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A REVIEW OF THE NATIONAL CLIMATE CHANGE POLICY AND THE NATIONAL CLIMATE CHANGE ADAPTATION STRATEGY

CONTENTS

C	HAPTER ONE	
1.1	BACKGROUND 1.2 About the POWER Project in Ghana 1.3 Rational for this Assessment 1.4 Scope of the Assessment 1.5 Methodology	PAGE 1 PAGE 5 PAGE 6 PAGE 7 PAGE 7
C	HAPTER TWO	
2.1	REVIEW OF CLIMATE CHANGE AND GENDER POLICIES 2.1.1 The National Climate Change Adaptation Strategy 2.1.2 The National Climate Change Policy (NCCP)	PAGE 9 PAGE 10 PAGE 12
C	HAPTER THREE	
3.1	DISCUSSION OF RESULTS AND FINDINGS 3.1.1 Climate Change Policy Implementation, Impacts and	PAGE 15
	Challenges in Agriculture 3.3. Implementation Challenges 3.4 Funding for Climate Change Mitigation and Adaption in Ghana 3.5 Ghana's Implementation of the Malabo Declaration Under CAADP	PAGE 16 PAGE 29 PAGE 30 PAGE 34
C	HAPTER FOUR	
4.1	THE EFFECTIVENESS OF NCCAS, CONCLUSIONS AND POLICY IMPLEMENTATION 4.2 Effectiveness of the Implementation of the NCCAS and the NCCP	PAGE 42
	4.3 Main Conclusions and Policy Recommendations4.4 Other Recommendations4.5 Recommendation on the CAADP Processes	PAGE 44 PAGE 47 PAGE 48
R	EFERENCES	PAGE 49



AAG ActionAid Ghana

AAESCC Adaptation of Agro Eco-System to Climate Change

AAP African Adaptation Project
AEA Agricultural Extension Agents
CSO Civil Society Organisations

CAADP Comprehensive African Agricultural Development Programme **CAFSAP** Climate-Smart Agriculture and Food Security Action Plan

CRSA Climate Resilient Sustainable Agriculture

FBO Faith Based Organisations **FGD** Focus Group Discussions

DA District Assemblies

ECCU Environment and Climate Change Unit

IPCC Inter-Governmental Panel on Climate Change FAOSTAT Food and Agriculture Organisation Statistics

GECCA Ghana Environmental Conventions Coordinating Authority

GCAN Ghana Climate Adaptation Network

GHG Green House Gas

GPRS Ghana Poverty Reduction Strategy

GSGDA Ghana Shared Growth and Development Agenda

HRBA Human Rights Based ApproachMRV Monitoring, Review and VerificationNCCP National Climate Change Policy

NCCAS National Climate Change Adaptation Strategy

NDC Nationally Determined Contributions
MTDP Medium-Term Development Plans

MGCSP Ministry of Gender, Children and Social Protection

NAIP National Agriculture Investment Plan SDG Sustainable Development Goals

UNDP United Nations Development ProgrammeUNEP United Nations Environment Programme

UNFCCC United Nations Framework Convention on Climate Change

WRI World Resource Institute

LIST OF TABLES & FIGURES

TABLES

- Table 1: List of Prioritised Adaptation Programmes in the NCCAs
- Table 2: Climate Change and Climate Policy Literacy Among Key Factors
- Table 3: Multilateral Funds Secure for Ghana's Climate Change Response Programs
- Table 4: Performance of Ghana Under CAADP
- Table 5: 2017 Ghana Scorecard for Implementing Malabo Declaration

FIGURES

- Figure 1: Smallholder Access to Extension Services
- Figure 2: Smallholder Access to CRSA Support Systems
- Figure 3: Smallholder Inclusion in Financial Markets
- Figure 4: Household Cooking Energy in Power Communities
- Figure 5: Operational and Institutional Framework for Implementation of the NCCP
- Figure 6: Overall Progress for Implementing Malabo Declaration for Agriculture Transformation in Africa

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While it is common knowledge that the impacts of climate change will significantly alter lives and livelihoods across continents, vulnerable societies and individuals are expected to suffer disproportionately from impact of climate change. Women and their livelihood systems are expected to be hardest hit by climate change impacts largely due to culturally-imposed limits on women's ownership and control of resources including land, labour and capital, and imbalance in power relations across communities.

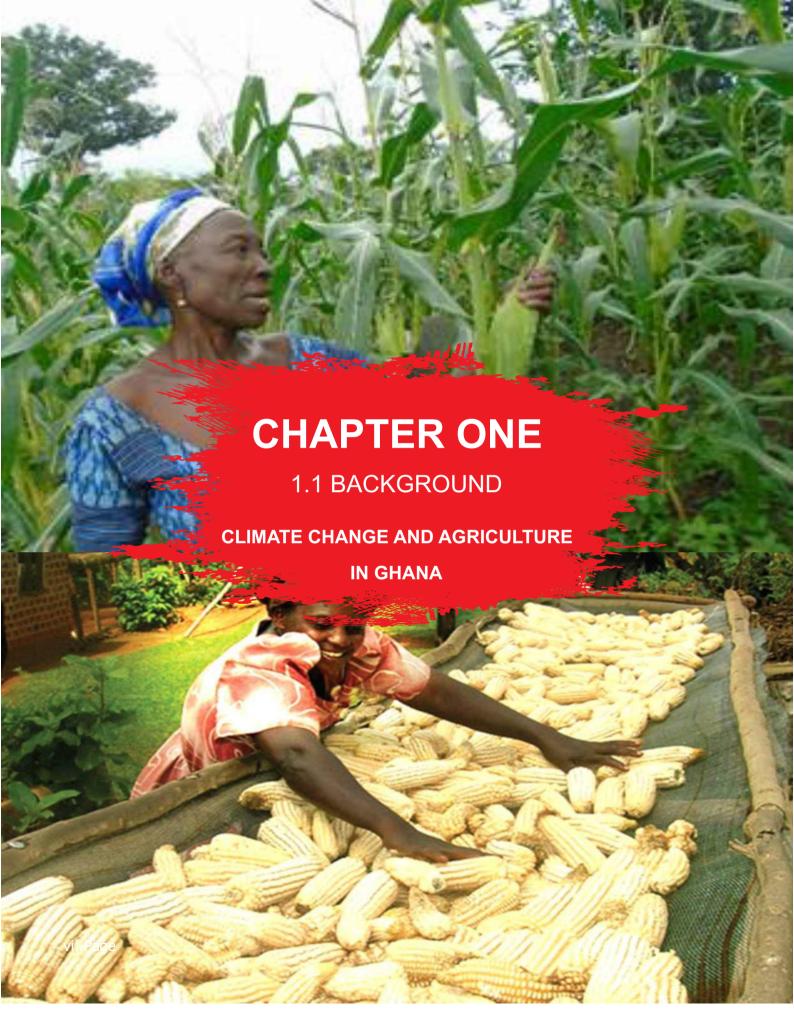
With hydro meteorological disasters including floods and droughts projected to intensify, livelihood systems dependent on these climatic factors will be negatively impacted. Agriculture which remains the major employer of rural labour in Ghana will be significantly exposed to the impact of climate change with women largely depend on rain-fed agriculture suffering disproportionately.

Improving adaptive capacities of communities and vulnerable populations through policy and investment to strengthen resilience remains the only feasible path to giving climate vulnerable populations a fighting chance. This report, Climate Change and Women Empowerment in Ghana takes a closer look at efforts to build climate resilience and improve adaptive capacities of smallholder farmers through policy and investment. The report reviews key national climate change response policy documents— the National Climate Change Policy and the National Climate Change Adaptation Strategy with a gender lens.

An important feature of this report that makes it relevant for policy and development discourse is the effort to unpack key national climate response policies and presenting these policies within the contexts of livelihoods and people. The report starts with a review of national climate policies and related charters, examines progress and challenges in the implementation of the policies and provides important insights into the funding infrastructure for climate mitigation and adaptation. The report pays particular attention to the disproportionate impact of climate change on women especially in the northern parts of Ghana and provides pointers on how to make national climate policies and interventions work for women smallholder farmers.

The challenges existing approaches by asking whether farm-level measures such as switching crop varieties would be enough to offset expected losses or whether there was the need for sustained investments in crop breeding and irrigation.

There are numerous documents, policy briefs and reports on climate change policies and programmes in Ghana. What makes this report worthwhile and important for development practitioners is the simple language and user-friendly nature.



BACKGROUND

The reality of climate change as a global phenomenon of immense/far reaching implications for humankind is no longer in doubt. The wealth of scientific evidence contained in the reports of the Inter-Governmental Panel on Climate Change (IPCC), has raised awareness about the climate crisis considerably. Since 1992, the United Nations Convention on Climate Change (UNFCCC) has made some progress in agreeing on mitigation and adaptation measures in response to climate challenge. Largely because of Green House Gas (GHGs) emissions, climate everywhere is recording dramatic qualitative changes. Increasingly there is growing intensity and frequency of weather and climatic extremes, such as floods, droughts, heat waves, and so on (IPCC, 2013). These climate changes associated with increasing global warming are having far reaching effects on the natural environment as well as on social and economic activities. The 4th and 5th IPCC assessment reports give clearer interpretation about the expected hydro meteorological disasters (e.g. floods, droughts, cyclones, hurricanes, etc.) in different parts of the world, if the current trends of greenhouse gas emissions continue.

Agriculture is a key component of food security and one of the main sectors affected by climate change. Crop yields are highly dependent on climate fluctuations, as agriculture is mostly rainfed. The West Africa region, which is particularly vulnerable to climate variability and changes, produces 53per cent of the cereals, roots and tuber crops in sub-Saharan Africa (FAOSTAT).

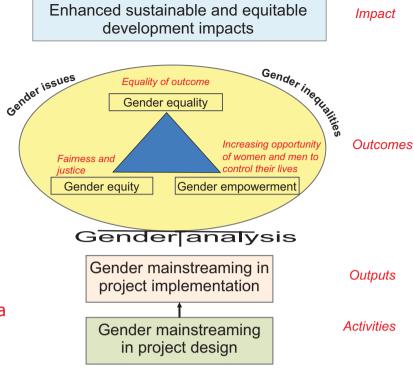
The ability of the government, systems and the population of the region to adapt to agriculture to new climates is evidence to many that climate change poses a fundamental threat to agriculture and by extension food security. The magnitude and speed of climate change that is expected over the next century raises serious questions about how much agriculture can be adapted to new climates, how quickly, and at what cost. With specific reference to Ghana, the question is: Will simple farm-level measures such as switching crop varieties be enough to offset expected losses as the practice have been in larger part of the country? Or will larger investments in crop breeding or irrigation infrastructure be needed to meet the food needs of a growing population in the country? Or could even these efforts fall short?

Such questions are central to both anticipating and full impacts of climate change on food security and human livelihoods, and in planning appropriate responses. Many possible adaptations involve direct changes to agricultural systems, such as changing when and where crops are grown. Food security involves more than just food production, there is the need to also consider various broader responses to climate change that might improve food security, such as improving social safety nets that protect poor farmers in adverse years (IPCC, 2013). The central interest to ActionAid Ghana is the adoption of climate resilient and sustainable approaches to promote food security. This approach is anchored in human rights perspectives, and fostered through sound policy formulation, and implementation with right holders and relevant national and local agencies and departments. The issues of concern to women remain very central to the approach with gender being mainstreamed into policies, plans, programmes, projects adopted in building resilience to mitigate the impact of climate change.

Unfortunately, there is little existing quantitative evidence on the ability of adaptation to improve food security outcomes in the face of climate change. Particularly difficult is disentangling the relationships between farmer responses to climate variability, which occur continually, and their likely longer run responses to changes in mean climate. Given the negative impacts of climate variability on agriculture and food security in Ghana, supporting smallholder women farmers in Ghana to better adapt to climate variability and change is a central concern of the POWER project.

Climate Change and Women in Ghana

The degree to which people are affected by climate change impacts is partly a function of their social status, gender, poverty, power and access to and control over resources. There is increasing acknowledgement of the differential experiences and skills women and men in development and environmental sustainability efforts. At the same time however, women's marginalisation in economic, political and legal spheres limit their capacity to cope with the adverse effects of the changing climate. Drawing on women's experiences, knowledge and skills and supporting their empowerment will make climate change responses more effective. However, the impact of gender inequalities and women's recurrent socio-economic disadvantages continue to be ignored and remain a critical challenge to adaptation efforts. Figure 1. provides a broader conceptual framework for mainstreaming gender issues for women empowerment and economic development.



Source: FAO

Women play a very significant role in the agricultural sector in Ghana. The contribution of women farmers to food security in Ghana is very key. For, instance, women producers within the cereal production sub-sector are more than men especially in the middle and northern belts of the country. There is a causal interrelationship between climate change and gender relations whereby inequalities work disproportionately against women to exacerbate the negative impact of climatic change. In spite of their disproportionate share of the negative impact of climate change, women have proven resilient and moved beyond notions of being victims to one of active agents of change. Notably, women possess unique knowledge and skills due to their close interaction with the environment, and are therefore able to understand the risks and position themselves to contribute to redressing such risks.

Therefore, taking the different impact of climate change on men and women is key in achieving the Sustainable Development Goals (SDGs) by 2030. Gender inequalities exist in the access to valuable resources such as land, credit, agricultural inputs, technology, extension and training services that would enhance women's capacity to adapt. These inequalities can worsen with the impacts of climate change; however, taking steps to narrow the gender gap and empower women can promote resilience and reduce such negative impacts.

According to the 2010 population and housing census, women constitute about 51.2 per cent of the total population in Ghana and about 30 per cent are heads of households. Ghana's agriculture is predominantly smallholder, traditional and rainfed (SRID, 2001). They control key productive sectors particularly in agriculture and in other sectors that are vulnerable to climate change. Approximately, 39 per cent of farm labourers are women. Agriculture contributes 54per cent of Ghana's GDP and accounts for over 40per cent of export earnings while at the same time providing over 90per cent of the food needs of the country.

Climate change will systematically affect women due to their reliance on subsistence farming activities. Firstly, women's income from their livelihoods and other economic activities will become critical thus making them poorer. This reinforces the importance of the environment and particularly climate change in women's lives. Again post-harvest fisheries activities provide a wide range of full-time and seasonal livelihood opportunities to many women and the loss or decline of these opportunities through the impacts of climate change would significantly increase the risks for many of the women who are already living on the margins of poverty.

Another area is the direct link between women's livelihoods and the quality and quantity of water resources and related services. In poorer urban and rural settings where access to potable water is not readily available, women's responsibility for the family and the household to wash, cook and farming activities is huge. Activities such as processing of palm fruits into oil, batik, tie and dye processing also require a lot of water which is mainly provided by women. Unfortunately, such labour intensive activities are not costed nor accounted for and remunerated as work. With climate change exemplified by recurring droughts and coupled with chronic water shortages particularly in the northern parts of the country, majority, of the poor, especially women and children, usually pay high prices or walk for longer distances to collect water, hence increasing the burden of care and domestic work. The intersection of gender and climate change is also noted regarding land rights. Land is a very important input for agricultural production. Apart from the matrilineal and patrilineal inheritance systems through which women could acquire land for farming, there are other tenurial agreements such as renting, sharecropping, leasehold and pledging. Without secure land rights, women have little or no access to credit and other agricultural inputs and services. Furthermore, insecure land tenure systems reduce their incentives and desire to maintain soil quality because they have no permanent rights to the land. Women and children are most vulnerable to hunger related deaths and illness, which would be indirectly exacerbated by climate change through food and water shortages. Cases of cholera, diarrhea, malaria, malnutrition, and heat related deaths may increase depending on varied climate scenarios.

Regarding the energy sector, the role of women is very significant because energy is expended in some form in both productive and reproductive activities of women. The largest portion of all the energy requirements in the typical rural household is biomass derived in the form of firewood. In summary, climate change poses the following potential effects on women in Ghana:

- Increased risk to poverty due to reliance on subsistence farming.
- Increased price and scarcity of water affecting their livelihoods.
- Increased expenditure on alternative energy and water sources.
- Increased exposure to hunger related death or illness.
- Increased household conflicts due to pressure on scarce productive resources.
- Increased workload women and girls.

The situation is not helped by the unfavorable policies at the level of the state which limits women's potential to produce more. Challenges such as the activities of insects, fungi, bacteria, bad environmental conditions, poor post-harvest management, and limited credit facilities inherent in the agriculture sector in the country further limit the extent of recognition of women's contribution to the agriculture sector. It is therefore important to ensure that institutions with the mandate to address gender issues in the agricultural sector live up to their responsibility through implementing relevant policies that empower and value the contribution of women to food security and overall rural development.

The justification for making demands on duty bearers on climate change is rooted in the global conventions and agreements signed on to by the country in line with its membership of the United Nations Framework Convention on Climate Change (UNFCCC).1 Again, Ghana has demonstrated a high sense of commitment towards addressing poverty and promoting sustainable development. Policies that have attempted to do this include: the initiatives such as the Ghana Poverty Reduction Strategy (GPRS I&II) from 2001-2008; the Ghana Shared Growth and Development Agenda (GSGDA I&II) of 2010-2017; and currently, The Coordinated Programme of Economic and Social Development Policies (CPESDP) (2017-2024)-An Agenda for Jobs: Creating Prosperity and Equal Opportunity for All.

Central to these policies and plans, (especially the GSGDA and the CPESDP), is the integration of climate change as well as issues of gender on current and future developments, and how through sector policies, and programmes, climate change as well as gender issues could be addressed in the country's socio-economic development processes.

In the last two decades a number of policies and strategies have been developed to address climate variability and change. Key among the climate change policies and strategies in Ghana are:

- I. Integrating Climate Change and Disaster Risk Reduction into National Development, Policies and Planning in Ghana, 2010.
- ii. National Climate Change Adaptation Strategy (NCCAS), 2012.
- National Climate Change Policy (NCCP), 2013.

¹The Paris Agreement is the latest agreement under the UNFCCC. The <u>Paris Agreement</u> is a landmark environmental accord that was adopted by nearly every nation in 2015 to address <u>climate change</u> and its negative impacts.

- iv. National Climate Change Master Plan Action Programmes for Implementation (2015–2020).
- v. National Environment Policy 2014.
- vi. National Climate-Smart Agriculture and Food Security Action Plan (2016-2020).
- vii. Climate Change Learning and Green Economy Strategy (2017-2025).
- viii. Ghana's Nationally Determined Contributions (Gh-NDCs) 2015 (2020-2030).

Other National Level Related Policies

- ix. Ghana Irrigation Policy, 2007.
- x. The Ghana Shared Growth and Development Agenda (GSGDA) II –2014 2017.
- xi. Food and Agriculture Sector Development Policy (FASDEP) II –2009 2015.
- xii. Medium Term Agriculture Sector Investment Plan (METASIP) 2011 2015.
- xiii. Ghana Strategic Investment Framework (GSIF) for Sustainable Land Management (SLM) (2009 2015).
- xiv. National Action Programme to Combat Drought and Desertification.
- xv. Ghana Strategic Investment Framework (GSIF) for Sustainable Land Management (SLM) (2009 2015).

The development and implementation of the NCCAS and the NCCP is seen as a key milestone in addressing climate change adaptation and reducing poverty by the government of Ghana. This is mainly due to the focus of the NCCAS and the NCCP on specific climate change issues within the context of development in Ghana. The next section reviews Ghana's two main policy documents on climate change.

1.2 About the POWER Project in Ghana

ActionAid Ghana (AAG) is an affiliate of ActionAid, a global movement of people working together to further human rights for all and defeat poverty. AAG believes everyone has the power within them to create change for themselves, their families and communities. ActionAid is a catalyst for that change.

ActionAid works in over 45 countries with over 15 million people worldwide. In Ghana, AAG works in the Upper East, Upper West, North East, Savannah, Northern, Bono East, Bono, Ahafo, Oti, Volta and Greater Accra regions. This represents 11 out of Ghana's 16 regions

Adopting an integrated approach to achieving the organisation's vision and mission, ActionAid is implementing the **Promoting Opportunities for Women's Empowerment and Rights (POWER)** project in eight districts in Ghana. The districts are: Nanumba North and South Districts in the Northern Region; Talinse and Nabdam districts in the Upper East; Jirapa district in the Upper West Region; Tain and Asutifi districts in the Brong-Ahafo region; and Adaklu district in the Volta Region. The aim of the POWER project is to increase women's economic empowerment by reducing the time spent on unpaid care work, promoting their resilience to food security and supporting women farmers to access markets as well as eliminate gender-based violence. The project works across four main outcome areas, from 2016 to 2020. The specific outcomes are:

 6000 rural women are organised, able to demand their rights as farmers and careers and have greater influence in their households and communities

- Unpaid Care Work (UCW) is more highly valued within households, communities and government, more evenly distributed within households, and hours spent by women on UCW is reduced, resulting in more free time for women to engage in social, economic and political activities.
- Six thousand (6,000) rural women have more secure and sustainable access to markets and productive resources leading to increased income.
- Greater visibility of the intersections of Climate Resilient and Sustainable Agriculture (CRSA), women's UCW and women's economic participation leads to changes in policy and practice by subnational, national, regional and international stakeholders by 2020.

AAG adopts a Climate Resilient and Sustainable Agricultural approach to promote food security from the perspective of human rights through sound policy formulation, and implementation with right holders and relevant national and local agencies and departments.

This research seeks to investigate the extent to which the Ghana climate change policy and National Adaptation Strategy have worked for the benefit of smallholder farmers and women farmers in particular and the pledge by the state to commit 10per cent of the national budget for agricultural development towards the implementation of the Comprehensive African Agricultural Development Programme (CAADP). CAADP operates within four main pillars which are:

 Extending the area under sustainable land management and reliable water control systems.

- Rural infrastructure and trade related capacities for improved market access.
- Increasing food supply and reducing hunger across the region by increasing smallholder productivity and responses to food emergencies.
- Improving agricultural research and systems to disseminate appropriate new technologies and increasing the support to farmers to adopt them.

The implementation of CAADP is country based with its secretariat at the Ministry of Food and Agriculture (MOFA) in collaboration other Ministries based on guidelines of the Malabo Declaration. The Malabo declaration has 7 themes and several indicators under each of the themes. However, AAG is interested in theme 4 namely, "Women's participation in agriculture and public sector investments in agriculture".

1.3 Rationale for this Assessment

The rationale for this research is to identify and ascertain the current level of implementation of government programs in line with the policy objectives of the Ghana's National Climate Change Policy (NCCP) and the National Climate Change Adaptation Strategy (NCCAS). It also has the objective of examining the extent of Ghana government's commitment towards the implementation of the Malabo declaration with specific reference to theme four namely, "women's participation in agriculture and public investment in agriculture". The research builds on AAG's intervention to address gaps in policy implementation both at the national and local levels as well as ascertain the various actions that took place as a result of the implementation of the NCCP and NCCAS. The study also seeks to determine the role of the CAADP commitment to

increase the national agricultural budget to 10per cent of total budget expenditure.

This research is critical as it could be used to inform policy advocacy in relation to government's commitment to supporting the implementation of sustainable agriculture interventions that are beneficial and sustainable to women farmers. Again, the Government of Ghana has committed to climate actions under the Paris Agreement from 2020-2030. How are these commitments addressing the challenges and concerns of women smallholder farmers? Overall this research feeds into the policy and advocacy work of the POWER project in Ghana, at the country level and contributes to women farmers' representation at regional and continental discussions on issues of food security and women's leadership. This is very critical, especially, when Ghana is developing its implementation plan for the country's Nationally Determined Contributions (GH-NDCs) to the Paris Agreement.

1.4 Scope of the Assessment

Studying and understanding climate trends, challenges and opportunities are of prime importance to ensuring targeted adaptation interventions for different climate risks and vulnerabilities. The study was to review Ghana's main climate change policy and strategy documents (i.e. the NCCP and NCCAS) to ascertain the extent to which the implementation of the policy documents has translated and supported smallholder farmers and women farmers' adaptive capacity to the impacts of climate change in rural communities in Ghana. The geographical areas that are covered under this assignment as per the Terms of Reference (TOR) include: Nanumba North and South Districts in Northern Region, Talinse and Nabdam districts in Upper East, Jirapa district in the Upper

West Region, Tain and Asutifi in Brong-Ahafo region and Adaklu district in the Volta Region.

According to the TOR of the assignment, (copy attached as appendix) the scope and specific tasks are:

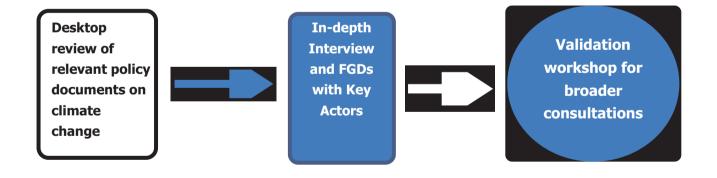
- Determine the effectiveness of the implementation of Ghana's National Climate Change Policy and the National Climate Change Adaptation Strategy and how they have impacted the lives of people living in poverty; especially smallholder and women farmers.
- Examine the extent of the implementation of the 8 million USD Adaptation fund project implemented by the government as part of the National Adaptation Strategy.
- Ascertain the specific percentage or amount of investment (budget allocation) from the public sector that targets women smallholder farmers directly from the implementation of the policy and the CAADP commitments.
- Identify gender gaps in the implementation of the policy in terms of activities, actions and strategies.
- Provide detailed analysis of the institutional arrangements, and regulations that have supported effective implementation of the policies.
- Recommend to government and other stakeholders' findings from the review to support possible future review of the policy documents.

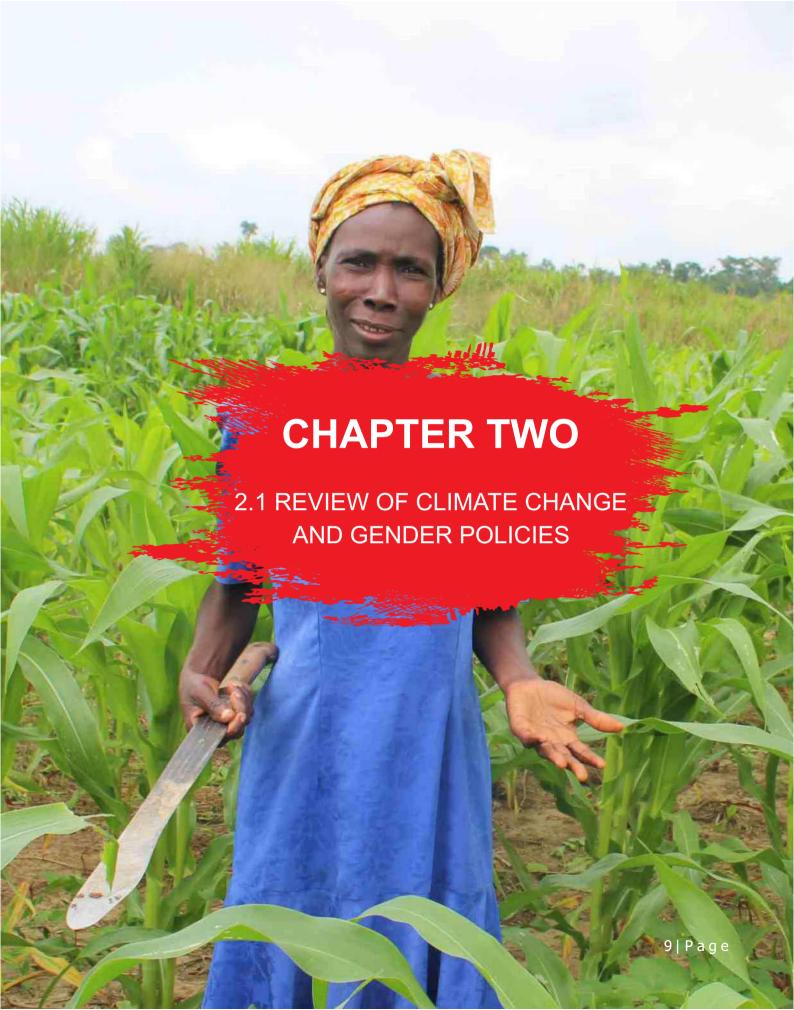
1.5 Methodology

To achieve the objectives of this assignment, desktop review and stakeholder consultations were undertaken. The desktop review consisted of a review of the NCCP and the NCCAS. Because the research focuses on addressing gender issues, Ghana's Gender Policy (2015) was also reviewed to ascertain how climate change issues are addressed within the context of gender. These policy documents were reviewed with the objective of teasing out the key gender gaps and opportunities within the context of climate change.

In-depth interviews with key informants and policy level staff working in the agriculture and environment sectors, with mandates relating to climate change and development were also conducted. Opinion leaders in communities, Faith Based Organisations (FBOs), Agricultural Extension Agents (AEAs) and researchers were also consulted to seek community and field views to complement those from policy makers. The interviews were complemented by focus group discussions (FGDs) and household surveys in the selected POWER Project communities.

The stakeholders consulted in the review process included farmers, smallholder women farmers, women groups and local government authorities (MMDAs), MOFA Desk Officers and Agricultural Extension Agents (AEAs). Due to the national character of the POWER project, the stakeholder consultations were spread across the five regions covered by the project namely, Upper East, Upper West, Northern, Brong-Ahafo and Volta Regions. National level policy actors including the relevant stakeholders in Accra were also consulted. A wider stakeholder validation workshop was organised. The methodology used is described in the figure below:





INTRODUCTION

This section reviews two main national policy documents on climate change within the context of objectives 1 and 4 of the TOR of this assignment. These are: i) Determine the effectiveness of the implementation of Ghana's National Climate change policy and the National Climate Change Adaptation Strategy and how they have impacted the lives of people living in poverty; especially smallholder farmers and women farmers. iv) Identify gender gaps in the implementation of the policy in terms of activities, actions and strategies.

2.1.1 The National Climate Change Adaptation Strategy as part of the "Cancun Enhanced Adaptation Framework", Ghana developed and published the National Climate Change Adaptation Strategy (NCCAS) in 2012 to address medium and long-term adaptation challenges in the country. Even though the NCCAS was published in 2012, actual implementation of the programme of actions in the document had been developed and started in 2010 and is supposed to be updated in 2020.

The NCCAS is seen as a "blueprint" for addressing climate change adaptation in Ghana. The document makes projections for the period 2010-2020 and has the goal of "enhancing Ghana's current and future development by strengthening its adaptive capacity with regard to climate change impacts and building the resilience of the society and ecosystems".

A crucial consideration of the NCCAS is to reduce vulnerabilities in the long-term and to ensure the development of a more holistic and integrated national adaptation strategy.

The formulation and implementation of the NCCAS was guided by the following principles:

- Adaptation policies must be addressed in the broader context of National Development Policy Framework.
- Stakeholder participation should be at all levels because it is central to the formulation and implementation of the NCCAS to ensure ownership.
- Promotion of sustainable development and poverty reduction are focus areas of the adaptation strategy.
- Addressing the long-term impacts of climate change are the principal means for considering adaptation.
- Gender sensitivity and the reduction of vulnerability must be extensively adopted.
- Adaptation policies must be flexible and iterative.
- Adaptation policies must be cross-sectoral and integrative but not necessarily sector wide.
- Implementation of the document shall be according to the principle of learning by doing.

The Approach and Main Output of the Process

Table 1: List of Prioritised Adaptation Programmes in the NCCAS

1.	Increasing resilience to climate change impacts: identifying and enhancing early warning systems	
2.	Alternative livelihoods: minimising impacts of climate change for the poor and vulnerable	
3.	Enhancing national capacity to adapt to climate change through improved land use management	
4.	Adapting to climate change through enhanced research and awareness creation	
5.	Developing and implementing environmental sanitation strategies to adapt to climate change	
6.	6. Managing water resources as climate change adaptation to enhance productivity and livelihoods	
7.	Minimising climate change impacts on socio-economic development through agricultural diversification	
8.	Minimising climate change impacts on human health through improved access to healthcare	
9.	Developing demand and supply-side measures for adapting the national energy system to impacts of climate change	
10.	Adapting to climate change: sustaining livelihoods through enhanced fisheries resource management	

Gender Perspective of the NCCAS

- The document identifies gender issues as part of its core principles.
- The document also identifies alternative livelihoods for the poor and vulnerable groups in the face of climate change, though gender was not specifically mentioned. Though the NCCAS identifies gender as one of its guiding principles, the document did not provide any details on the various gender groups, their peculiar vulnerabilities and the specific strategies to address them.
- Again, there was no gender action plan specifically developed by the NCCAS to address gender issues in the ten (10) priority action areas listed in the document.

- Priority 2 of the list of actions for the NCCAS could have served as a build-up on the achievements of the African Adaptation Project (AAP) which preceded the NCCAS and as such should have picked up from the lessons learnt in its implementation.
- Avenues for private sector interventions in promoting gender at the workplace and supporting rural women agribusiness entrepreneurs was not clearly identified.
- Disaggregated data collection on gender in the implementation of the priority actions was not featured since there was no proper institutionalisation of the monitoring and evaluation process for the NCCAS.

2.1.2 The National Climate Change Policy (NCCP)

The National Climate Change Policy (NCCP) is Ghana's integrated response to climate change. It has been prepared and designed within the context of national sustainable development priorities and provides a clearly defined pathway for dealing with the challenges of climate change within the current socio-economic context of Ghana. The strategic objectives of the NCCP were aligned with the country's medium-term development agenda (GSGDA II). The NCCP also looks ahead to the opportunities and benefits of a green economy. Ghana's policy response to climate change is in three phases:

1. The NCCP presents the policy, analyses of the current situation, and gives the broad policy vision and objectives;

- Phase two (the Master Plan) presents in greater detail, the initiatives and programmes identified in the NCCP in the form of an Action Programme for implementation; and
- Phase three (Mainstreaming) details how climate change programmes and actions identified in the Phase two can be mainstreamed and embedded in a time bound and budgeted manner, into annual work plans of implementing units.

The vision of the NCCP is to "Ensure a climate resilient and climate compatible economy while achieving sustainable development through equitable low carbon economic growth for Ghana". The policy specifically fosters the development of processes, plans, strategies and approaches that:

- Promote climate resilient and low carbon economic growth that is compatible with, and integrated into, national development planning and national budget setting processes,
- raise awareness of decision-makers on the management of climate change impacts, backed by accurate, timely and relevant information,
- link and harmonise existing climate change initiatives and opportunities,
- provide a policy and mechanisms for implementation and financing that allows the building of detailed implementation plans that fulfil Ghana's international obligations
- improve knowledge and understanding of climate change issues in order to obtain broad-based support for, and participation in climate change activities,

- conduct systematic research and observation on climate change related factors in order to improve forecasting and to supply the necessary planning and response measures,
- provide appropriate mechanisms to minimise national contributions to global greenhouse gas emissions

The focus area eight (8) of the NCCP focuses on addressing gender issues in climate change. The policy has listed key policy actions that needs to be undertaken to achieve the objectives of the policy option as follows:

- Ensure the integration of gender equality principles in all social policies such as education, health, water and sanitation.
- Generate gender-specific information including sex-disaggregated data for determining the gender impacts of climate change.
- Develop effective gender and climate change goals and gender-sensitive indicators.
- Collaborate with CSOs, especially women's rights organisations and coalitions, in climate change discussions and processes.
- Build the capacity of the relevant institutions to mainstream gender issues into climate change policy formulation, planning, monitoring and evaluation.
- Prepare and implement gender and climate change mainstreaming strategic plans by institutions, which would provide a sound basis for evaluating the extent of gender mainstreaming.

- Identify and analyse gender-specific needs, impacts, protection and support measures related to climate change and variability such as floods, droughts and diseases.
- Promote gender equitable financing as a means of responding to the differential impacts of climate change by gender.
- This will require establishing clear mechanisms for integrating a gender dimension into the design, implementation and monitoring of all climate funds.
- Increase the resilience of vulnerable groups, including women and children, through the development of communityled adaptation, livelihood diversification, better access to basic services and social protection (safety nets, insurance).
- Integrated biomass strategies for food, fuel, fodder, and other basic needs including income generation.
- Promote effective and equal participation of men and women in climate change policy and decision-making processes.
- Strengthen the implementation of gender responsiveness in disaster risk management.

Gender Perspectives of the NCCP

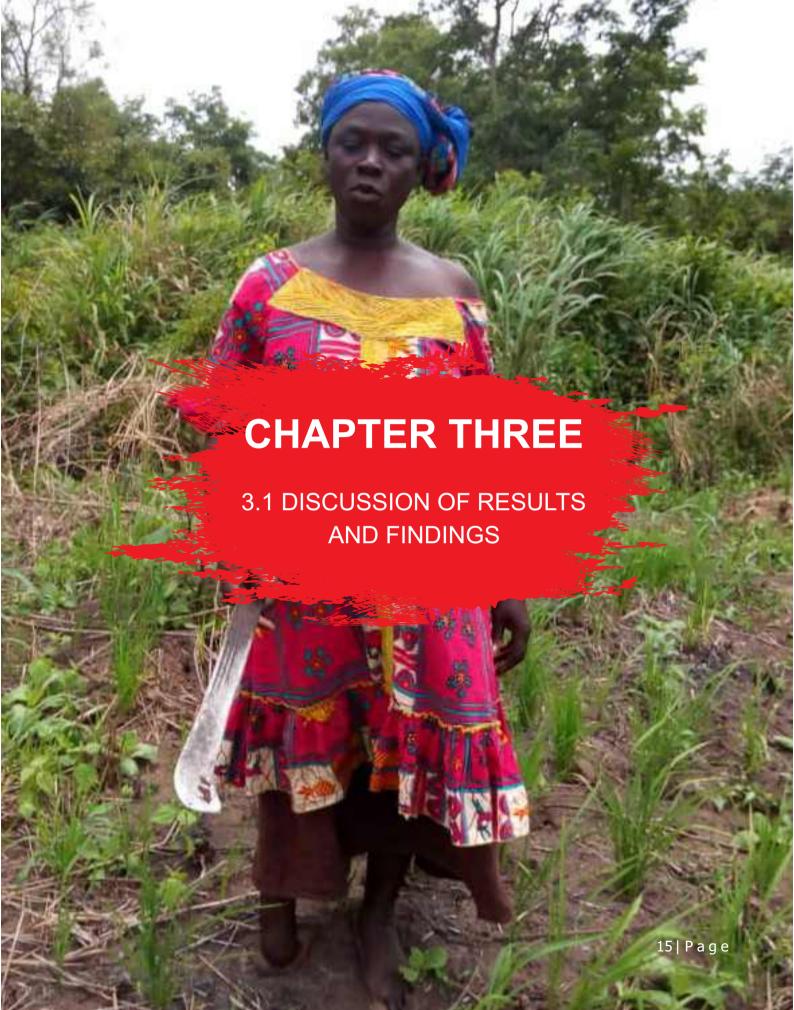
- Gender issues are recognised in the vision, principles and also the thematic areas of the policy.
- Policy focus area eight (8) of the master plan takes a deeper look at gender within the context of climate change. The document builds its policy anchorage on the National Development Planning Framework of the NDPC and the Ministry of Gender, Children and Social Protection (MGCSP).

- The two institutions already have enabling institutional structures that provide suitable entry points for addressing gender issues in the face of climate change. For example, the Gender Ministry already have gender desks in the decentralised structures of Ghana that could provide suitable entry points for effective gender and climate change programmes.
- The master plan also has about five programme areas that specifically look at gender in the context of climate change.

The challenge here is that, these costed programmes are not directly linked with any dedicated funding sources neither were they aligned directly with some sector institutional budget for implementation

- Again, the NDPC framework only recognises gender issues as cross-cutting and so they might not receive the needed focus in terms of programming, implementation and monitoring of gender issues in relation to climate change.
- The key development message from the above is that, the NCCP as a policy catalyst to address climate change in Ghana must clearly propose strategies that would address the concerns of all vulnerable groups, especially women and the aged in the face of increasing threats of climate change and variability.
- Under the gender focus area in the NCCP clear policy actions were outlined for implementation. Whether these actions are being implemented is however not evident on the ground. This points to either poor implementation or ineffective monitoring and evaluation system.

Again though there was a strong gender component in the NCCP effective implementation was bound to be an issue since other ongoing government programmes and interventions to support vulnerable groups including women, have no direct linkage or reference to gender responsiveness to climate change. In summary, it can be said that while the NCCP was very strong on gender issues and how they were to be central in addressing climate change, significant outcomes could be affected by gaps in implementation.



A field study was conducted in the selected locations for this exercise by researchers to ascertain at first-hand the extent of implementation of the NCCAS and the NCCP in these areas to draw scientific and verifiable conclusions which will support future policy planning, interventions and advocacy actions.

3.1.1 Climate Change Policy Implementation, Impacts and Challenges in Agriculture

3.1.1a Climate Change Knowledge and Policy Literacy

Knowledge levels of both climate change and policies formulated to promote climate change adaption are low. This observation is underscored by MOFA's policy and institutional context for climate-smart agriculture at the regional, district and community levels of governance known as the Climate-Smart Agriculture and Food Security Action Plan (CAFSAP). The policy document stressed the need to improve climate change and climate change policy literacy especially at the local government levels.

Despite the deliberate attempts to improve climate policy literacy within institutional contexts and at all levels of local government, knowledge of climate change and national policies for climate change adaptation remain low.

The highest NCCP and CAFSAP policy literacy rates were observed among Desk or Schedule officers of MOFA. All MOFA desk officers interviewed had at least some knowledge of the existence of the CAFSAP. Knowledge of the NCCP is however lower at 80per cent. This trend is expected since MOFA schedule officers were active participants in the development of the CAFSAP.

Agricultural Extension Agents (AEAs) who serve as the link between policy makers and research on the one hand, and farmers on the other, displayed adequate knowledge of the NCCP with only 5per cent having heard of the policy. Only 70per cent of AEAs were aware of the CAFSAP. Over 80per cent of AEAs who lacked poor knowledge of the NCCP were in the Northern Parts of Ghana. The observation is a huge challenge given that farmers and local communities rely on AEAs for climate adaptation knowledge.

Climate change policy literacy at the local government and community levels is even more problematic. All sampled community opinion leaders and smallholder farmers had no knowledge of the NCCP and CAFSAP. Only 4per cent and 2per cent of sampled Assembly Members had knowledge of the NCCP and CAFSAP. Farmers' lack of knowledge of the policy document is perhaps the result of Ghana's high illiteracy rates. The same cannot be said for Assembly Members who are expected to play critical roles in the implementation of the policies at the district levels. It is imperative that climate policy literacy forums are organised for key stakeholders at local government levels. This is important for both monitoring and evaluation and for accountability purposes.

Table 2: Climate Change and Climate Policy Literacy Among Key Actors

Actors/Stakeholders	NCCP	CAFSAP
Agricultural Extension Agents	5per cent	70per cent
MOFA Desk/Schedule officers	80per cent	100per cent
Assembly Members	4per cent	2per cent
Community Opinion Leaders	Oper cent	Oper cent
Farmers	Oper cent	Oper cent

Source: Author's from Field Data, 2018.

It is evident that awareness creation platforms such as those created around World Environment Day and, and World biodiversity/desertification Day celebrations, are not as effective at the community and local government levels. District Assemblies, the media and opinion leaders in communities need to be directly targeted with climate change and climate policy literacy programmes.

3.1.1b Development and Promotion of Climate-resilient Cropping Systems

Developing resilience in cropping systems is key to facilitating female smallholder farmers' ability to adapt to climate change. Climate change risks profile for the Guinea and Sudan Savannah Ecological Zones shows that, the zone faces high risks of long drought spells, frequent flooding and rising temperature (Ghana's 3rd Communication to the UNFCCC, 2015). The zone also faces medium and extreme risks for erratic rainfall and outmigration respectively.

The CAFSAP which operationalises the NCCP Master Plan within the context of agriculture outlines strategies to develop and promote

climate-smart agricultural practices with an emphasis on cropping systems.

There are indications that some interventions have been implemented by state agencies mandated within the framework of the NCCP to implement action plans to improve resiliency in cropping systems. However, the multiplicity of actors and agencies, means that tracking programmes and linking them to specific agencies and strategies outlined in NCCP/CAFSAP is a difficult task to undertake at the community level. The implementation of the NCCP is dependent largely on the programmes of MMDAs and MDAs. The multiple mainstreaming of the policy by the different agencies and departments means some details are lost. The assumption that the evaluation of the CAFSAP is the evaluation of the NCCP is also misleading to some extent. This notwithstanding, the study tried to assess the extent to which these strategies have been translated into real and implemented interventions at the smallholder farmer level.

The extent of smallholder farmers' access to AEAs was noted as critical since they form the bridge between farmers and policy makers. The study therefore examined farmer contact with AEAs; and the knowledge AEAs transfer to farmers particularly women smallholder farmers. Access to AEA services remain the most limiting factor to agricultural production, climate change literacy and adaptation. Analysis of farmer access to extension services shows that, only 20per cent of male farmers had access to extension services. This observation although minimal, represents an increase of 2per cent over the 2016 level. In the case of women, less than 10per cent received AEAs visits during the same period. The information in Figure 1 underscores the importance of agricultural extension to climate change adaptation. The number of male farmers receiving climate adaptation information from AEAs reduced from 18per cent at the baseline year to 14per cent in the current year. In the case of women, only 6per cent of those surveyed received climate adaptation from AEAs which is slightly higher than the 4per cent at the baseline year. Given the importance of information dissemination on climate change adaptation to smallholder farmers, there is the need for stakeholders to focus on improving access to advisory services.

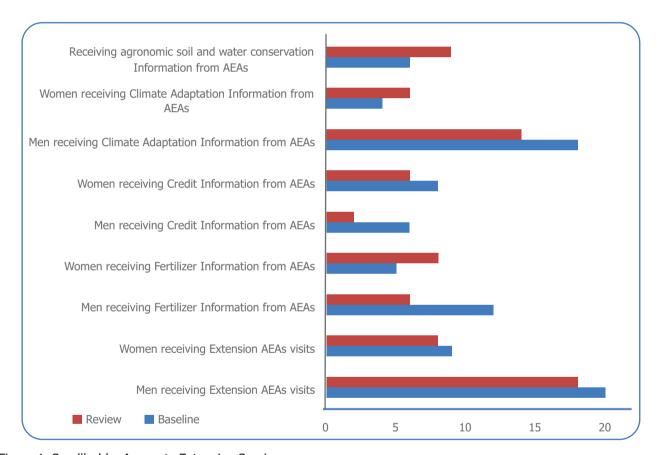


Figure 1: Smallholder Access to Extension Services

Our findings confirm what is already known about women's role in agriculture: despite the high participation of women in agriculture, support services including agricultural advisory services generally uses the male household head criteria for targeting. This approach has contributed to the exclusion of women in the provision of agricultural support services even though women have demonstrated the greater need for such services.

3.1.1c Support Water Conservation and Irrigation Systems

Even though Ghana may not be categorised as a water-stressed country, it is nonetheless confronted by variability in rainfall and agricultural water availability. Ghana's third communication to the UNFCCC categorise the transitional and guinea savannah zones of Ghana as locations with high risks of low rainfall, reduced minor season, erratic rainfall and long dry spells. This means developing water conservation and irrigation systems remains key to improving adaptive capacities of small-holder farmers majority of whom are women.

This recognition informs the CAFSAP strategy for the development of water conservation and irrigation systems in Ghana. The key actions are listed below:

- Promoting appropriate technologies for small-scale irrigation, water re-use and water harvesting (e.g. waste/water recycling, rainwater harvesting systems);
- ii. Improving watershed management around major rivers must be enhanced e.g. the Black Volta in Nandom-Lawra area;

- Ensuring District Assemblies take responsibility for the maintenance of the irrigation systems in their respective districts and expand irrigations systems for farming;
- iv. Supporting capacity building within communities for basic maintenance of dugouts and small-scale irrigation systems;
- v. Working with stakeholders, especially NGOs, to provide training to members of local communities on creation of buffer zones along the river banks avoiding farming in the banks of waterways, siltation and infill of rivers:
- vi. Promoting afforestation along the banks of waterways;
- vii. Promoting rainwater harvesting;
- viii. Providing incentives to encourage private sector investment in irrigation systems e.g. along the Black Volta to enhance crop production in the Savannah zones.

The key interventions to improve soil and water conservation and resilience in infrastructure have been implemented under the under-listed projects:

- Adaptation of Agro Eco-System to Climate Change (AAESCC).
- GIZ supported seed variety development programme.
- Sustainable Land and Water Management Project (SLWMP) jointly coordinated by MESTI, Wild Life and Forestry Commission, EPA, MoFA-Crop Services Department
- Transition towards Climate Smart Agriculture and Food Security

The SLWMP had both mitigation and adaptation dimensions. Interventions under SLWMP targeted smallholder farmers with support in land management, tree planting, soil fertility management and development of alternative livelihood systems especially in dry seasons. The SLWMP has also been working within forest reserves to promote conservation and thus contribute to reducing emissions.

The SLWMP intersects with the POWER Project by targeting smallholder farmers and focusing on the drier three regions of the North. The SLWMP covers 12 districts in Northern, Upper East and Upper West, including West Gonja, Mamprugu Mouaduri, Sawla Tuna Kalba and West Mamprusi in the Northern Region; Talinse, Bulsa South, Bawku West and Kasena Nankana in the Upper East Region; and Dafiama, Wa East, Sissala East and Wa West in the Upper West Region.

3.1.1d Risk Transfer and Alternative Livelihood Systems

The main concern with smallholder climate adaptive capacities in Ghana is the limited diversity of livelihood systems and the dependence on livelihood activities that are not resilient to climate variability. These concerns are well articulated in the NCCP, the National Climate Change Policy Action Programme for Implementation and the CAFSAP. The CAFSAP recognises that, where livelihoods are at risk and there is a threat to socio-economic survival and the tendency for people to adopt extreme measures in order to survive is very high. In such instances, adherence to Climate Resilient Sustainable Agriculture (CRSA) principles becomes difficult. To support risks aversion and adoption of alternative livelihood systems, the following are proposed under CAFSAP:

- Build and strengthen the capacity of extension officers in climate-smart agriculture to enhance support to farmers and fishermen;
- Promote capacity building for farmers and fisher-folk and build awareness on climate change issues;
- iii. Build capacity for community-level weather data collection, analysis and dissemination for agricultural planning;
- iv. Institute risk transfer schemes (e.g. insurance) against local supply changes, harvest failure or weather risk;
- v. Stem the tide of youth rural-urban migration to ensure sustainability of farming in the rural districts;
- vi. District assemblies must strengthen agricultural systems in their localities by formulating and implementing agricultural plans for the district going down to the communities;
- vii. Local authorities should create partnerships including traditional authorities to protect and sustain biodiversity;
- viii. use mass media channels especially radio and television to reach the farming communities with information to promote good agricultural practices and climatesmart socio-cultural practices.

3.1.1e Improved Post-Harvest Management

While low farm productivity remains a challenge among smallholder farmers in Ghana, post-harvest losses in many instances' accounts for loss of up to 40per cent of farm produce. The challenge of reducing post-harvest loses among farmers was central to the NCCP. MOFA's flagship programme, the CAFSAP seeks to improve the adaptive capacity of smallholder farmers.

The CAFSAP also mainstreams the core strategies outlined in the NCCP with the following outlined to improve post-harvest output management:

- i. Improve post-harvest capacity, e.g. storage and processing facilities and infrastructure;
- ii. Build capacity for recycling and conversion of agricultural waste;
- iii. Enhance investment in facilities for bulk storage of grains to assist farmers to sustain production and sell for good profit.

The strategies outlined in the CAFSAP to facilitate risk transfers and post-harvest management are relevant within the context of smallholder farmers and women in particular. This report has already stressed the need to enhance extension service delivery improving AEA-Farmer ratio and also providing capacity through in-service training for effective transfer of knowledge on climate resilient sustainable agriculture to farmers.

Our survey of the POWER Project communities shows that the districts are confronted with staffing challenges and in many instances, Directors have to step in to serve as AEAs. When there are AEAs, there is also the issue of capacity and competency on climate resilient sustainable agriculture (CRSA) and how to disseminate the concept and associated practices to farmers.

The relevance of the CAFSAP strategies for improving water conservation and access to irrigation system is underscored by the nature of agricultural constraints observed at the smallholder level. Figure 2 presents farmers' access to some of the services and support systems required for practice of CRSA. As expected, over 90per cent of farmers in the POWER Project communities rely solely on rain-fed agriculture. This data was collected three years after the Ghana National Climate Change Master Plan Action Programmes was completed and two years after the National Climate-Smart Agriculture and Food Security Action Plan developed. This means three year into the implementation of the five-year Climate Change Master Plan Action Programmes and two years into the implementation of the four-year CAFSAP, less than 10per cent of smallholder farmers across five regions of Ghana have access to irrigation facilities. The data also shows that, government or MOFA AEAs only reached 2per cent of farmers with information on CRSA, less than 10per cent have access to storage facilities and only 12per cent of smallholders receive support for agroprocessing.

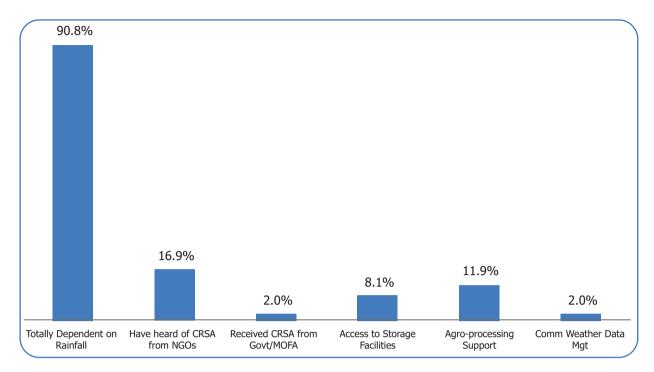


Figure 2: Smallholder Access to CRSA Support Systems

Under the GNCCP, communities were encouraged to form District Climate Smart Agriculture Platform (DCSAP) to perform local advisory and technical roles for multi-stakeholder engagements. Our household survey and group discussions in the communities pointed to the near non-existence of multi-stakeholder platforms.

The most limiting constraint to smallholder livelihood systems in Ghana is the lack of access to capital and the exclusion of smallholder farmers from formal lending systems. Capital constraints and limited integration of smallholder farmers in credit systems have worked against agriculture and affecting climate change adaptation efforts.

Data on participation in financial markets (Figure 3) across the POWER Project communities shows that, about 70per cent of women and 48per cent of men do not have access to credit.

Among men receiving credit, 20per cent rely on family and relatives while women who borrowed obtained the credit from NGOs (11per cent) and group-based lending.

Although both state and non-state actors acknowledge the importance of credit and access to technology in climate change adaptation, efforts to address credit constraints and the technological gap among smallholders have not been comprehensive enough. All the state agencies involved in the implementation of Ghana's climate change adaptation programmes do not have microfinance programmes targeting smallholder farmers directly. There are however financial intermediation services aimed at making farmers and women's groups credit-worthy so they are in the position to approach formal credit providers for loans.

Even though some government agencies claim this approach is working and producing results, the data does not support such claims as only 4per cent of men rely on formal lenders for credit. No woman or women's groups reported obtaining credit from formal lenders. This shows that the strategy of providing financial literacy training for smallholders so they can use the knowledge to borrow from formal financial institutions is both ineffective and unfavorable to women.

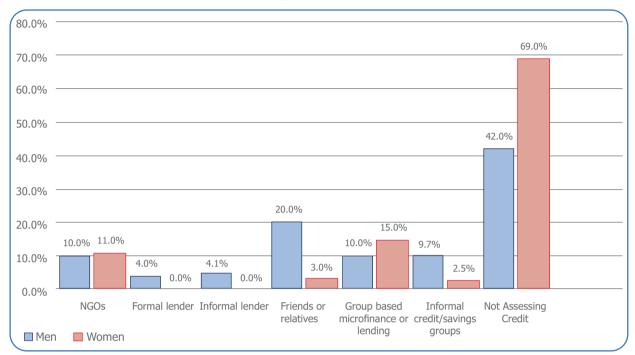


Figure 3: Smallholder Inclusion in Financial Markets

High dependence on forest resources especially for household fuel needs is one of the key drivers of deforestation and land degradation. The POWER Project categorises women's role of searching for firewood to meet household energy needs as Unpaid Care Work (UCW) which leads to time poverty and limits the involvement of women in high pay-off economic activities. In relation to climate change, reliance on firewood is both a precursor to deforestation and a limitation to adaptation. A precursor in the sense that reliance on firewood contributes to deforestation and land degradation. As a constraint to smallholder adaptation, the search for firewood takes time that women could otherwise have used to learn and implement climate resilient and sustainable agriculture practices. It is for these reasons that climate adaption efforts must address the issue of diversification of household energy needs.

The study of household energy sources during the field work phase of this review shows that firewood remains the key source of cooking fuel. Over 93per cent of households in the study area rely on firewood as energy for cooking (Figure 4). Other cooking fuel sources are rarely used. About 6per cent use charcoal. Only 0.2per cent of households use Liquefied Petroleum Gas (LPG). The reliance on firewood and charcoal means that about 98per cent of household cooking energy requirements depend on the forest and involves the cutting of trees.

AAG has been working to establish community woodlots and promote less reliance on firewood by promoting energy saving stoves for cooking. Even though ActionAid sees the promotion of alternative (to firewood) energy sources as a way to reduce UCW, the importance of such interventions for soil and water conservation and smallholder climate adaptation are immense. In the implementation of the NCCP and complementary action plans, it is important for government agencies to identify and partner non-state actors with programmes that reinforce the strategies outlined in the NCCP.

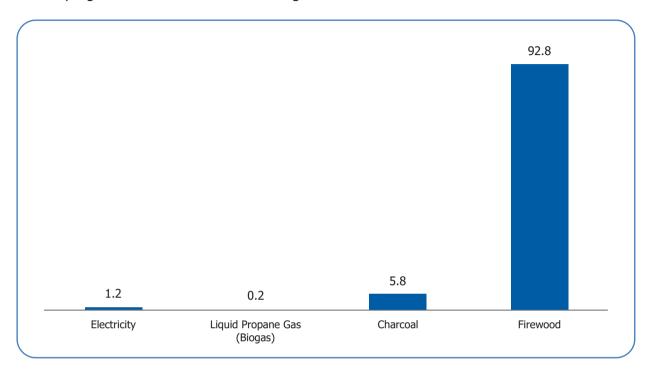


Figure 4: Household Cooking Energy in Power Communities

Although the NCCP, the master plan for implementation of the NCCP and the CAFSAP explicitly outlined plans to improve smallholder access to irrigation and support livelihood diversification among rural farm households, the documents remain largely silent on the specific activities that would bring about such outcomes. This has led to weak linkages between the policy objectives and programmes implemented.

3.1.1f Gender Perspectives and Smallholder Farmer Inclusion

Gender Equality is not discussed beyond the need to be gender sensitive. There is little or no effort to specifically target resources and interventions to sectors and livelihood systems suited to women. The Women in Agricultural Development (WIAD) in the CAFSAP was set-up as one of the seven technical directorates of MOFA. WIAD seeks to promote women's role in agriculture by promoting appropriate technologies for improved farming, micro and small entrepreneurship, better nutrition, and home economics. The document is however silent on how WIAD executes its mandate and what authority it exercises in terms of its ability to influence local government level actions.

On the subject of gender, the NCCP, operationalised as the National Climate Change Master Plan Action Programmes for Implementation outlined a comprehensive strategy for dealing with gender issues relating to climate change as follows:

"There is a need to highlight the specific ways in which gender issues can be mainstreamed in the context of climate change. This involves

- identifying targets of the mainstreaming process;
- evaluating climate change impacts on socioeconomic, sectoral and local development strategies and plans;
- awareness-raising and capacity-building to mainstream gender issues; evaluation of the mainstreaming process;
- and development of strategies and mechanisms for mainstreaming gender issues, including financial, economic and policy aspects."

The CAFSAP which is the transformation of the NCCP into programmes and activities appears to have toned down the strong gender emphasis in the NCCP. Mainstreaming appears to be the main challenge with the strategy for implementation of the climate change policy. The NCCP by design is implemented by multiple state agencies and actors, each required to mainstream or operationalise the policy within its organisational or institutional context. The apparent lack of emphasis on gender in the CAFSAP is an artifact of MOFA's mainstreaming of the NCCP and the Action Plan for Implementation.

Institutional Coordination Analysis All the policies that were reviewed have some institutional mechanisms to support smooth implementation. This section takes a close look at how effective those institutional frameworks of the policies especially for the NCCAS and the NCCP are.

The National Climate Change Adaptation Strategy

Institutions have been identified at each level to assume specific roles and responsibilities in the decentralised implementation of the NCCAS. Beside government institutions, a variety of stakeholders, including the private sector and civil society actors have been identified as implementing bodies. However, the extent to which the CSOs and private sector actors mentioned in the document are expected to support in the implementation of the NCCAS were not elaborated in the Strategy. It is understood that the implementing bodies will require capacity-building support.

The institution supervising the implementation of the NCCAS is the Ministry of Environment, Science, technology and innovation (MESTI) assisted at the coordination national level by the National Climate Change Steering Committee (NCCSC).

The Committee is responsible for providing strategic direction for the management of the NCCAS and its programmes. However, subnational level institutions are supposed to be the actual implementing entities. The sub-national level represented by MMDAs is a pivotal layer for the effective implementation of the Strategy. The MMDAs and their Environmental Committees, under the instruction of the NCCC, are supposed to prepare programmes and projects. The Assemblies are to be assisted by decentralised government departments, NGOs, CBOs, traditional authorities and the private sector to develop and implement detailed action plans.

The Town/Area level councils and their unit committees, assisted by local stakeholders, are to develop their own adaptation plans and submit to the District Assemblies for inclusion in the District plans. At the regional level, the Regional Coordination Councils (RCC) are supposed to monitor MMDAs' Strategies and liaise with the NCCC. It is recommended that the RCCs establish Climate Change Adaptation Monitoring Committees chaired by the Regional Planning Officer.

Though the implementation coordination structure outlined in the NCCAS looks elaborate, our consultations and observations indicate a number of institutional coordination gaps since the implementation of the NCCAS started in in 2010. The NCCSC which is supposed to provide supervisory role at the coordination level had its first committee meeting in 2014. There has not been effective coordination regarding the implementation of the programmes outlined in the NCCAS. The document did not clearly provide quidance to the CSOs and the MMDAs regarding how they could fully take advantage of the programmes outlined in the NCCAS. The MMDAs and CSOs have ALSO not been able to align their programmes with the NCCAS. The reasons include:

- inadequate capacities at the sub-national and non-state actor levels to understand and address climate change issues.
- ii. absence or little knowledge at the sub national level of the existence of the NCCAS.

- iii. Lack of guidance at the NDPC and MESTI levels on the implementation of the NCCAS and which indicators were to be monitored at the national level and which ones are to be specifically monitored and reported on at the sub-national level, taking into consideration the diversity of the assembly specific climate change adaptation programmes and projects.
- iv. There has not been a clear process for the adaptation actions by CSOs to align with the programmes outlined in the NCCAS. This limits how the adaptation efforts by non-state actors could be recognised at the national level.
- v. The environmental management committees at the MMDAs identified by the NCCAS to play a pivotal role at the assembly level are largely non-functional. Thus they have not been effective in developing and implementing climate change adaptation programmes as stipulated.
- Framework for Implementation of the NCCP and CAFSAP

The Environmental Protection Agency (EPA) is the technical implementing agency of the Ministry of Environment, Science, Technology and Innovation (MESTI). It serves as Ghana's focal point for regional and international climate change conventions and initiatives. MESTI is the host Ministry of National Climate Change Steering Committee (NCCSC), which is responsible for leading the inter-ministerial process of developing Ghana's National Climate Change Policy (NCCP). In addition to these formal government agencies, three principal multi-stakeholder platforms exist in Ghana and promote climate change advocacy and integration into development planning.

They are: the Ghana Climate Adaptation Network (G-CAN); the Ghana Climate Change, Agriculture and Food Security Platform and the Ghana Chapter of the Pan Africa Climate Justice Alliance (GH-PACJA), which is hosted by ABANTU for Development.

The NCCP and the National Climate Change Master Plan Action programmes for implementation were drafted by experts drawn from academia, CSOs, the private sector and specialised government agencies like EPA, Forest Commission, Crop Services and decentralised MMDAs. The Ministry of Environment, Science, Technology and Innovation (MESTI) is responsible for coordinating the policy. The NCCP is a key component of MESTI's programmes captured in the annual action plan with costed activities. Since the policy also serves as the blueprint for agencies and state actors in climate change, MESTI has the mandate to review and approve work plans from MDAs as the coordinating body. To facilitate its mandate, MESTI has established a secretariat for coordinating climate change issues.

There are 13 Ministries in addition to District Assemblies (DAs) that perform specific roles spelt out in the policy. All Ministries with decentralised agencies with clear mandates in the NCCP are provided training on how to mainstream the policy into their Medium-Term Development Plans (MTDP). A manual has been developed for mainstreaming training alongside a Monitoring Reporting and Verification (MRV) framework that can be found on the Ministry's website.

The Climate-Smart Agriculture and Food Security Action Plan (CAFSAP) has been developed by the Ministry of Agriculture to translate the policy objectives of the Master Plan into verifiable implementable actions with time lines.

The policy outlines eight programme areas in the Agriculture and Food Security priority issues. Since almost all of Ghana's Climate Change Adaptation strategies are tied to agriculture, the understanding of MOFA's operationalisation of the NCCP and related documents is key.

The CAFSAP is a vehicle for ensuring sustainability of agriculture and food systems within the context of climate change, with the Ministry of Food and Agriculture having oversight responsibility for the implementation of the action plan. The Environment and Climate Change Unit (ECCU) under the Directorate of Crops Services has direct responsibility for dissemination, capacity building, coordination and implementation of the Action Plan.

The ECCU works in close collaboration with the Ministerial Climate Change Task Force to ensure that relevant activities under the Action Plan are integrated into the annual work-plans and budgets of all national Directorates of the Ministry of Food and Agriculture. The Departments of Agriculture of the Regional Coordination Councils (RCCS) are responsible for technical support and coordination of activities of the Metropolitan, Municipal and District Assemblies (MMDAs) within their jurisdiction.

The Climate Change, Agriculture and Food Security (CCAFS) Platforms is the key link between government agencies and non-state actors on climate change adaptation. The core mandate of the CCAFS Platforms is to collaborate with public institutions and NGOs at the national level. Actions include sensitisation, policy advocacy, information gathering and dissemination, and promoting linkages with similar platforms in the sub-region.

This means that for NGOs and other non-state actors working on climate change and agriculture, the entry point in the national policy framework for climate change adaptation is the CCAFS Platforms.

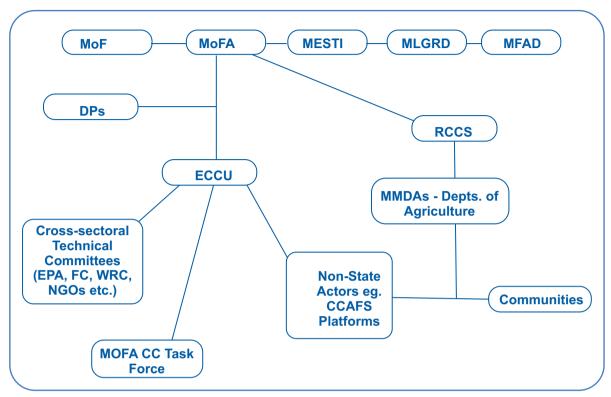


Figure 4: Operational and Institutional Framework for Implementation of the NCCP

At the District level, Departments of Agriculture of the Metropolitan, Municipal and District Assemblies (MMDAs) will be responsible for the implementation of on-the ground activities. The Departments of Agriculture also have the responsibility of collaborating and coordinating the activities of relevant CSOs to ensure synergy and achievement of economies of scale.

At the community level, community leaders including traditional authority and political leaders (Assembly Members) are responsible for leading community level activities and serve as liaisons between their communities and external actors. Sadly, the interface between local communities and the MMDAs is the weakest in the entire framework for implementation of the CAFSAP. There is little evidence of efforts to mobilise traditional and political organisation of local communities to lead CRSA interventions. Without elaborate community-level organisation of actors for implementation of climate resilient sustainable agriculture (CRSA), it is impossible to envisage any significant impact on local communities emanating from the current CSA action plan.

3.3. Implementation Challenges

A number of concerns have been noted with the wholesale adoption of Climate Smart Agriculture (CSA). Climate Smart Agriculture has tended to de-emphasise agro-ecology. Agro-ecological approaches are the most effective means of adaptation. By improving the health, structure and nutrition of soil through the use of compost, manure, mulching or green manures, they reduce erosion, improve plant health, and increase the ability of soil to absorb and retain water in times of drought and flooding. Ensuring that farmers have access to a diversity of locally-adapted seed varieties is also critical dealing with unpredictable climatic changes such as floods, late rains, or rising sea levels.

Other challenges relate to funding, poor knowledge and understanding of the NCCP and CAFSAP documents at several sub-national levels. Although the NCCP and derived action plans such as the National Climate Change Master Plan Action Programmes for Implementation and the CAFSAP have outlined programmes and activities to promote climate smart agriculture and resilience in smallholder farming systems, these programmes do not have detailed investment plans for financing the action plans. This has meant that the implementation of programmes within the framework of the policy depended largely on availability of funding or when the mandated agencies were able to secure financing for some aspects of the programmes. The main financing options for implementation of the various action plans have included:

 mainstreaming of the implementation of activities into the annual budgeting cycles of the responsible and collaborating institutions. This is where institutions with the conventional budgetary resources implement the proposed climate change actions and NCCP programmes as part of their routine mandate. As already indicated, mainstreaming has the advantages of ensuring the programmes become part of the agency mandate. In order to successfully merge two documents, some realignment and reorganisation would have to take place and, in some instances, the final document after mainstreaming differs markedly from the parent policy documents. An example with the mainstreaming of NCCP into the CAFSAP appears to be the minimisation of the relevance of gender issues.

- II. Another option for financing activities in the NCCP action plans has been to source climate funds. from initiatives such as the Green Economy Fund and the Clean Development Mechanism (CDM) are available.
- III. The third option has been to target donors and other non-state actors with specific project proposals. Organisations like the UNEP, UNDP, FAO, GEF, GIZ, DFTDA, DANIDA, SIDA, have interests in the broad thematic area of climate change. Proposals that align with thematic focus of those development organisations, tend to attract funding in many instances.
- IV. If policy makers and development agencies are to rely on international funding to implement actions plans in the NCCP, there would be the need for capacity building to enhance knowledge of where and how to source for climate funds for the implementation of action plan.

3.4 Funding for Climate Change Mitigation and Adaption in Ghana

Financial resources are required to enable countries adapt to the adverse effects of climate change. One of the key outcomes of the Paris Agreement is the mobilisation of \$100 billion a year by 2020 into the Green Climate Fund (GCF). This funding is to help developing countries to implement climate change mitigation and adaptation activities and to strengthen their national capacities to effectively and efficiently plan for, access, and manage international climate funds. Programmes in climate change require resources yet CSOs and private sector entities face challenges gaining access to funds. Nationally Appropriate Mitigation Actions (NAMAs) supports developing countries in implementing ambitious actions to mitigate greenhouse gas emissions. NAMAs is widely perceived as an important vehicle to implement the Nationally Determined Contributions (NDCs) under the Paris Agreement.

NAMAs was established by a multi-donor fund established by Germany and the United Kingdom in 2012. Denmark and the European Union joined in 2015 as additional donors. NAMAs has disbursed 262 Million Euros since inception, funding 16 projects in 3 calls for proposals. The fourth call for proposals ended on 31st October 2016 with no submission recorded from Ghana.

There are several bilateral and multilateral funds which the private sector can leverage in collaboration with the Government of Ghana. Although not exhaustive, the list provided here captures 15 of the possible funding avenues that Ghanaian CSOs and the private sector can access:

- i. Bio Carbon Fund
- ii. GEF Trust Fund Climate Change focal area
- iii. Clean Technology Fund (CTF)— Promote scaled-up financing for demonstration, deployment and transfer of low-carbon technologies with significant potential for long-term greenhouse gas emissions savings.
- iv. The Global Energy Efficiency and Renewable Energy Fund (GEEREF)—Funds for renewable energy and energy efficiency initiatives in developing countries.
- v. Forest Investment Program (FIP)provides indispensable direct investments to benefit forests, development and the climate.
- vi. Scaling Up Renewable Energy Program (SREP) funding window of the CIF, is empowering transformation in developing countries by demonstrating the economic, social, and environmental viability of renewable energy.
- vii. The Green Climate Fund (GCF)
- viii. AfDB Sustainable Energy Fund for Africa—The Sustainable Energy Fund for Africa (SEFA) is a multi-donor trust fund administered by the African Development Bank anchored in a commitment of USD 60 million
- ix. IFC Canada Climate Change Programme— The IFC-Canada Climate Change Program is a partnership between the Government of Canada and IFC to promote private sector financing for clean energy projects and to address climate change.
- x. Africa Climate Change Fund –For projects of USD 250,000 or above. Available for African governments, NGOs, research organisations based in Africa and regional institutions.

- xi. ClimDev-Africa Special Fund African countries of dedicated institutions, as well as NGOs, CSO, and CBOs.
- xii. DEG Deutsche Investitions- und Entwicklungsgesellschaft mbH Worldwide-Developing and emerging market countries for profitable projects that contribute to sustainable development goals.
- xiii. GEF Small Grants Programme— for NGO/CBO working in developing countries with project corresponding to GEF focal areas
- xiv. World Bank Carbon Funds and Facilities-CDM or JI-eligible project activities (also voluntary window mainly for forestry and agriculture-based projects) and AAU transactions

Despite the existence of the above funding opportunities, government, the MMDAs and civil society groups in Ghana face challenges accessing these funds. The challenges include lack of a dequate information on the funding opportunities and capacity issues relating to ability to develop proposals in line with the various initiatives. Government and non-state actors can support climate change adaptation by providing capacity development for local NGOs to enable them access grant opportunities in climate change adaptation.

3.4.1 Resource Mobilisation for Climate Change Mitigation and Adaptation in Ghana

The Green Climate Fund (GCF) is the largest multinational cash pool for financing climate action in developing countries. So far about \$10 billion has been pledged, with the U.S. alone promising \$3 billion has been pledged, with the U.S. alone promising \$3 billion.

Ghana is expected to raise \$310 million from the Green Climate Fund (GCF) in 2018 for the implementation of three climate change mitigation and adaptation programmes within the framework of the GCF Readiness Programme. Out of the \$310 million, \$100 million of the funding from GCF is a grant with \$210 million being a loan facility. The three projects to be funded are: The Accelerating Solar Action Programme; Resilient Landscapes for Sustainable Livelihoods Programme; and the Ghana Shea Landscapes REDD+ Project which have been designed by the Energy Commission, Environmental Protection Agency/Ministry of Food and Agriculture and the Forestry Commission respectively. The three projects form part of Ghana's programmes to tackle climate change under the Paris Climate Change Agreement. The GCF Readiness Programme, a two-year \$988,000 programme financed by the German government, will be implemented by the Ministry of Finance and the Ministry of Environment, Science, Technology and Innovation (MESTI) in partnership with the United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP) and World Resource Institute (WRI).

The government has put in place an elaborate system for the management and administration of the GCF. The Ministry of Finance has developed the Climate Change Finance Tracking Tools to help track climate finance and provide overview of climate finance landscape in Ghana for decision making. An operations manual has also been developed for the National Designated Authority (NDA) for the GCF Resilient Programme, to guide the day-to-day activities of the secretariat. A prioritisation tool has also been developed to provide guidance to the NDA and its Technical Advisory Committee to prioritise climate change project proposal for submission to GCF.

ECOBANK Ghana and the Social Investment Fund (SIF) have been trained to administer the GCF funds.

Most of Ghana's plans for climate change adaptation and mitigation are heavily dependent on climate finance, with the nation relying on international support in the form of finance, investment, technology development and transfer, and capacity building.

Ghana has been relatively successful in terms of securing funding from several bilateral and multi-national climate funds. Table 2 presents details of external funding Ghana has utilised over the last 12 years. The table contains information from climate change funds and no other sources of funding and complementary projects that may be open to government.

Over the period of 12 years, the country successfully applied to about 16 climate change mitigation and adaptation funding initiatives and secured over 113 million USD but only succeeded in getting less than 40per cent, 45.266 million USD disbursed over the period. Given the importance of funding for climate change adaptation investment, there is the need to widely circulate information about secured funding and the modalities for disbursing such funds. Such information should be made available to the general public, especially CSOs. There is also the need to share information on the toolkit develop to support the NDA in the prioritisation of proposals to the GCF. This would allow CSOs and the private sector to design programmes that respond to the priorities outlined in the various projects.

Table 2: Multilateral Funds Secured for Ghana's Climate Change Response Programs

Fund Type	Name of Project	Year	Amount (USD millions)	Disbursed (USD millions)
Multilateral	Caucasus Clean Energy Fund	2014	10	0.85
Multilateral	Increased resilience to climate change in Northern Ghana through the management of water resources and diversification of livelihoods	8.29	1.85	
Multilateral	Engaging Local Communities in REDD+/Enhancement of Carbon Stocks	2013	10.0	3.7
Multilateral	Enhancing Natural Forest and Agroforest landscapes Project	2014	30.0	12.95
Multilateral	Ghana Public - Private Partnership for the restoration of Degraded Forest Reserve	10.175	-	
Multilateral	Ghana Dedicated Grant Mechanism	5.965	-	
Multilateral	Reducing Degradation and Deforestation due to Mining in Forest Landscapes	2015	10.0	-
Multilateral	Energy Development and Access Project (formerly) Development of Renewable Energy and Energy Efficiency	2007	5.50	5.50
Multilateral	Ghana Urban Transport	2006	7.00	7.00
Multilateral	SPWA-CC Promoting of Appliance Energy Efficiency and Transformation of the Refrigerating Appliances Market in Ghana	2009	1.72	1.72
Multilateral	Preparation of Ghana's Initial Biennial Update Report to UNFCCC	2013	0.35	0.35
Multilateral	Enabling Preparation of Ghana's Fourth National Communication (NC4) and Second Biennial Update Report (BUR2) to UNFCCC	2016	0.85	-
Multilateral	Strengthening Ghana's National Capacity for Transparency and Ambitious Climate Reporting	2017	1.10	-
Multilateral	Integrating Climate Change into the Management of Priority Health Risks	2010	1.72	1.72
Multilateral	Promoting Value Chain Approach to Adaptation in Agriculture	2009	2.50	2.50
Multilateral	Readiness Preparation Grant	2009	8.6	7.126
			113.77	45.266

3.5 Ghana's Implementation of the Malabo Declaration Under CAADP

In 2003, Heads of State and Government of Africa convened in Maputo to adopt the Comprehensive Africa Agricultural Development Programme (CAADP). The Maputo Declaration set broad targets of 6 percent agricultural GDP growth annually, and the allocation of at least 10 percent of public expenditures to the agricultural sector., African governments were to demonstrate ownership of the CAADP implementation processes by developing home-grown framework quiding policies, strategies and actions for agricultural development and transformation within the period 2003 and 2013. This was necessary as it would allow for the mobilisation and alignment of multi-stakeholder partnerships and investments around National Agriculture and Food Security Investment Plans (NAIPs) that have been developed through the CAADP process. After a decade of CAADP implementation, African Union leaders reiterated their commitment to agriculture by adopting the Malabo Declaration on Accelerated Agricultural Growth and Transformation (ref.: Doc. Assembly/AU/2(XXIII)) in June 2014 in Malabo, Equatorial Guinea. The seven (7) Malabo Commitments were translated into seven (7) thematic areas of performance:

- Re-committing to the Principles and Values of the CAADP Process;
- ii. Enhancing investment finance in agriculture;
- iii. Ending Hunger in Africa by 2025;
- Reducing poverty by half, by 2025, through inclusive agricultural growth and transformation;
- v. Boosting intra-African trade in agricultural commodities and services;

- vi. Enhancing resilience of livelihoods and production systems to climate variability and other related risks; and
- vii. Strengthening mutual accountability to actions and results.

Among the key provisions, African leaders committed to include Mutual Accountability to Results and Actions through tracking, monitoring and reporting on progress of implementation in achieving the provisions of the Malabo Declaration. This report presents Ghana's status of progress in the implementation of the Malabo Declaration relative to some of its neighbors. Since the key indicator of success depends on the demonstration of ownership and mainstreaming the policy into national plans and programmes, this report will also highlight how the Malabo Declaration under CAADP has been implemented in Ghana. The review would rely on data on Ghana's performance based on some of the 23 performance categories (T) and 43 indicators © that have been defined, for the seven (7) thematic areas of performance.

Based on the CAADP Results Framework 2015-2025 and the Malabo Declaration specific goals and targets, the African Union Commission (AUC) in collaboration with the New Partnership for Africa's Development (NEPAD) developed Strategic Guidelines to establish the review mechanism for the Biennial Reporting that was further endorsed by Member States. This section is divided in two parts. In the first section there is an overview of Ghana's performance in the implementation of the Malabo Declaration under CAADP. Where there is data, comparisons are made with some of Ghana's West African neighbors and partners.

The second section would be devoted to examining Ghana's internal operationalisation of the Malabo Declaration and how these translate into support systems for smallholders across the country. Ghana started implementing the fiscal decentralisation policy which required funding for agencies to be transferred to the Regional Coordinating Councils (RCCs). This means that programmes and budgeting were done at the district level. This also means that CAADP programs in Ghana are mainstreamed in the original mandates of cognate agencies and entities tasked with implementation of policies. Ghana's CAADP processes therefore involved the mainstreaming of the programme into the Medium-Term Agricultural Investment Programme (METASIP, 2011 – 2015). Programmes and budgets relating to the CAADP are therefore implemented at the District level through the METASIPs.

3.5.1 Overview of Ghana's Performance on Implementation of the Malabo Declaration

The first indicator used in assessing Ghana's implementation is the overall country progress for implementing the Malabo Declaration for Agriculture transformation in Africa. This is a composite measure of commitment to the programmes of the Malabo declaration and is assessed against the 2017 Benchmark of 3.94 out of 10 which is the minimum score for a country to be on track for implementing the Malabo Declaration.

Figure 5 presents the overall performance of 5 West African countries of strategic importance to Ghana. In order for a country to be on track towards the achievement of goals set under the Malabo Declaration, it had to exceed the benchmark.

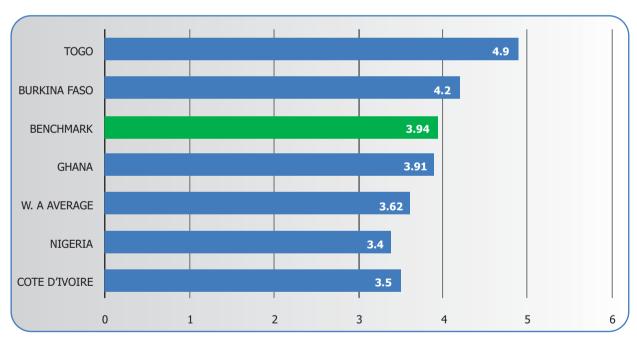


Figure 5: Overall progress for implementing the Malabo Declaration for Agriculture transformation in Africa Source: Author, Based on MOFA-Ghana /AU Assembly Data, 2018.

The average West African score for implementation of the Malabo Declaration is 3.62 which indicates that the region is not on-track to meeting the CAADP/ Malabo commitments when assessed against the 3.94 benchmark for 2017. According to the Inaugural Biennial Review Report of the African Union Commission on the Implementation of the Malabo Declaration, Ghana is not on track in terms of the implementation of the Malabo Declaration (AU Assembly, 2018). Ghana scores 3.91 which is above the West African Average but below neighboring countries like Togo (4.9) and Burkina Faso (4.2). Ghana however performs better than the Cote d'Ivoire (3.5) and Nigeria (3.4). Among the 14 West African countries entered for the review, only 5 are ontrack and these include Burkina Faso, Cape Verde, Ghana, Mali and Togo. Ghana is included as one of the countries on track because it missed the 2017 benchmark by just 0.03 of a point. Nonetheless, the performance of Ghana is worrying given its strategic position in the sub-region.

Because AU Member countries are required to own the CAADP processes and align it to their own strategic and long-term policy goals, inter-country comparisons are only possible with few indicators. Each country is virtually evaluated against its own set objectives which are aligned to the CAADP goals. That notwithstanding, qualitative or normative arguments regarding the relevance of one country's indicators and performance against another is not out of place.

Table 3 presents an overview of the performance of Ghana in relation to achievement targets set under the various themes within the CAADP programme.

The country performs strongly in five areas including CAADP Process Completion (57per cent), inclusive institutionalised mechanisms for mutual accountability; peer review (94per cent); and 5per cent in prevalence of undernourished and wasting children under 5 years of age respectively.

Areas of poor performance included public spending on agriculture, intra-regional trade facilitation, agricultural growth, value added productivity of labor and agricultural land under sustainable management practices. Out of 10per cent, public agriculture expenditure as a share of total public expenditure is 6per cent while value in intra- Africa trade of agricultural commodities and services declined by 4.6 in the period under review. Perhaps the area that should be of concern is the percentage of agricultural land under sustainable management practices. Ghana records 0.04per cent under this critical area. Ghana's score is an indication that all the programmes outlined to improve sustainable land management under NCCP or other agricultural policy documents have not vielded the desired results.

In the wake of climate change and the numerous policy documents drafted to support and improve the adaptive capacities of smallholder farmers, one would have thought that Ghana would score high in the areas of soil and water conservation. The fact that policies and programmes appear not to reflect in growth of land under sustainable management may signal a need to review the strategies used or speed up levels of implementation of the strategies.

Table 3: Performance of Ghana Under CAADP

CAADP AREA	Ghana's 2017 score (per cent)	Evaluation
CAADP Process Completion	57.0	Strong
Evidence-based policies, supportive institutions and corresponding human resources	87.0	Strong
Inclusive institutionalised mechanisms for mutual accountability and peer review	94.0	Strong
Population undernourished	5.0	Strong
Prevalence of wasting among children under 5 years old	5.0	Strong
Public agriculture expenditure as a share of total public expenditure	6.0	Weak
Annual growth of the agriculture value added (agricultural GDP)	3.6	Weak
Increase of the value of intra - Africa trade of agricultural commodities and services	-4.6	Weak
Increase of agricultural value added per agricultural worker	1.1	Weak
Agriculture land under sustainable land management practices	0.04	Weak

Source: Author, based on MOFA-Ghana/AU Assembly Data, 2018.

Despite not having uniform processes under CAADP across Member states and allowing for the use of uniform indicators, it is still possible to draw lessons from the processes adopted by other Member Countries under CAADP. Lessons from neighboring countries and those of strategic trade partners may be useful. Ghana's CAADP processes appear generic and lacks specific focus on Gender and Smallholder Inclusiveness. In the case of Burkina Faso for example, the focus areas include response to spending needs on resilience building initiatives from the government budget. Thus from the onset, there is emphasis on resilience from a budgeting, monitoring and evaluation perspective. The focus on gender in relation to Burkina Faso's CAADP strategies is also more prominent. Recognising access to productive resources as a limiting constraint to women smallholder farmers, the country focuses on this area and develops an indicator for targeting women's access to land, "percentage of rural women have access to productive assets in agriculture (empowered)." Programmes, activities, budgets and an M&E framework are developed to track progress towards improving women's access to productive resources.

Under its CAADP Malabo Declaration strategies, Togo explicitly mentions women in one of the focal areas under its programme "men and women engaged in agriculture having access to financial services." Togo also has one inclusiveness focus in terms of promoting smallholder access to agricultural extension services "farmers having access to agriculture advisory services."

In the case of Ghana however, there is no mention of gender, women or smallholder farmers in all the 10 focal areas under CAADP. Women's lack of access to farmland, agricultural advisory services and agricultural finance are real challenges in Ghana as much as Togo and Burkina Faso. The emphasis on women and smallholder farmers as a focal area at the national programme level is problematic. It is not enough to have a focus on smallholders and gender at the activity or community levels. If gender and smallholder inclusiveness are not explicitly operationalised within the context of the overall goal, the focal areas, the items of budgets and the M&E framework, it is difficult to see how discretionary inclusion of women and smallholder's aspirations at the activity level would address their needs.

3.5.2 Country Scorecard for implementing Malabo Declaration

Regarding the composite performance measure of the implementation of the Malabo Declaration, Ghana scored 3.91 out of 10 and missed the benchmark to be on track by 0.3 of a point. Based on the composite indicator alone, it is not possible to understand what accounts for Ghana's poor performance in implementing the Malabo Declaration on Agriculture transformation in Africa. Ghana's scorecard detailing how the country performed under various categories of the 7 Malabo commitment areas is presented in Table 4. Ghana is on track in 4 out of 7 Malabo commitment areas, including re-committing to CAADP process, halving poverty through agriculture by 2025, boosting intra- African trade in agriculture commodities and mutual accountability for actions and results. The commitment areas for which Ghana is off-track include those aimed at enhancing resilience to climate variability, ending hunger by 2025 and enhancing investment finance in agriculture.

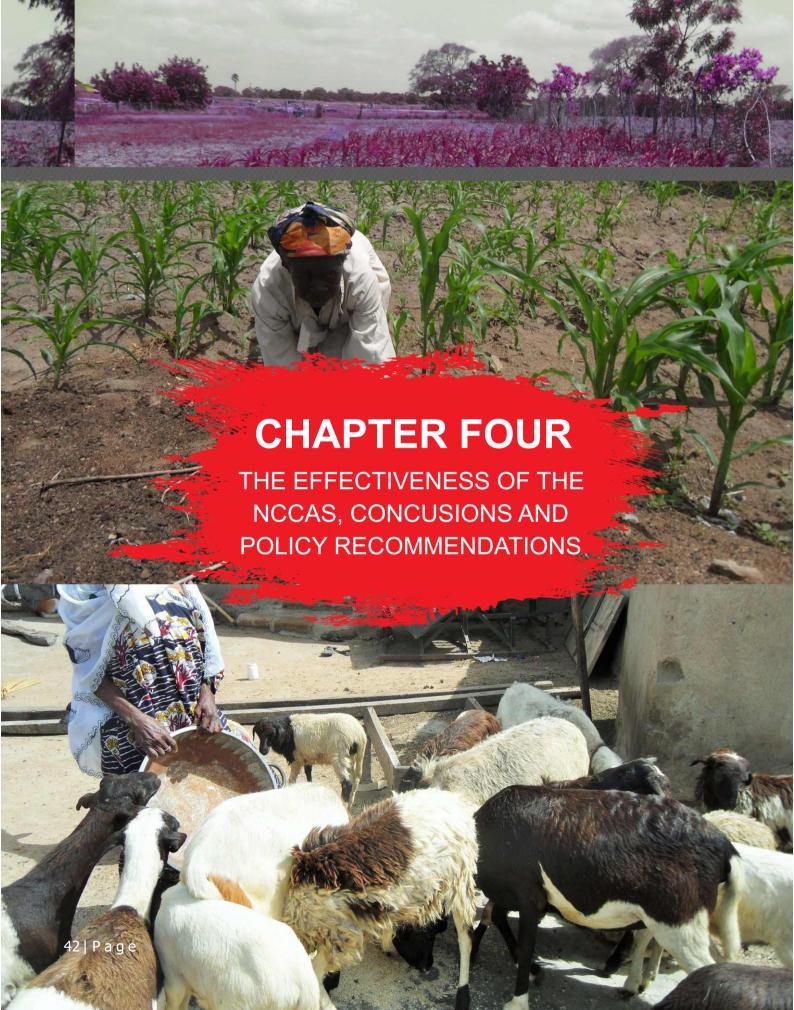
Under the commitment area of enhancing investment finance in agriculture, Ghana scores 8.7/10 for public spending in agriculture. Under the CAADP commitments, member countries were to spend at least 10per cent of their budgets on Agriculture. Ghana spent only 6per cent of its budget on agriculture for the year under review. The country also scores 0.0 for enhancing access to finance for agriculture while data on domestic and foreign private sector investment in agriculture, agribusiness and agro-industry are non-existent. More troubling is Ghana's performance regarding its commitment to enhancing resilience to climate variability. Ghana scored 0.04 out of the 2.0 minimum required and 7.1 for investment in resilience building out of a minimum of 10.0 required to be on track. If Ghana's spending on resilience building is viewed against the fact that only 0.04per cent of agriculture land is under sustainable land management practices, then the degree of Ghana's unpreparedness in terms of adaptation to climate change can be better understood.

Table 4: 2017 Ghana Scorecard for implementing Malabo Declaration

Mal	Malabo Commitments Areas (T)	<u>-</u>				Commitments Categories (C)			
Š	ltem	T-score out of 10	Mani-mum for 2017	T-progress	No.	Item	C-score out of 10	Mani- mum for 2917	C-Progress
н	Re-committing	6.87	3.33	On-track	PC 1.1	Completing National CAADP Process	5.71	3.33	On-track
	to CAADP Process				PC 1.2	Establishing CAADP based Cooperation, Partnership & Alliance	6.15	3.33	On-track
					PC-1.3	Establishing CAADP based Policy & Institutional Review/Setting Support	8.73	3.33	On-track
7	Enhancing Investment Finance in Agriculture	4.33	6.67	Not on track	PC-2.1	Public Expenditures in Agriculture	8.65	10.0	Not on track
					PC-2.2	Domestic Private Sector Investment in Agriculture, Agribusiness, Agro Ind.	1	1	0.0
					PC-2.3	Foreign Private Sector Investment in Agriculture, Agribusiness, Agro-Ind.	-	1	0.0
					Pc-2.4	Enhancing access to finance	0.0	3.33	Not on track
m	Ending Hunger by 2025	1.32	3.71	Not on track	PC-3.1	Access to Agriculture inputs and technologies	5.90	5.53	On track
					PC-3.2	Doubling agricultural Productivity	0.72	1.00	Not on track
					PC-3.3	Reduction of Post-Harvest Loss	0.00	1.00	Not on track
					PC-3.4	Strengthening Social Protection	0.00	10.0	Not on track
					PC-3.5	Improving Food security and Nutrition	3.33	1.00	On track

	×				~				~			
Not on track	On track	Not on track	Not on track	Not on track	On track	Not on track	Not on track	Not on track	On track	Not on track		
3.25	1.0	1.00	1.00	1.00	1.00	2.00	10.00	1.00	3.33	10.0		
2.07	10.0	0.00	0.00	0.00	2.22	0.04	7.13	0.00	9.44	9.91		
Sustaining Agricultural GDP for Poverty Reduction	Establishing Inclusive PPPs for commodity value chains	Creating job for Youth in agricultural value chains	Women participation in Agribusiness	Tripling Intra-African Trade for agriculture commodities and services	Establishing Intra-African Trade Policies and institutional conditions	Ensuring Resilience to climate related risks	Investment in resilience building	Increasing country capacity for evidence based planning, impl. and M&E	Fostering Peer Review and Mutual Accountability	Conducting a Biennial Agriculture Review Process		
PC-4.1	PC-4.2	PC-4.3	PC-4.4	PC-5.1	PC-5.2	PC-6.1	PC-6.2	PC-7.1	PC-7.2	PC-7.3		
On track				On track		Not on track		On track				
2.06				1.00		00.9		4.78				
3.02				1.11		3.59		6.45			3.91	
Halving poverty through Agriculture by 2025				Boosting Intra- African Trade in Agriculture Commodities		Enhancing Resilience to Climate Variability		Mutual Accountability for Actions and Results			Overall Country Score	
4				ru.		9		7				

Source: Adapted from 2017 progress report to the AU Assembly, 2018.



4.1. In this section, there is a discussion about the effectiveness of Ghana's National Climate Change Adaptation Strategy implemented since 2010. The section then draws some conclusions and makes policy recommendations for the way forward. These are concrete actions that can be taken by government and CSOs including AAG to support the development of resilient farming systems for smallholder and women farmers.

4.2 Effectiveness of the Implementation of the NCCAS and the NCCP

The review covers the effectiveness of the two policy documents namely the NCCAS and the NCCP. Effectiveness is the degree to which objectives are achieved and the extent to which targeted problems are solved. By extension, effectiveness is the capability of producing a desired result or the ability to produce desired output. When something is deemed effective, it means it has an intended or expected outcome and gives deep and vivid impression. Key questions such as:

- i. What were/are the main objectives that the NCCAS and the NCCP sought/seeks to achieve?
- ii. How have these objectives been realised so far?

The NCCAS (2012) and the NCCP (2014) have both seen a minimum of five (5) years of implementation. It is therefore appropriate to assess the extent of implementation to ascertain the effectiveness of their implementation. The following indicators were used in the assessment:

 Mobilisation of financial of resources (both domestic and international) to address adaptation actions in the two key policy documents: The financing mechanism of the NCCAS and the NCCP lies heavily on international sources to implement the 10 programmes identified by the NCCAS. The 10 programme areas of the NCCAS have been designed broadly and flexibly to accommodate several projects. However, only 4 projects have directly been funded internationally from the NCCAS since 2010. These funding sources include the government of Japan, the Adaptation Fund, the Global Environment Facility (GEF) and IFAD. Domestically, no direct finance has been mobilised to address climate change adaptation programmes from the NCCAS and the NCCP. Domestic support has mainly been as counterpart funding.

Domestic budget allocation for adaptation actions especially programmes that target smallholder rural farmers: linked to point one above is the government of Ghana's domestic effort in terms of direct budget support for climate change adaptation actions/programmes from the NCCAS and the NCCP. The review indicates that, government's direct budgetary support for climate change adaptation has so far been very abysmal. Results from the field studies for this report indicate that small holder farmers and women have not received direct interventions that could potentially support their livelihood activities.

- Capacity building initiatives associated 3. with the implementation of the policy to ensure continuity and sustainability of the programmes/activities in the policies: conscious capacity building initiatives in climate change adaptation contribute to reducing the vulnerabilities of local populations to climate change impacts. Once local capacities are built, communities are empowered to undertake innovative initiatives to address climate change. So far, capacity building for local communities including small holder farmers that are linked to the implementation of the NCCAS and the NCCP in the study areas is limited.
- 4. Functional institutional coordination mechanism to serve as a moving vehicle for the implementation of the policies: comprehensive institutional structures have been set up to implement the NCCAS and the NCCP. The structures (as reviewed in this report) define clear roles and responsibilities for various actors including local assemblies. However, these coordination mechanisms that support the implementation of the two key policy documents have largely remained static and ineffective. There has not been any proper functional coordination mechanism that link the national structures with subnational structures including local communities for the implementation of the NCCAS and the NCCP, even though this is clearly defined in the documents.

4.3 Main Conclusions and Policy Recommendations

The NCCAS remains a very important document for climate change adaptation in Ghana looking at the 10 prioritised programme areas identified. However, the information including the programmes in the NCCAS need to be revised or updated to address specific vulnerabilities and adaptation needs of local communities, especially small holder farmers who constitute a greater proportion of Ghana's population. Climate change is real and interventions to addressing it must be inclusive targeting all categories of persons especially those in underserved communities.

Main recommendation: the NCCAS should be revised/updated to address current adaptation needs and vulnerabilities of small holder farmers. The revision should be designed to synchronise the issues of the NCCAS with the adaptation priorities of the Nationally Determined Contributions (NDCs) of the Paris Agreement. This will ensure synergies and translate the NDCs into practical actions at the local community levels in Ghana. This will in turn facilitate a process of aligning the NCCP and NCCAS with the Nationally Determined Contributions (NDCs) of the Paris Agreement. Commitments in the Sustainable Development Goals (SDGs) could also benefit in terms of addressing implementation gaps especially on issues related to small holder and women farmers.

 Knowledge of national policies for climate change adaptation remains low despite the implementation of national programmes seeking to improve climate literacy. In the first instance, the NCCP is highly technical in some aspects. It therefore has to be adapted to meet the learning needs of local actors and stakeholders.

Main recommendation: Improve knowledge of key stakeholders especially the AEAs and small holder farmers in climate change adaptation. In order to improve climate literacy, it is necessary to develop simplified versions of the NCCP and leaflets highlighting the practical aspects of the policy. Civil Society groups may support this effort by disseminating aspects of the NCCP programmes in their programme areas and constituencies.

- a. To improve policy literacy, there is a need for greater engagement with the media to sensitise both the public and private sectors of society about the policy.
- b. The District Assemblies should use information vans to sensitise communities on climate change and stress the existence of policies and programmes to support smallholder and women farmers.

There is also a need to translate policies into local languages to broaden the user base of the policy

 Limited number of agriculture extension officers to support information dissemination and education on climate change at the local level. It is not possible to achieve climate literacy especially among a huge population of farmers without well-informed extension services. From the survey, it became obvious that a significant proportion of AEAs had limited knowledge of climate change and climate adaptation approaches. Many AEAs currently engaged by the MOFA, were trained in an era when climate change impacts and adaptation strategies did not form part of the curriculum. It is therefore necessary to provide in-service training and refresher courses to update the knowledge of AEAs in climate resilient and sustainable agriculture.

Main recommendation: Conscious and targeted programmes/initiatives to build capacities at the community level on climate change adaptation are needed. MDAs and MMDAs could partner with CSOs to develop capacities at the local level. CSOs in Ghana largely work with communities at the local level. Therefore, they have the experience in identifying the capacity needs and gaps of their constituents. They could initiate in-service training for AEAs in collaboration with the MOFA.

4. Institutional structures provided in the two policy documents are very comprehensive. However, institutional coordination since implementation of the policies started seem to have remained weak. Again, no proper conduit has been provided for the adaptation actions by the CSOs to align with the programmes outlined in the NCCAS. This makes it extremely difficult for the adaptation efforts by non-state actors to be adequately recognised at the national level.

The environmental management committees at the MMDAs identified by the NCCAS to play a pivotal role at the assembly level are largely inactive and thus ineffective in developing and implementing climate change adaptation programmes as stipulated.

Main recommendation: Update the NCCAS to provide clear roles for CSOs and other non-state actors to function properly at community level. The update should also provide channels for CSOs to partner properly with government institutions to addressing the adaptation needs of the local people.

Also, the environmental management committees at the assembly level should be activated to serve as training, education and awareness hub for climate change issues at the local levels. This is a structure that the CSOs could resource and partner with to deliver climate actions at the community level.

5. Gender issues are widely covered in both the NCCAS and the NCCP. Gender is covered as an objective and also as a programme activity. For instance, under the gender focus area in the NCCP, various policy actions have been outlined for implementation. A Gender Action Plan was also developed but there is insufficient evidence of implementation. Hence the need to strengthen implementation of the actions and develop effective gender monitoring and evaluation systems.

Main recommendation: If there is a gender action plan (GAP) for climate change that prioritises adaptation needs for women and other vulnerable groups, it must be popularised as a matter of urgency. It must also be implemented taking into account the diversity of the gender issues as well as the diversity of actors in the gender landscape in Ghana. The process should also be inclusive and well-coordinated.

Weak Monitoring and Evaluation System: Both the NCCAS and the NCCP have sections that address M&E. To date, it does not seem that any evaluations have been done on the two policy documents in terms of effectiveness of implementation of the programmes outlined. Both the NDPC and MESTI from the onset of the implementation of the NCCAS did not provide guidance on which indicators were supposed to be generally monitored across board and others to be specifically monitored and reported on at the sub national level, taking into consideration the diversity of the assembly specific climate change adaptation programmes and projects.

Main recommendation: the implementation period for the NCCAS ends in 2020. Thus it is recommended that the EPA and MESTI conduct a terminal evaluation to identify successes, gaps and lessons learnt.

7. Budgeting: Government's domestic effort in terms of direct budget support for climate change adaptation actions/programmes from the NCCAS and the NCCP has so far been very abysmal.

Ghana's climate change adaptation strategy is not backed by funding commitments. Budgets are not allocated for the implementation of activities outlined in the various policies despite clarity regarding which agency should lead in the implementation of the activities. Climate adaptation programmes are therefore implemented when the concerned agencies can secure donor funding or through mainstreaming by other agencies.

Main recommendations: A comprehensive fundraising and campaign strategy should be developed to secure concrete funding for the implementation of the NCCAS and NCCP programmes. CSOs in Ghana are also encouraged to advocate for the allocation of national budgets to climate adaptation on a consistent basis. CSOs tracking the climate change fund and other resources for supporting climate adaptation should engage more with the general public and share their resources including information. This would compel duty bearers to engage more with actors.

MOFA also needs to incorporate climate change issues into budgets submitted within the framework of sustainable agriculture. This would ensure that funding streams are created for projects targeted at improving smallholder adaptation to climate change.

4.4 Other Recommendations

Conclusions that support the objectives of this assignment include:

1. Some non-state actors are interested in holding government accountable on

policies, programmes and funding for climate change adaptation and mitigation. This study by AAG should constitute the basis for actively engaging government on the NCCP, National Adaptation Plans, (NDPs) and National Action Plans (NAPS). Civil Society groups including ActionAid need to intensify their watchdog roles by organising annual stakeholder forums to educate other CSOs, and youth groups on the NDCs and NAPS process. This way, an alliance can be forged to consistently review the implementation of the various climate change programmes against stated goals and deliverables.

- 2. The Climate Change, Agriculture and Food Security (CCAFS) Platforms which serve as the key link between government agencies and non-state actors on climate change adaptation exist in policy but barely functional in practice. Stakeholders need to ensure that these platforms are properly constituted and activated in order to create the channel of communications and collaborations on climate change adaptation.
- Platforms for climate change must exist at all levels and be functional especially at community levels. There is a need for verifiable sources of funding towards providing capacity development for climate change platforms.

4. Climate Resilient Sustainable Agriculture offers better opportunities for improving adaptive capacities of smallholder farmers than the CSA approach promoted by government. For example, an area under green or organic manure is a more sustainable measure of soil improvement than per capita fertiliser application. Unfortunately, interest on sustainable agriculture is decreasing and there are few NGOs pushing for such approaches. AAG would have to provide leadership in this respect given its knowledge and experience in promoting CRSA.

4.5 Recommendation on the CAADP Processes

Ghana's best performance in the implementation of the CAADP processes are in aspects that relate to administration. A framework for peer review and completion of the processes in an administrative sense have been developed. Based on Ghana's scorecard in the implementation of the CAADP, the following areas must be considered:

- 1. Gender emphasis in Ghana's the CAADP process is weak. Hence there is the need for clear goals and investment to support women's access to credit, farm implements, and agricultural extension services.
- 2. Increase the share of agricultural land under sustainable land management practices from the current low level of 0.04 percent. This would require investment in soil and water conservation infrastructure, improvement in access to advisory services and credit for smallholder farmers and engagement of stakeholders especially non-state actors working on climate change.
- 3. Increase public agriculture expenditure as a share of total public expenditure to the Malabo Declaration target of 10 percent. Objectives such as the percentage of national budgets allocated and spent on providing credit, tractor/bullock services, training in agro-processing and post-harvest management for women should be emphasised in line with thematic area four (v) of the CAADP Malabo Declaration.
- 4. Do more to facilitate and promote intra-regional African trade in agricultural commodities and services with emphasis on mainstreaming gender specific policies to ensure economic empowerment of women.



Intergovernmental Panel on Climate Change, Intergovernmental Panel on climate change fifth assessment report (IPCC, AR5), 2013

National Development Planning Commission, Ghana Shared Growth and Development Agenda (GSGDA) II, 2014

Ministry of Food and Agriculture, Food and Agriculture Sector Development Policy (FASDEP) II, 2009

Ministry of Food And Agriculture, Medium Term Agriculture Sector Investment Plan (METASIP), 2011

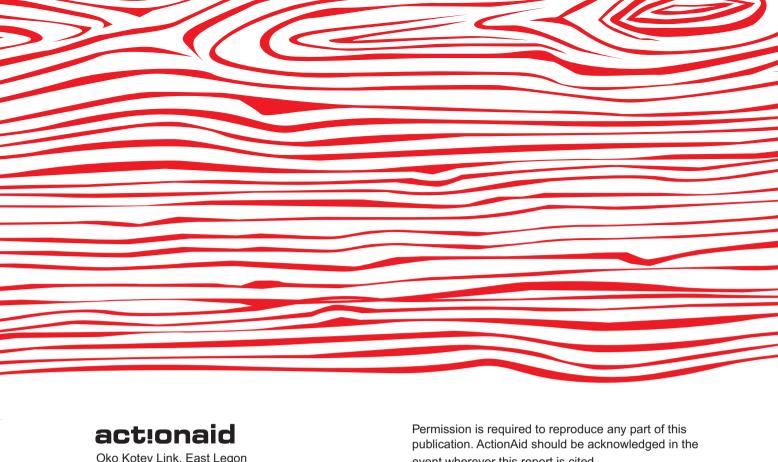
Ministry of Environment, Science, Technology and Innovation, National Climate Change Adaptation Strategy (NCCAS), 2012

Ministry of Environment, Science, Technology and Innovation, National Climate Change Policy (NCCP), 2013

Ministry of Environment, Science, Technology and Innovation, National Climate Change Master Plan Action Programmes for Implementation, 2015

Ministry of Food And Agriculture, National Climate-Smart Agriculture and Food Security Action Plan, 2016

ActionAid POWER Project Baseline Report.



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