agriculture extension services compared to men. In Kumbungu, lack of education was reported as a key barrier with men reporting higher educational levels. Only 4.5% of men lacked formal education compared to 25.8% of women. Women also have less access to technological devices (such as smart phones, internet, computers) as well as the skills to use them. In Anloga, men headed households were reported to have better access to climate information services (MHH=22.3% vs. WHH=12.4). The lack of access to information reduces the ability of female smallholder farmers to cope with the livelihood impacts of climate change. It further drives gender disparities in the adoption of climate resilient farming practices. There is also a disconnect between expert technical language and the lived experience of women, with community leaders and government staff exhibiting the mistaken belief that rural women are unaware of climate change (SIGRA PEA Study, 2023). The traditional local role of women as knowledge holders of indigenous farming practices are also often overlooked in the climate change discourse.

2.3 Institutional Challenges Impacting Adaptive Capacities

LACK OF ACCESS TO DECISION-MAKING SPACES

In Ghana, the lack of women in decision-making positions at all levels, including in public life, may be attributed to the patriarchal power structures and gender discriminatory attitudes. A lack of systematic engagement of women and women-led CSOs in government policies and budget decisions further means their perspectives and needs are rarely considered by policymakers in the design and implementation of climate change solutions. A lack of familiarity with the technical language and knowledge required to engage in climate change represents a barrier to women engagement. Women's exclusion from government planning, budgeting, and accountability processes also stems from gaps in government capacity for multisector coordination and leadership on gender equality. As a result, gender considerations are not systematically identified, analyzed, and integrated in major decisions, including those related to climate change adaptation. The following table illustrates the significant gender gap in decision-making positions in the Anloga District.

Level	Total	Men	Women	Men in %	Women in %
Assembly Level	43	40	3	93.0 %	7.0 %
MMDA staff Level	92	59	33	64.1 %	35.9 %
Sub-district Level	105	91	14	86.7 %	12.3 %

Source: Anloga District Assembly, District Gender Profile, June 2023

Weak inter-institutional and multi-sectoral coordination of MDAs (Ministries, Department and other Agencies), MMDAs (Metropolitan, Municipal, and District Assemblies), and CSOs in gender-responsive climate adaptation efforts also leads to duplication of efforts and poor targeting. This includes poor synergies and alignment between the national gender policy, national strategies addressing gender responsive climate adaptation, and sectoral policies, plans and programs. In addition, the effective integration of those policies in government planning at national and local levels remains lacking.

Gaps in implementation of gender-inclusive policies and plans are driven by the weak implementation of laws and policies, particularly at the local level, due to a lack of political will, competing priorities, and lack of resources effectively funding local development. The NDPC (National Development Planning Commission) and the MoF (Ministry of Finance) budget preparation guidelines mandate MMDAs to plan and budget for gender and climate change activities. However, MMDAs have limited knowledge on how to practically integrate gender equality and climate change in their plans and budgets. There is also limited data collection and availability of sex and age-disaggregated data on climate change impacts and adaptation strategies. This reduces the ability to assess who is benefitting from adaptation initiatives and who is excluded.



3 Opportunities for Advancing Gender-Responsive Climate Adaptation

In Ghana, it is critical to recognize the role of women in key socio-economic sectors (including health, agriculture, fisheries, water resources management and market access) to co-devise adaptation solutions that address their differential needs and makes use of their indigenous knowledge toward building community-wide resilience. This requires targeted policies and programs that not only address immediate climate challenges but also aim to rectify systemic inequities over the long term. There is also a need to recognize women as change agents contributing to household adaptive capacities and intra-household adaptation decision-making, instead of seeing them as passive victims of climate change. With additional caregiving responsibilities, women are often the first responders in the face of climate impacts and show high potential for the uptake of innovative solutions.

Some of the key opportunities for advancing gender responsive adaptation include:

SHIFTING SOCIAL NORMS TOWARD MORE EQUITABLE ACCESS TO RESOURCES

Shifting social norms can improve access to and control over resources, facilitate women's participation in decision-making, and boost their economic resilience. In Ghana, a shift in socio-cultural norms to reduce deep-rooted inequalities can facilitate land ownership and management, access to resources (including finance, credit, information, technology) and foster equitable participation and representation in decision-making. This can be achieved with local CSOs raising awareness and advocating for gender equality, land rights, and inclusive adaptation measures. Building the skills of women and vulnerable groups to access resources, technology, information, and exert leadership in adaptation planning, would further complement this.

Behaviour change communications to shift social norms- improving access to/ control over resources, participation in decision-making, and boost economic resilience.



Coworking with local CSOs to raise awareness and advocate for gender equality, land rights, and inclusive adaptation measures.



Building the skills of women and vulnerable groups to access resources, technology, information, and exert leadership in adaptation planning



MAINSTREAMING GENDER IN GOVERNANCE AND POLICY PROCESSES

Integrating gender equality in the policy and planning cycle first requires the development of national adaptation plans (NAPs) at cross-sectoral and sub-national levels. At the local level this needs to be decentralized through:



ACTIVE ROLE IN DECISION MAKING

Increasing the engagement and influence of women and vulnerable groups in decision making and advocacy, can ensure that their voices inform the planning and prioritization of adaptation strategies. This can be achieved through:

Active participation and leadership of women and vulnerable groups in all stages of adaptation planning, implementation, and monitoring.



1

Community Level

Community engagement to inform adaptation priorities and co-design solutions that work for women and vulnerable groups.



2

Institutional Level

Participatory engagement of CSOs in development planning and budgeting committees is key for advancing women's rights and influencing decisions in gender-responsive adaptation. Effective implementation of the Affirmative Action Act, 2024 will also be critical toward increasing women's representation in decision making in public and private sectors.



3

GENDER DISAGGREGATED DATA TO DESIGN EQUITABLE ADAPTATION SOLUTIONS

Collecting and analyzing gender disaggregated data can help identify the differential needs of women and better integrate their needs when designing adaptation solutions. Development and analysis of gender indicators also help to evaluate adaptation programs and assess whether the projects are effectively addressing gender disparities and contributing to gender equality

CLIMATE FINANCE THAT IS JUST AND GENDER INCLUSIVE

Gender-responsive climate finance to address systemic gender inequalities in Ghana requires funding mechanisms designed to support such initiatives.



Innovative climate financing models to fund community-driven initiatives.



Integration of gender and climate in annual budgets with corresponding funding allocations at district level.



Improving the enabling environment at local level, empowering MMDAs for accessing & managing climate finance.



Effective systems for managing & monitoring climate finance and outcomes achieved.



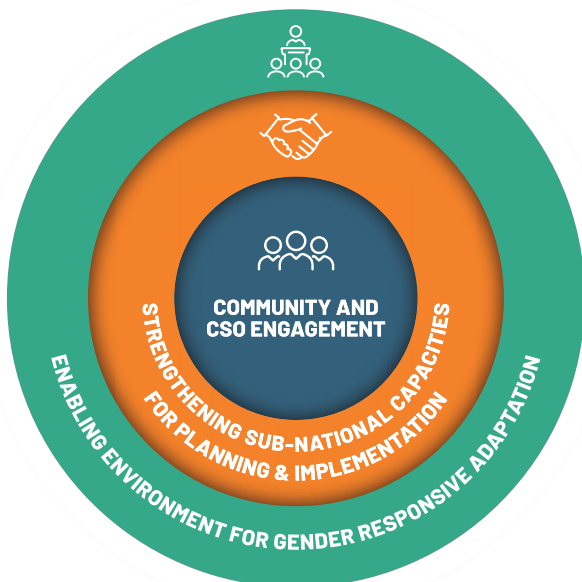
Building the technical expertise at MMDA level to design bankable projects and foster partnerships with national and international donors.

SIGRA's Integrated Approach for Fostering Gender-Responsive Adaptation

Strengthening the enabling environment for gender-responsive adaptation: SIGRA builds institutional capabilities at national and regional levels for planning, implementing, and monitoring a gender-responsive National Adaptation Plan (NAP) and accessing climate finance.

Strengthening sub-national capacities for planning and implementation: Locally, SIGRA strengthens the ability of MMDAs to identify, plan and budget for gender-responsive climate adaptation. This includes technical assistance on planning, budgeting, and executing climate adaptation projects. The project further funds locally led gender-responsive climate adaptation initiatives such as climate-smart agriculture and access to water in five MMDAs.

Enhancing gender inclusive voice and influence: SIGRA is partnering with national and local women-led CSOs to increase their capacity and influence on gender responsive adaptation planning, budgeting, and reporting processes. We also support community partnerships (including women and vulnerable groups) to co-design adaptation priorities and increase their awareness on locally led adaptation.



- Improved capability of MDAs on climate and gender responsive planning, budgeting & reporting.
- Enable access to climate finance.



- Improved capability of MMDAs on gender responsive adaptation planning & budgeting.
- Financing locally led gender responsive climate adaptation.



- Improved capability of women led CSOs to engage/influence decisions.
- Community awareness & participation to co-design solutions.



4 Digya Lane, Airport Residential Area
Accra – Ghana

info@sigraghana.org
+233 53 046 5748



www.sigraghana.org

