

**GOVERNANCE OF CLIMATE CHANGE POLICIES IN GHANA'S COCOA
SECTOR: PERSPECTIVES FROM INTEGRATED PUBLIC GOVERNANCE
THEORY**

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LIST OF ABBREVIATIONS

AF	Adaptation Fund
ASAP	Adaptation for Smallholder Agriculture Programme
CAA	Cocoa Abrabopa
CCD	Climate Compatible Development
CERSGIS	Centre for Remote Sensing and Geographic Information Services
CMC	Cocoa Marketing Company
COCOBOD	Cocoa Board
COP	Conference of the Parties
CPC	Cocoa Processing Companies
CPCL	Cocoa Processing Company Limited
CPESDP	Coordinated Programme of Economic and Social Development Policy
CREMAs	Community Resource Management Areas
CRIG	Cocoa Research Institute of Ghana
CSC	Climate Smart Cocoa
CSD	Cocoa Services Division
CSIR	Council for Scientific and Industrial Research
CSOs	Civil Society Organizations
CSR	Corporate Social Responsibility
CSSV	Cocoa Swollen Shoot Virus
DFID	Department for International Development
EPA	Environmental Protection Agency
ERP	Emissions Reduction Programme
EU	European Union
FAO	Food and Agricultural Organization

FAOSTAT	United Nations Statistics Division of the Food and Agriculture Organization
FC	Forestry Commission
FGD	Focus Group Discussion
FIP	Forest Investment Programme
FORIG	Forestry Research Institute of Ghana
GAEC	Ghana Atomic Energy Commission
GCCSFA	Ghanaian Cocoa Coffee Sheanut Farmers Association
GCFRP	Ghana Cocoa Forest REDD+ Programme
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Green House Gas
GIPC	Ghana Investment Promotion Centre
GoG	Government of Ghana
GSGDA	Ghana Shared Growth Development Agenda
HFA	Hyogo Framework for Action
ICCO	International Cocoa Organisation
IDAs	International Donor Agencies
IITA	International Institute of Tropical Agriculture
IPCC	Intergovernmental Panel Climate Change
ISGF	Integrated Stakeholder Governance Framework
ISU	International Sustainability Unit
IUCN	International Union of Conservation of Nature
KKFU	Kuapa Kokoo Farmers Union
LBC	Licensed Buying Companies
MC	Minerals Commission
MCD	Municipal Coordinating Director
MCE	Municipal Chief Executive

MDAs	Ministries, Departments and Agencies
MESTI	Ministry of Environment, Science, Technology and Innovation
MIC	Middle-Income Country
MLNR	Ministry of Lands and Natural Resources
MLGDRD	Ministry of Local Government, Decentralization and Rural Development
MMDAs	Metropolitan, Municipal and District Assemblies
MoEn	Ministry of Energy
MoFA	Ministry of Food and Agriculture
MoFEP	Ministry of Finance and Economic Planning
MoH	Ministry of Health
MT	Metric Tonnes
NADMO	National Disaster Management Organization
NCCAS	National Climate Change Adaptation Strategy
NCCP	National Climate Change Policy
NCRC	National Conservation Research Centre
NDPC	National Development Planning Commission
NGOs	Non-Governmental Organizations
NPM	New Public Management
NREG	Natural Resources and Environmental Governance
NRWG	National REDD+ Working Group
PA	Public Administration
PAM	Public Administration and Management
PPP	Public-Private Partnership
PWD	People with Disability
QCC	Quality Control Company
REDD	Reduced Emissions from Deforestation and Degradation

REDD+	Reducing Emissions from Deforestation and Forest Degradation Strategy
SEED	School of Environment, Education and Development
SOP	Standard Operating Procedure
SREP	Scaling-Up Renewable Energy Program for Low Income Countries
SSA	sub-Saharan African
TCC+	Technical Coordinating Committee–Plus
UN	United Nations
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
WB	World Bank
YEA	Youth Employment Agency

ABSTRACT

As a ‘complex global crisis par excellence’, climate change continues to attract extensive global, national and local attention considering the varied nature of its impact across sectors of all economies. Lessons from the international level and advanced economies suggest prominent milestones in governance of climate change policies, strategic institutional framework, robust stakeholder integration for climate action and significant gains from stakeholder involvement across levels. Yet, recent studies on the governance of climate change policies and ambitious integration of stakeholder networks across sectors and levels appear to have attracted limited scholarly attention, especially in many developing economies, where climate change vulnerability is high. Climate change has diverse implications for health outcomes, environmental systems and the socio-economic outlook of every community. Regarding the cocoa sector, extant research evidence indicates the significant contribution of the industry through revenue generation, employment creation and source of livelihood for numerous households. Notwithstanding the visible contribution of the sector, climate change has proven to have a continuous impact on the cocoa sector even though very little attention has been offered in terms of research in developing countries. To empirically advance knowledge on Climate Smart Cocoa (CSC), this study examines the policy governance architecture, stakeholder integration and relations between key stakeholders as well as the significance and barriers of stakeholder integration from the Ghanaian perspective. The study predominantly employs a qualitative research methodology through a semi-structured in-depth interview, review of relevant documents, and focus group discussions as the main data collection tools. The study draws from the Integrated Public Governance Theory perspective as the main theoretical underpinning for investigating the phenomenon. The study observes that domestic climate change policy process receives strong inspiration from international climate change accords and are shaped by a complex mix of national and sectoral climate change adaptation and mitigation strategies. This study indicates the evidence of limited policy alignment strategies and policy incoherence for the plethora of national and sectoral climate change policies in Ghana. This study further shows that healthy stakeholder integration has an overt implication on the efficacy of CSC interventions as compared to ‘pseudo’ and ‘selective’ stakeholder integrations. Also, the findings of this study reveal that the traditional dominance of public bureaucracies in governance has paved the way to a mutually reinforcing climate change governance regime in Ghana’s cocoa sector where public, private and third-sector players’ contribution is recognized. This study argues that this stakeholder integration outlook is to mobilise robust action for resilient CSC, provide enhanced support for CSC initiatives and mobilise strategic and ambitious partnerships for climate action. This study forcefully contends that such a broad stakeholder integration outlook is sometimes characterised by power imbalances, and varied stakeholder interests due to the complex nature of climate change and the actors involved. Hence, the stakeholder integration architecture is sometimes cosmetic and superficial with a semblance of ‘he who pays the piper calls the tune’ in the pursuit of CSC. This study recommends a holistic stakeholder integration across all stages of the climate change policy process as it encourages peer learning, a coproduction of knowledge, and exchange of technical knowledge allows for diversity and equitable inclusion of marginalized and less privileged groups as well as improves policy legitimacy and social justice for CSC.

Keywords: Integrated Governance, Climate change, cocoa, Ghana, stakeholders

DECLARATION

I, Thomas Agyekum Kyeremeh declare that no portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

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CHAPTER ONE

INTRODUCTION TO THE STUDY

1.0 Introduction

Historically, Ghana's cocoa sector has proven to be very supportive in engendering socio-economic development within all facets of the country's economy. In recent years, however, annual yields per metric ton have reduced due to numerous factors such as climate variability, the outbreak of diseases, deforestation, child labour in cocoa growing areas, illegal mining activities (galamsey) and other socio-economic factors. Addressing this challenge requires a comprehensive governance approach which goes beyond the traditional public bureaucracy for policy governance framework towards integrating all key stakeholders. Increasingly, mention has been made of the need for the government to protect its constitutional mandate in the process of engaging other stakeholders in development.

However, an emerging complex societal crisis like climate change calls for a holistic and well-integrated governance approach in dealing with such contemporary problems. This study aims at examining the nuances inherent in the governance of climate change policies in Ghana's cocoa sector. It explores stakeholders' interactions and drivers that foster multi-level, cross-level and comprehensive governance framework in the policy process with specific reference to Ghana's cocoa sector. Specifically, this chapter presents the background to the study, the underlying problem statement necessitating this study,

research objectives and questions on which the study is hinged, justification of the research questions and the chapter disposition of the whole study.

1.1 Background to the study

As a major cash crop in Ghana, cocoa continues to play a significant role in the developmental trajectory of the Ghanaian economy (Kolavalli & Vigneri, 2011). Historically, the contribution of the cocoa sector to the Ghanaian economy dates back to the pre-colonial era until the current dispensation where Ghana is the second largest net producer of cocoa in the world after Côte d'Ivoire. According to Bunn et al. (2019), the cocoa sector contributes over 7% of Ghana's Gross Domestic Product (GDP) and 25 % of the total foreign exchange earnings of the country which represents 20% of the entire world's cocoa export. In terms of job creation and livelihood empowerment, the cocoa sector caters for an estimated 800,000 farmers with over 6 million people receiving between 70-100% income from the entire cocoa value chain (Monastyrnaya et al., 2016; Ameyaw et al., 2018; Buxton, 2020; Kaba et al., 2022).

However, the sector has been affected by myriad socio-economic and environmental factors cardinal among which is the climate change menace and its attendant happenings. The emergence of climate change over the past few decades has gained significant interest in both research and practice. Studies such as Agrawal (2010), Boon and Ahenkan (2012), Schroth, Läderach, Martinez-Valle, Bunn and Jassogne (2016), Bunn, et al. (2019) have touched on the causes of climate change, its ramifications on communities and vulnerabilities in developing countries. Also, significant among the areas of research interest is the role of government in the formulation of climate change, climate change

adaptation, and climate change mainstreaming into agricultural plans among others (Anim-Kwapong & Frimpong, 2008; Schlenker & Lobell, 2010).

Interest has even soared higher considering the interdependencies between the various layers of public, private and non-governmental actors towards addressing the climate change concerns of the ‘commons’ within communities, where climate change impact is most felt by citizens. Regarding climate change policy governance, previous studies have largely focused on the role of public actors, the private sector and the NGO sector in dealing with the issue independently among developing countries (Agrawal, 2010; Boon & Ahenkan, 2012). The upsurge of multi-stakeholder collaborative and integrated governance approach towards solving critical national challenges can contribute enormously towards filling the vacuum hitherto created by a unilateral state-led approach. In Ghana, limited studies appear to have been conducted on the governance of climate change policies through a comprehensive stakeholder approach (Dormon et al., 2004; Bulkeley et al., 2012; Gebreyes, 2018). Though the cocoa sector continues to have a phenomenal impact on the Ghanaian economy, the governance approach required for managing climate change policies in the sector appears to have gained limited attention. Given the monumental significance of the sector, a comprehensive consideration of the governance dynamics of climate change policies remains very instructive. The study, therefore, seeks to investigate the governance of climate change policies within Ghana’s cocoa sector by examining the interdependencies and relations between the various stakeholders throughout the governance process and how such an integrated governance approach benefits the quest for CSC initiatives.

1.2 Problem Statement

As the leading producer of cocoa until the 1970s, Ghana continues to maintain an enviable position as a major net producer of cocoa in the World. Currently, Ghana has an estimated production capacity of one million metric tons of cocoa beans as evidenced in the 2020/2021 cocoa seasons. Undeniably, the sector has shown to be a crucial part of Ghana's socioeconomic development considering its large size and the magnitude of stakeholders involved in the entire value chain (Dormon et al., 2004; Vigneri & Kolavalli, 2017). The sector is significant for both micro and macro levels of development through the provision of livelihood for smallholder rural families, engendering poverty reduction, providing foreign exchange as well as insulating government's initiatives by serving as collateral for syndicated loans contracted for mega national projects.

Generally, Ghana's cocoa sector benefits from varied stakeholder involvements from the international, national and local levels due to the historical business interest associated with the industry. Over the years, multinational business co-operations, International Donor Agencies (IDAs), international and local Non-Governmental Organizations (NGOs), the Ghana government and its Ministries, Departments and Agencies (MDAs), business actors at the national and local level, local authorities and the farming communities alike have long shown interest in the sector. Therefore, understanding their interdependencies, synergy and relations within the cocoa sector is very appropriate, worthwhile and even more critical as climate change continues to pose dire consequences for the sector.

Bunn et al. (2019) observe that the cocoa sector has enormous leeway of becoming even more impressively productive, sustainable and forward-looking in the coming years if carefully monitored. However, cocoa production is variously threatened by climate change,

illegal mining and other ecological factors. As the rhetoric goes, climate change is a complex global challenge requiring global solutions and cross-sectoral activism. Climatic conditions such as changes in rainfall patterns, increasing temperatures, uncontrolled emergence of drought, flooding, harmattan wind and storms render cocoa farms extremely vulnerable and overly susceptible to current ecological challenges (Dormon et al., 2004; Anim-Kwapong & Frimpong, 2008; Ameyaw et al., 2018). These extreme climatic conditions are even projected to increase with numerous adverse implications on the suitability of cocoa farming in Ghana (Schroth et al., 2016; Kaba et al., 2022).

Ensuring climate action, optimal adaptation and prudent mitigation for sustainable cocoa production in Ghana require strategic governance of all relevant climate change policies and holistic stakeholder integration. Consequently, a plethora of research has been conducted on the scientific basis, causes and effects of the canker and its implications on human livelihood. Given this, the government's commitment to formulating climate change policies has risen as a result of its impetus in contemporary global development architecture. Boon and Ahenkan (2012) observe that climate change policies are part and parcel of the current global development framework and require more governance innovations and comprehensive strategies in realizing them in developing countries such as Ghana.

Recent studies on the governance architecture, policy governance dynamics, and stakeholder framework required for climate change policy appear to be at its infantile stage. That is, the extant literature on climate change policy governance shows many limitations as the predominant focus that appears to have been placed on issues such as nature, rationale, and implications of climate change; climate change adaptation and mitigation;

the role of the business sector in addressing climate change and sectorial vulnerabilities of climate change. In most developed countries, climate change policy governance has garnered extensive attention recently, however, little of such efforts are recognized in most developing African countries (See: McCarthy et al., 2001; Change, 2007; Bulkeley et al., 2012; Boon & Ahenkan, 2012; Cubasch & Kadow, 2019).

There appears to be a paucity of scholarly attention on climate change governance in Ghana's cocoa sector, even though studies abound on climate change modelling, sea level rise, and the economic impact of cocoa and temperature variation in Ghana. However, addressing the challenges of climate change requires a shift in attention from the international and developed country level towards focusing on emerging governance frameworks in developing countries like Ghana. At the international level, prominent milestones such as the 2014 COP 18 conference in Durban, COP 20 conference in Lima, the 2015 COP 21 conference in Paris, and Cop 22 in Morocco famously known as the 'Marrakech Partnership for Global Climate Action' among others such as the most recent Sharm el-Sheikh Climate Change Conference (COP 27) have all been positioned as initiatives aimed at accelerating action for climate change.

However, the same progress cannot be said in the case of Ghana and many developing countries notwithstanding the adverse implication of climatic changes in these economies. In the case of Ghana's cocoa sector, the need to mobilise robust action for resilient and Climate Smart Cocoa (CSC), provide enhanced support for CSC initiatives and mobilise stronger and ambitious partnerships for CSC is more urgent than ever considering the contribution of the cocoa sector to Ghana and the impact of climate change on the sector.

The emerging governance approach advocates for strategic innovations where interdependencies and relations between broader stakeholder networks are deployed across sectors and levels. Consistent with this indication, the findings of the EU's ADAM project observed that "Global climate policy beyond 2012 requires a strong, integrated governance architecture that involves both public and private actors and that provides a regulatory framework on both mitigation and adaptation.

The rationale is that highly fragmented global climate governance is likely to be more costly, less effective in terms of environmental goals, and less equitable regarding smaller countries, particularly in the global South" (Hulme et al., 2009:20). In this regard, the various layers of government institutions, relevant private enterprises, the third sector and community-based citizens groups are engaged through comprehensive integrated governance framework for solving complex problems such as climate change crisis. So far, the available literature on governance of climate change policies reveals several limitations regarding the nature of stakeholder integration and factors underpinning such integration at, *inter alia* (i) horizontal level across policy sectors within the government's ministries, departments and agencies at the national level, (ii) vertical level across international, national, regional, district and local jurisdictions of the policy governance process. Equally puzzling is (iii) the nature of stakeholder integration and the dynamics for involving the business/private sector and NGOs in the governance process and (iv) how stakeholder integration plays out for various focal leaders and citizens at the community level as well as the significance and barriers inherent in stakeholder integration across sectors and levels.

Considering the above research gaps, this study applies the Integrated Public Governance theory to examine and broaden the understanding of climate change policy governance in Ghana's cocoa sector to engender resilient and CSC.

1.3 Research Aim, Objectives and Questions

This study aims at examining the nuances inherent in the governance of climate change policies in Ghana's cocoa sector. It explores stakeholders' interactions that foster multi-level, cross-level and comprehensive governance frameworks in the policy process. The study also investigates the context within which climate change policymaking and implementation occur and the driving forces underpinning the complex interplay between key stakeholders at the various policy governance levels. The Integrated Public Governance Theory as advanced by Goodsell (2006), is adopted to broaden the understanding of the governance of climate change policies, driving forces and nuances inherent in the integration of stakeholder networks in the governance of climate change policies as well as the benefits and impediments of stakeholder relations.

Specifically, the study aims at achieving the following objectives:

1. Investigate how the governance of climate change policy play out in Ghana's cocoa sector
2. Assess the nuances inherent in stakeholder integration and how stakeholder networks shape the governance of climate change policy in Ghana's cocoa sector
3. Examine the significance and barriers of comprehensive stakeholder integration in climate change policy governance within Ghana's cocoa sector.

To attain these objectives mentioned above, this study is underpinned by the following research questions:

1. How does the governance of climate change policy play out in Ghana's cocoa sector?
2. What are the nuances inherent in stakeholder integration and how do these stakeholder networks shape the governance of climate change policy in Ghana's cocoa sector?
3. What are the significance and barriers of comprehensive stakeholder integration in climate change policy governance within Ghana's cocoa sector?

1.4 Justification of the Research Questions and Context

Understanding the underlying practices in governing climate change policies is very necessary considering the socioeconomic and political implications of the cocoa sector. These research questions are justified on various grounds due to the limitations inherent in the available literature and theories explored by this study. Stakeholder collaboration has benefited significantly from research attention, but limitations exist in the literature regarding the governance of this process regarding climate change policies (see e.g.: Agrawal, 2010; Bulkeley et al., 2012; Boon & Ahenkan, 2012; Vigneri & Kolavalli, 2017; Bunn et al., 2019). Although numerous research exists on environmental governance within the developing country context, these studies fail to highlight the implications of climate change policy governance on the cocoa sector in many of these economies.

The cocoa sector represents a significant part of the government's revenue and contributes towards creating employment and livelihood for numerous households. Thus, the menace

caused by climate change holds diverse implications for governance and livelihood for many citizens in less developed countries like Ghana. Notwithstanding the apparent relations between the cocoa sector, climate change and governance practices, very little attention has been offered to the area in terms of research, particularly in developing countries. Consequently, less is known about the existing governance architecture, relations between key stakeholders, drivers of such stakeholder relations and its implications on the cocoa sector.

The first research question is formulated to understand how stakeholder relations and integration play out within climate change policy governance in Ghana's cocoa sector. The significance of the cocoa sector calls for the inclusion of numerous actors at various levels of the governance framework. That is, exclusive dependence on a single government organization causes challenges hence the shift towards an integrated form of governance where all stakeholders participate throughout the process (Agrawal, 2010). Over the years, an exciting array of research-related approaches has emerged, prompting interesting discussions on the role of state agencies in environmental governance. These studies have placed limited emphasis on other stakeholders outside the state realms. Although contemporary environmental governance regimes have featured friendly linkages between state and non-actors, little is researched on how these collaborative dynamics happen within Ghana's cocoa sector.

Understanding how stakeholder collaboration plays out among these actors caters for this literature limitation on stakeholder dynamics on climate action (Geiger et al., 2022). The second research question caters for the nuances inherent in stakeholder integration and existing literature limitations on the underpinning forces driving the collaboration between

stakeholders and how these inherent forces shape the climate change policy governance process. Comprehensive stakeholder integration is relatively a new strategy of regulation which is replacing the traditional strategy of absolute control by only state institutions. Ousting this exclusive and state-led governance regime is driven by various factors which may either be pull or push depending on the stakeholder under consideration (See: Dietz et al., 2003; Kooiman, 2003; Cubasch & Kadow, 2019).

Several theories and frameworks have been examined in existing literature explaining the rationale for such relations among key stakeholders. The institutional theory for instance has been used to explain the novelty of the solutions eminent in broader stakeholder collaboration; however, limitations exist in literature concerning the driven forces of stakeholder collaborations for environmental problems previously managed under the purview of state institutions. Also, how these forces shape the governance of climate change policies remains a subject of great concern in the literature. This study employs the integrated public governance theory as a comprehensive analytical approach towards examining the motivations and incentives for collaboration among stakeholders through the policy governance process.

Finally, the existing body of literature appears to be clear on how stakeholder collaboration enhances comprehensive governance efficiency on climate change-related issues as well as the barriers associated with stakeholder integration. This is to say that governance of climate change policy affords effectiveness and efficiency as the extant literature posits (Dietz et al., 2003). The emergence of new systems of environmental governance has shown the importance of more nuanced thinking regarding hybrid forms of governance and regulation across the dividing lines represented by the public, private, NGOs and

communities. However, a broad array of literature on the collaborative governance approach avers that the efficiency and effectiveness argument is only part of a bigger whole of how these forces influence mainstreaming of climate change policies in Ghana's cocoa sector.

The idea is that governance of climate change policies within the cocoa sector is inspired by a plethora of reasons but not efficiency alone. The existing body of literature is limited on how these forces influence mainstreaming of climate change policies. Thus, the last research question delivers the literature limitation in this regard. In addressing these limitations in the body of literature, the governance of climate change policies in the context of less developed economies is considered. Specifically, the case of Ghana is articulated in this study considering the prevailing context gap. By focusing on Ghana, the cocoa sector which offers the country relatively high foreign exchange revenue in terms of cash crops is explored. The study seeks to unravel the governance architecture for climate change policies within Ghana's cocoa sector as an extension of knowledge on the subject area considering the complexities involved in climate action.

A study on governance dynamics of climate change policies within Ghana's cocoa sector is very apt in unveiling the developing country's perspectives on the nature, dynamics, drivers and implications of policy governance on climate change within the cocoa sector. In this regard, the study focuses on the governance of climate change policies with a particular emphasis on the various arrangements under which various state and non-state stakeholders interact in achieving the required policy outcomes.

1.5 Chapter Disposition

The entire study is structured into nine clear chapters with each chapter displaying a different study focus as summarised below:

The initial part of the study [Chapter 1] is dedicated to the general introduction of the study and captures salient issues including the chapter introduction, background information of the study and the research problems underlying the study. The Chapter also captures the underpinning justifications for the various research questions informing the study as well as the structure of the thesis which is referred to as the chapter disposition.

The second chapter [Chapter 2] entails a critical review of relevant literature bothering on the governance of public policies contemporary age. To undertake a comprehensive review of salient literature, the chapter starts with an introduction of the chapter which highlights the major compositions of the chapter under review. The conceptual definitions of governance are also explored from the perspective of various scholars in this chapter. Governance as a concept continues to undergo major reformations with emerging approaches coming to the fore in contemporary times. With this in mind, its evolutions from traditional Public Administration to the era of NPM as well as the emerging governance approaches are thoroughly examined. As a contemporary governance model, the emerging governance approaches as depicted in a Post-NPM reform continue to gain roots in academic literature, hence, the chapter takes a swipe at this current state of affairs to observe the contemporary governance regime.

The chapter equally reviews the literature on the integration of multiple networks into governance contemporary public policies and the involvement of public, private, and third

sector as well as community or citizenry involvement. Specifically, the session presents the public sector in emerging modes of governance, private or business sector involvement in contemporary governance, the third sector's participation in present-day governance frameworks and citizens or communities as active players in emerging forms of governance. Considering the involvement of multiple players in the governance processes, examining the nature of the relationship among actors remain significant. Therefore, the chapter investigates the nature of the relationship among key stakeholders or network groups within the public, private, NGOs and the community in this integrated governance regime.

The second part of the chapter ventures into the main public policy under consideration. That is, climate change and governance relations are explored in this chapter to understand the main drivers informing this relationship and the dynamics inherent in the integration processes. The existing national strategies and institutional architecture for climate change policies in Ghana are also examined as well as the key impact of climate change and sectorial vulnerabilities of the climate change menace in Ghana. Situating the study within a theoretical space informs the main base of the study. That is, in terms of theoretical perspectives on the study, the Integrated Public Governance Theory is employed as the main theory underpinning the study. A conceptual framework is equally formulated as the lens through which the study could be understood as well as the chapter conclusion.

The third chapter [Chapter 3] typically situates the thesis within an epistemological and methodological space as expected of any scientific research. That is to say that the chapter reflects the main research methodology underpinning the study. The chapter starts with a chapter introduction followed by the research paradigms within which the study is located.

The chapter clarifies the main debates inherent in the interpretivist paradigm employed for this study and further justifies the choice of the paradigm. The research approach adopted for the study is also highlighted in this chapter. In doing so, the qualitative research approach is explained and the rationale for choosing that approach is equally stipulated. More so, the case study research technique, sampling technique used and sample size for the study is also captured. The chapter also presents the breakdown of selected interviewees sampled before fieldwork, data sources, research instrumentation and data analysis. Considering the ethical implications of conducting a study such as this, the study presents the ethical considerations instituted for the study as well as the justification for conducting the study, its relevance to the field of Development Policy and Management and the scope and limitations inherent.

Chapter Four [4] of the study introduces the contextual realities of the study by covering the nature of Ghana's cocoa sector. This chapter indicates the historical perspectives of the sector, its contribution to socio-economic development and the production capacity of the entire cocoa sector among many others. The chapter captures the progress made by the sector and the contemporary dynamics inherent in cocoa production within the Ghanaian context.

Also, the Chapter Five [5] of the study presents data gathered on the incidence of climate change in Ghana and the governance dynamics inherent in the governance of climate change. Empirical data from the fieldwork indicating the governance of climate change in Ghana's cocoa sector and how it features in the wake of the international climate change accord is equally submitted in this chapter. Data on the implication of climate change on the cocoa sector and the policy environment within which climate change operate in

Ghana's cocoa sector is presented. Climate change presents a complex crisis which requires complex thinking and comprehensive stakeholder integration throughout the process. In doing so, multiple stakeholder participation at the horizontal level, vertical level and cross-level come to the fore with various dynamics.

Therefore, this chapter [Chapter Six] shed more light on the data on governance dynamics of stakeholder relations in climate change policies governance in Ghana's cocoa sector. The chapter presents the power imbalances inherent in the governance of policies through broader stakeholder integration, layers of stakeholder integration of the policy governance process, which is exhibited throughout multi-level governance, horizontal, vertical and cross-level stakeholder space. Data on the major drivers and implications of stakeholder integration in the governance of climate change policies in Ghana's cocoa sector among many others, are presented in this chapter. Factors influencing stakeholder integration in the governance of climate change policies could be diverse with a plethora of barriers for integration of stakeholders in Ghana's cocoa sector. In some instances, comprehensive stakeholder involvement is noticed whilst issues of disharmony and inconsistencies remain likely.

The Chapter Seven [7] of the study presents data on the significance and barriers of stakeholders' integration in Ghana's cocoa sector and how Ghana's cocoa sector could relief itself from the associated challenges.

Chapter eight [8] provides details of the interpretations drawn from the data gathered from the field and further discusses the study findings in light of existing literature. In this chapter the connections between the field data and established theoretical and empirical literature are drawn for the purposes of arriving at useful conclusions. Findings that

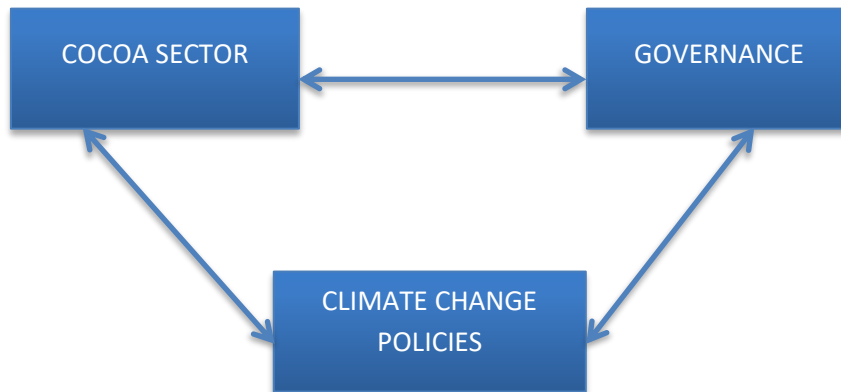
corroborates with existing literature or deviates from the available scholarship are equally highlighted in this chapter in order to conclude and make well-informed recommendations. Emerging findings which contribute to the body of knowledge are synthesized and presented in this chapter to entrench ongoing debate on governance within Ghana's cocoa sector. The chapter extends understanding of the theoretical and empirical space in which the study is situated and justifies why the conceptual framework plays out within the thesis. The final chapter [Chapter 9] summarizes the main findings of the study and presents the conclusions drawn from the study. It provides the main conclusions drawn from the study based on the main objectives covered in the chapter. Equally, the novel findings emerging from the study are synthesized and presented in this chapter to influence policy decisions and the practice of governance within Ghana's cocoa sector. The policy implications of governance of climate change policies within Ghana's cocoa sector are presented for a good and practical understanding of the concepts under discussion.

1.6 Conclusion

Climate change in Ghana's cocoa sector is no more an abstract endeavour, but real and lived for most of the cocoa-growing communities. It continuously affects all sectors of the Ghanaian economy such that a comprehensive governance approach is earnestly required to remedy the situation. This initial chapter of the study is dedicated to the general introduction of the study and captures salient issues including the chapter introduction, background information of the study and the research problems underlying the study. The Chapter also captures the underpinning justifications for the various research questions informing the study as well as the structure of the thesis which is referred to as the chapter

disposition. Specifically, the study covers three clear and mutually reinforcing areas illustrated below:

Figure: 1.1 Tripod Presenting a Summary of Study Areas



Source: Author's Construct, 2022

CHAPTER TWO

GOVERNANCE OF PUBLIC POLICIES IN CONTEMPORARY AGE: A CRITICAL REVIEW

2.0 Introduction

This chapter is dedicated to review governance dynamics within a public policy setting of this contemporary time. The rationale is that contemporary socio-economic and environmental constraints appear to be varied and complex depending on several factors. Specifically, a complex environmental crisis such as the climate change menace among other challenges has necessitated a major transition from a traditional governance framework into a more robust and comprehensive one where all relevant actors are expected to be integrated. This chapter reviews these changing trends, highlights the major characteristics of the emerging governance mechanisms and discovers how contemporary socio-economic challenges play along with these novel governance approaches. Further, the chapter reveals the existence of key stakeholder groups and justifies their essence in the governance of complex public problems.

The chapter is divided into two cardinal subsections considering the nature of the governance architecture. The initial section captures the conceptual understanding of governance, public governance as well as the evolutions in public administration and practice from traditional public administration into NPM followed by the emerging approaches in contemporary times. The second section concentrates on highlighting these contemporary approaches and discusses some critical governance forms in the post-NPM

agenda. It further examines the broad goals for stakeholder involvement from the public sector, private sector, and NGO sector and community levels. The chapter conveys the argument that contemporary governance architecture for emerging socio-economic and environmental constraints are hinged on comprehensive stakeholder integration due to the complex nature of contemporary public problems.

Specifically, the Integrated Public Governance Theory is projected as the main theoretical underpinning of the study due to its support for multi-level, cross-sector and holistic tendencies for accommodating all stakeholder networks throughout the policy governance process. The nature of the relationship among key stakeholder network groups as exhibited in an integrated governance regime is equally explored to draw useful conclusions for policy and practice.

2.1 Conceptual Definition of Governance

Over the past few decades, the term “governance” has risen to be a known part of development research and practice. To be clear, governance is not a new term considering its strong historical, theoretical and ideological base in different academic disciplines. The concept benefits from vast multidimensional features hence very slippery to define. As general as the term may be, it is often used to denote the act of governing either within the private or public sector (Emerson et al., 2012). The concept emphasizes how a given community, nation and group of people organize to manage issues of common interest. At the same time, the notion of prudent institutional delivery, stakeholder arrangements, and legitimate exercise of authority by individuals and organizations with the ultimate aim of attaining desired objectives is what governance stands for (Ostrom, 1990; Marks, 2014).

Governance fosters a congenial atmosphere for a society to steer itself through a collective process with non-state actors towards addressing problems of common interest. Kickbusch and Gleicher (2012) observed that governance entails how government organizations interact with other key players such as the private sector, social partners, citizens and all interested parties towards solving complex problems. This process calls for a network of stakeholders to collaborate towards resolving the existing complex crisis. Governance in itself reflects a multifaceted approach towards achieving a determined end which may either be private or public. Within the public sphere, governance is often regarded as the set of principles, standards and codes through which public-spirited institutions exercise legitimacy towards achieving set targets. This could as well be attained through laws, systems and regulations through which processes of accountability thrive.

This underscores the emergence of “good governance” within most public organizations. In much the same way, the private sector has witnessed an increased preponderance of a concept which has come to light as “corporate governance” (Marks, 2014). This has equally emerged as a result of increasing government deficits witnessed among private sector organizations and to spur up compliance of key governance indicators within respective institutions of concern. It is instructive to point out that whether private or public, governance entails how actors carry on with available processes and systems towards making decisions within acceptable norms and practices with the ultimate intention of solving societal problems.

Understanding governance is triggered by the proper assimilation of certain core models. These models include the agency model which entails performance management systems, incentives and sanctions; a stakeholder model, which highlights the interactions and

balancing-off of broader and multiple stakeholder interests; a stewardship model integrating civic society organizations to share values; policy governance model indicating the differences between the public and other entities who deliver services on behalf of the government; environmental governance observing shared linkages between state, private and the community in environmental protection, and the integrated public governance model which ensures active stakeholder collaboration and thorough actor integration across board (See e.g.: Ostrom, 1990; Elliott & Salamon, 2002; Agrawal & Lemos, 2007; Kickbusch & Gleicher 2012; Marks, 2014). According to Robichau (2011), the search for a concise definition of governance has usually linked to certain key words including rules, networks, order, steering, new, control, good, governing as well as authority. Even though the concept of governance cannot be said to be new, its diffitional complexities appears not to be far fetched with difficulties in arriving at a mutually agreed diffinition. Ansell and Gash, (2008) observes that in the quest to define governance, key phrases such as “ordered rule” and “collective action or decision making” are oftenly used to describe governance as Stivers (2008) also hilights “exercise of authority” as a phrase predominantly used to refer to governance. In the classical diffinition of governance, the Commission on Global Governance (1995) opined that governance entails; ‘the sum of the many ways individuals and institutions, public and private, manage their common affairs. It is a continuing process through which conflicting or diverse interests may be accommodated and cooperative action may be taken. It includes formal institutions and regimes empowered to enforce compliance as well as informal arrangements that people and institutions either have agreed to or perceive to be in their interest’. Kooiman and Bavinck, (2013. P.19) also indicates that ‘governance is the whole of public as well as private interactions taken to solve societal

problems and create societal opportunities. It includes the formulation and application of principles guiding those interactions and care for institutions that enable them’.

Put succinctly, Howlett and Ramesh (2014, p. 318), summarily pontificates that;

‘governance’ is about establishing, promoting and supporting a specific type of relationship between governmental and nongovernmental actors in the governing process”

This indicates that governance has transformed over the years from a concentrated government power monopolised within state institutions into a diffused and shared power system between state institutions and other stakeholders with the same interest. This participatory and collaborative strategy adopted in solving contemporary problems and stakeholder integration has reached the mainstream due to the changing nature of modern societies. Complexities in present-day challenges will mean that absolute monopolistic tendencies will not be adequate in addressing those complex problems unless through broader stakeholder engagements (Fukuyama, 2013). Active involvement of a broader range of interested parties and the involvement of the governed appears to be the way. The rationale is that governance involves numerous stakeholders who perform their responsibilities beyond the narrow scope of the state actors in solving societal constraints. Jordan et al., (2007) indicate that governance entails a broad array of regulatory and non-regulatory instruments being initiated by other actors aside from the mainstream public actors.

The surge of research interest in the perspectives, modes and implications of governance on all sectors of the world’s development continues unabated. This consistent search has

triggered massive shifts in terms of paradigm within the field of Public Administration and Management (PAM). This major transformation in government and public administration has rendered administrative hierarchies less powerful and less important as some of these obligations have been transferred to the private and third sectors. Before examining the existing perspectives of public governance, it is worthwhile to explore the conceptual processes underpinning public governance through the Public Administration (PA) trajectory.

2.2 Evolutions in Public Administration: from Traditional PA to Emerging Governance Approach

Public Administration Management (PAM) continues to undergo a major transformation as critical of every progressive field of enquiry. These tremendous reformation processes have been necessitated due to the growing sophistication of challenges confronting various governments. Traditional PA emerged in the later part of the nineteenth century out of the demand on the public sector to confidently solve the socio-economic needs of the citizens ‘from the cradle to grave’. To attain this objective, there was the need to adhere strictly to the rule of law, and bureaucracy among other key elements in response to the growing complexities of industrialization, the rise of new enterprises, and urbanization among others. Bryson et al. (2014) emphasized that this dimension recognized citizens as voters and constituents who benefit from the key values of administrators’ efficiency.

In this regard, the creation of public value, interest and common good was the sole preserve of elected officials or technocrats. The surge in government failures and distrust of big government and other challenges resulted in the terminal decline of PA which triggered the

birth of New Public Management (NPM) in the late 1970s as a new discourse for championing PAM (see e.g.: Chandler, 1991; Hood, 1995; Frederickson & Smith, 2003). Unlike PA which places extensive emphasis on public sector bureaucracy, NPM views citizens as customers and highlighted private sector techniques as necessary conditions for achieving effectiveness and efficiency in the delivery of public goods. This stage brought to the fore core market elements such as entrepreneurial leadership; competition; key performance management principles; budgeting, among many other related private-sector management techniques.

Though progressive to an extent, NPM's nature, processes and successes have been largely criticized for causing the infiltration of the frontiers of PAM with old-fashioned private sector techniques and systems (See: Frederickson & Smith, 2003; Osborne, 2006). The significant challenges associated with the inapplicability of private-sector *modus operandi* into the public sphere triggered criticisms against NPM causing the birth of the Post NPM approach. Although the emerging approach continues to undergo evolution, its outline and key standpoint have become clear. The proponents of this emerging approach have drawn on different epistemological and theoretical foundations to coin a different approach other than the traditional PA and NPM (Bryson et al., 2014). Gerry Stoker in 2006 mentioned "Public Value Management", Barry Bozeman in 2007 also coined "Managing Publicness", Stephen Osborne equally highlighted "New public governance" in 2010, Harry Boyte and others also mentioned the "New Civic Politics" in 2011, whereas Janet Denhardt and Roberts Denhardt also framed the "New Public Service" in 2011 (See: Stoker, 2006; Bozeman, 2007; Osborne, 2010; Boyte, 2011; Denhardt & Denhardt, 2015).

Central to the propositions of this emerging approach is the need for the deliberate engagement of citizens to engender public spiritedness throughout the problem-solving process. The rationale is that creating sustainable public value rests on citizens' inclusiveness through a multi-stakeholder regime since the government is not the only organization charged with a public value creation mandate. Put succinctly, Jørgensen and Bozeman (2007) emphasised that public value obligation is not a sole preserve nor exclusive province of government and must be widened enough for broader stakeholder collaboration at all stages. This position holds numerous justifications for understanding collaborative and network governance approaches as a precursor.

In the view of Boyte (2011; 632-33) network and collaborative governance refers to:

“...Self-organized, sustained efforts by a mix of people who solve common problems and create things, material or symbolic, of lasting civic value, while developing civic learning and capacity as part of the process”.

A contemporary approach towards addressing public problems requires broader stakeholder engagement across sectors and citizens. By doing so, citizens are regarded as problem solvers and co-creators of public value rather than being considered merely as voters or constituents of government intents. This point of departure proves to be more sustainable in dealing with a complex social and environmental crisis such as climate change. The ultimate is that the government assumes a partnering, facilitator, convener, rowing or collaborator role among other networks depending on the stage of the process. This multifaceted approach sustains citizen interest, facilitates professionalism and enhances community values in the co-creation of values geared towards the common good.

2.3 Emerging Governance Approaches as Post-NPM Reform

The decade of shared power among key stakeholder groups in policy governance processes has reached its highest apogee. This culmination is explained by the changing nature of the world's problems and the urgency for a broader and more holistic approach towards solving these challenges. Governance of policies for critical public problems such as pollution, illegal mining, climate change, deforestation, diseases and others are well executed through a comprehensive dialogue between all relevant stakeholders (Fung, 2015).

2.4 Integration of Multiple Networks into Governance

Globally, the increase in interest of the private/market sector and NGOs in all facets of socio-economic and environmental advancement has been underpinned by the low performance of the known public bureaucracy. These official hierarchies of government often referred to as Public Administration in its traditional sense has, hence, given way to the inclusion of other actors from the private/market realms, NGOs sector and even citizens at the community levels. For instance, market players and NGOs are keenly involved in public policy formulation and implementation due to the weakened performance of state institutions. Goodsell (2006) argues that this contemporary approach of self-organizing interactions among public, private and voluntary agencies appears to be the new paradigm for solving social constraints. This interaction is driven by shared interest and common focus which is usually carried through prudent communication, sustained negotiation and exchange of expertise and tends to shape public policy diversely.

As an emerging approach, it has been more pronounced due to the limited control and regulation of erstwhile powerful public institutions. This has resulted in what is referred to

as “governing without government” as well articulated by Rhodes (1996). The integration of multiple networks of public, private, NGO and citizens into the governance of public policies offers a comprehensive and integrated approach beyond NPM reforms.

2.4.1 The Public Sector in Emerging Modes of Governance

The traditional role of public bureaucracies ensuring strict adherence to pre-established rules and appropriate procedures with limited discretion for administrative officials has diminished over time since the emergence of both NPM and post-NPM. Policy governance within the current dispensation enjoins public officials to create and guide networks deliberately. In this regard, mechanisms for attaining policy objectives lie in the creation of incentive structures and networks that builds cross-sector collaboration and pragmatically engage citizens. Denhardt and Denhardt (2015) observed that the design and implementation of policies objectives exclusively by government agencies are largely restrained within this emerging sphere of governance policy discourse. Government and public officials only act as collaborators and sometimes steer affairs by partnering with all relevant stakeholders throughout the policy process.

It is instructive to add that in certain cases, the government stays out entirely to allow other actors to play the leading role due to their expertise and knowledge in that area of the policy process. Admittedly, the public sector in emerging modes of governance does not have a fixed role but mostly functions as a co-ordinator or collaborator and not a controller of government business. Goodsell (2006) emphasized further that the rationale is to ensure that the public sector has no monopoly on public service ethos in addressing complex

public problems in contemporary times. This calls for the maintenance of strong stakeholder relationships based on shared public values.

2.4.2 Private/ Business Sector Involvement in Contemporary Governance

‘Complex crisis’ is upon all facets of the World’s economy in contemporary times. The surge of research interest in addressing these prevailing challenges has brought private sector involvement to the fore. This is against the backdrop that private sector management systems offer a hands-on approach where entrepreneurial leadership, competition, complete emphasis on inputs and output controls, efficient allocation of limited resources and prudent auditing systems are engrained throughout the policy processes of the public sphere (See e.g., Frederickson & Smith 2003; Osborne, 2006; Boyte, 2011). The application of these private sector mainstream techniques holds enormous implications for public service within the current dispensation, unlike the traditional PA system. The rationale is that private or business sector players contribute significantly towards emerging socio-economic challenges such as climate change, illegal mining, and deforestation among others.

Hence, the need for their inclusion in the efforts towards addressing these socio-economic constraints. More so, the private sector continues to possess in-depth knowledge of emerging innovations and technology, high human resource expertise, and enough resources among others, which are beneficial in finding solutions to complex social challenges. This harks back to the position that comprehensive integration of the private sector together with all the other sectors tends to offer a good platform for the co-production of knowledge for dealing with challenges. Forming a formidable integration

framework allows for all sectors to bring their comparative advantages to bear in efforts towards addressing contemporary challenges.

2.4.3 Third Sector's Participation in Present day Governance Frameworks

Over the past few decades, the third sector which is constituted of players within the voluntary sector, and non-governmental organizations and majority of which have a non-profit orientation, civil society groups and players within the social economy has come to the spotlight as integral to the contemporary governance system (See: Pestoff et al., 2012; Denhardt & Denhardt, 2015). The emergence of the sector in contemporary public governance circles is to supplement the actions of the mainstream public sector and venture into critical areas that the public sector does not have an interest in pursuing. More importantly, Pestoff et al. (2012) observed that the third sector performs manifold roles in terms of public service provision and governance of public policies including smooth community integration, providing a voice for the voiceless, pioneering state-of-the-art innovation and technology as well as ensuring quality in service provision.

This drives home the point that the third sector in every country plays a cardinal role in the governance of public affairs and must be held in high esteem. In doing so, it is instructive to highlight that this sector involves local and international actors; hence, managing them must be conducted with tact and strategy.

2.4.4 Citizens or Community-based Actors as Active Players in Emerging forms of Governance

Complex societal constraints require complex thinking where all key stakeholders are broadly involved in the entire governance process. Prudent governance in the

contemporary sphere of thinking requires all necessary players or actors to be part of the solution process. Stakeholder brackets, in this case, call for private-sector engagement, public-sector coordination efforts, third-sector players and most importantly, the citizenry. The call for citizenry or community involvement is due to the adverse impact of public problems on citizens and communities forming part of the stakeholder group. That is, people within the various societies or communities contribute significantly to the escalation of public problems and suffer from the consequences of their actions and inactions, hence the need for them to be a cardinal part of the solution process.

To a large extent, Fung (2015) claims that citizen participation in the governance process helps in advancing effectiveness, legitimacy, and social justice in the governance process. However, questions about the difficulties in engaging all stakeholders and the chances of reaching a consensus through such huge numbers appear to be obvious. Irrespective of the difficulties, citizen involvement is highly indispensable in the contemporary governance framework. In doing so, leaders of various traditional groups, religious organizations, youth groups, and women associations among others network brackets serve as a very good reference point for engaging citizens. An equally useful point of note is for governance conveners to also consider the different modes of speaking, hearing and exchange of information as well as the power imbalances inherent among community stakeholders or citizens.

A broader consultative framework involving varied citizen groups tends to bolster outcomes of the governance process and enhances effectiveness in solving critical social problems. This underscores the essence of emerging governance architecture to include citizen groups or community stakeholder groups as an integral part of the stakeholder

network. Community actors or citizen groups possess rich indigenous knowledge which is very beneficial towards the process of addressing the community-specific crisis. Hence, their involvement has the potential for enhancing the coproduction of knowledge, resource pooling, and transfer of indigenous knowledge and technical expertise which increasingly contribute towards solving complex problems within the community in real-time.

Extensive research evidence points out the position that the community level will be of particularly great importance in the context of climate change governance and CSC initiatives. The rationale is that an issue as broad as climate change can only be extensively remedied through individual and collective actions where community actors are involved (Caulfield & Larsen, 2002; Satterthwaite, 2008). Adger (2001) even assumes that collective action for local climate protection is one of the essential, as-yet unexploited capacities of human societies. Evidence abounds in the case of community-based groupings and their role in climate change adaptation and mitigation as they contribute towards the transition process into sustainable and resilient practice as far as local adaptations to the “grand global crisis” is a concern.

2.5 The Nature of Relationship among Stakeholder/Network Groups in Integrated Governance Regime

The contemporary governance approach is anchored on broader stakeholder interactions where different actors within a multi-layered, cross-sectional and diverse jurisdictional context participate towards creating public value for citizens. Through this medium, actors from government, business, NGO sectors and even local communities can interact keenly towards addressing eminent social constraints. As this approach fosters holistic interaction

and comprehensive integration, issues of power dynamics, supervision and control of the process emerge. This begs the fundamental question of which actor controls or leads the governance process and the stage at which such a role is required. Bryson et al. (2014) posit that in both traditional PA and NPM, government or state agencies possess the absolute power and constitutional mandate to control, steer and lead other actors through the policy design and governance process.

Should this relationship be allowed in contemporary governance and emerging approaches? Scholars such as Rhodes, 1996, Cleveland, 2002 and Bryson et al., 2014 settle this puzzle by emphasizing that in a multi-stakeholder regime, no single-actor wholly controls or leads the governance process. In this regard, an integrated governance regime affords all key stakeholders the unique power and opportunity to control or lead the governance process where necessary without any fixed power for a single stakeholder. Put succinctly, Crosby and Bryson (2005) highlighted that leadership and control for the common good in the contemporary governance framework is shared among all actors depending on prevailing conditions such as expertise, indigenous knowledge, existing technology and innovation, regulatory restrictions, and resources among many others.

This harks back to the position of Bryson et al. (2014) that the traditional monopolistic controls enjoyed by the government are defused since its role keeps changing from the catalyst, and convener to partnering and steering in certain cases. The private business sector, NGOs and citizens' role equally changes to become co-creators, co-producers of knowledge and problem-solvers.

2.6 Climate Change and Governance relations: Drivers and Dynamics from a Post-NPM Perspective

Challenges facing 21st-century countries, communities and households continue to change in nature and magnitude. This has caused a change in the approach of governance practices towards contending with these complex problems. As a ‘tragedy of the commons’, climate change constraints continue to have far-reaching implications on almost all sectors of the World’s economy. Consequently, the conventional privilege possessed by public institutions towards managing prevailing societal problems appears to have assumed different forms. Addressing complex problems demands a reassessment of traditional modes of governance by questioning existing institutional set-ups, organizational capacity, expertise and motivations for taking key decisions. Climate change is a complex challenge and must be seriously regarded as such.

The complex nature of this menace necessitates the interdependence of all networks across levels and sectors. The relationship between climate change and governance appears not to be new. Traditionally, centralized strong powers possessed by the state were used through a top-down hierarchical process for policy decisions on climate change. This form has changed over time through powered social movements which triggered a multi-dimensional approach within the post-NPM era. The interdependencies of climate change and governance architecture have consequently become a critical matter of research interest. In doing so, existing studies have focused on areas such as the management aspect, environment arm, politics angle and even through the decentralized lens. As a complex crisis, climate change requires a comprehensive and integrated approach where all relevant stakeholders dialogue on major climate change policies and interventions.

The collaborative intervention of key actors from the climate change sector constituting the public actors, private sectors, voluntary groups and citizens for their common interest underscores the core tenets of the climate change governance regime. From this viewpoint, it is apt to question the efficacy of this new governance approach and the main drivers underpinning this system. Kickbusch and Gleicher (2012) highlight that tackling complex societal constraints cannot be successful unless through broader stakeholder collaboration. This means active state visibility, citizens' commitment, private sector inclusion and voluntary organization involvement are very critical if climate change is to be managed successfully.

The push for this emerging governance framework is hinged on three main drivers. First is the interdependent nature of contemporary climate change problems. Climate change constraints are far-reaching, and multifaceted and impact economic outturns, social endeavours, political fortunes and the environment. For instance, the private business sector affects the climate variously through the release of harmful substances into the atmosphere and environment as waste materials. At the same time, its operations and sustainability are being impacted by changes in climatic conditions since businesses rely on the environment for their business raw materials. Government operations and policy directions are also influenced by this same concept as well as the NGO sector. More importantly, the community within which citizens operate are the most vulnerable in terms of climate change.

The interdependence and multifaceted nature of this challenge make it imperative for remedial measures to be collaborative, participatory, integrative and multi-level at the same time (Ostrom, 1990; Elliott & Salamon, 2002; Agranoff & McGuire, 2003; Agrawal &

Lemos, 2007). Also, the complexity associated with the climate change menace tends to be a major driving force for stakeholders to collaborate. The climate change challenge is cross-sectorial and affects virtually all industries, regions, nations and communities. The complex nature of this problem demands that equal attention be offered. Emerson et al. (2012) posit that broader stakeholder integration throughout the policy process increases the capacity for critical public services which hitherto could not be accomplished by a single unit.

Agranoff and McGuire (2003) corroborate this earlier position by emphasizing that multi-level stakeholder involvement is driven by the urgency to address the complex crisis which cannot be addressed easily by a single sector. Another driving ingredient for an integrated governance system as espoused in post-NPM discourse is the unquenchable need for the co-production of knowledge between multiple stakeholders on tackling climate change concerns. The changing context of knowledge, expertise and capacity for solving complex societal challenges call for all relevant actors within public, private, NGOs and even communities to cohabitate. The knowledge and capacity of all the sectors and levels need to be married to address climate change issues in a concerted manner and to reap fully from the gains of a holistic approach. These 'trio-drivers' of interdependence, co-production and complexity are a result of the dynamic, complex and relational nature of government's problems in current dispensations.

Fröhlich and Knieling (2013) in the quest to conceptualise climate change governance, reveal that a climate change governance entails a broad range of options of coordination concerning climate change adaptation and mitigation with the active involvement of sectoral actors and cross-level institutions. That is, climate change governance involves the

cooperation of diverse institutions and stakeholders across hierarchy forms as well as the initiation of self-organizing climate change structures geared towards mitigating climate change impacts. Fröhlich and Knieling (2013) opine that climate change governance takes place within a sophisticated web of actors including state and non-state who operate from different levels but have some level of interest in ecological soundness. Climate change governance entails a broader spectrum of mechanisms involving integration from diverse institutional actors, rules and regulations and prudent structures to enhance climate change adaptation and mitigation.

Climate change policy governance covers a broader aspect of environmental concerns, institutional politics, administrative architecture, and governance which is witnessed through a decentralized framework in Ghana. The idea is that climate change is full of uncertainties, and fraught with inherent ambiguities, hence, its governance framework includes diverse actors and systems. In this regard, diverse sectors, actors, strategies and interests are accommodated for optimal adaptation and mitigation. Similarly, various rules and regulations relevant to climate change interact through a governance regime to solve climate change challenges. Within the cash crop sub-sector of the agricultural sector, climate change governance appears to be a major source of worry which is often overlooked in research.

In Ghana and most developing democracies in Africa, studies on climate change governance among cash crops such as cashew, coffee, rubber, and cocoa appear to be limited. Instructively, studies on climate change policies, programs and plans and how the governance of these policies plays out need to be examined. Such a broad policy ecosystem

presents a complex mix of short-term urgencies with long-term ambitions from the international level to the national and local levels.

2.7 Existing National Strategies and Institutional Architecture for Climate Change in Ghana

Climate change has been described as a ‘wicked problem par excellence’ due to the interconnected nature of the climate issue and the impact it exudes on humanity and economies. Climate change in Ghana’s cocoa sector is no more an abstract endeavour, but real and lived for most of the cocoa-growing communities. Therefore, the correct mix of different voices, actions and ambitions from multi-stakeholders across levels and sectors is needed to remedy the already worsened climate situation. Peters et al., (2022) indicate that managing this complex, unstructured and highly complicated global crisis demands requisite governance and policy capacity which pays close attention to stakeholders and institutions. Similarly, there is a pressing need, currently, more than ever, to break the ‘business-as-usual’ governance approach and adopt a more sustainable and integrative approach.

This also calls for comprehensive and strategic sectoral coordination and a complex interrelation among critical stakeholders at all levels (Fröhlich & Knieling, 2013). Among West African countries, Ghana can boast of an increased presence of climate change-related interventions with broader state-led institutional integration frameworks. These existing institutional frameworks exist to champion the integration process of major priorities and objectives of government into their respective sectors such as energy, agriculture, water resources, health and transportation. Currently, Ghana has seven major

policy frameworks, strategies, programmes and plans running concurrently on climate change concerns with a National Climate Change Master Plan Action programme for Implementation.

This includes the Economic and Social Development Policy spanning between 2014 and 2020, the Reducing Emissions from Deforestation and Forest Degradation Strategy of 2015 often referred to as the REED+ strategy, Ghana's Third National Communication of 2015 and Ghana's Intended Nationally Determined Contribution of 2015. Also, the Ghana National Climate Change Policy and the National Climate Change Adaptation Strategy as formulated in 2012 and 2013 respectively. The National Action Program to Combat Drought Desertification of 2012 and the UNFCCC Initial National Communication in 2001 are all existing national strategies, plans and policies in Ghana. Despite the formulation of these ambitious strategies, implementation mechanisms have been purely state-led with specific roles dedicated to various state institutions.

The National Climate Change Committee (NCCC), Environmental Protection Agency (EPA), Ministry of Environment, Science, Technology and Innovation (MESTI), Ministry of Lands and Natural Resources, Ministry of Finance and Economic Planning, Ministry of Food and Agriculture, Ministry of Health, Ministry of Fisheries and Aquaculture Development and the Ministry of Energy and Petroleum provides the necessary policy directions for climate change-related issues. However, the daily planning and implementation of climate change concerns lie within the remit of parastatal institutions such as the National Development Planning Commission (NDPC), Energy Commission, Forestry Commission, Council for Scientific and Industrial Research, Forestry Research Institute, Ghana Health Service, National Disaster Management Organization (NADMO)

and Ghana Meteorological Agency. Among these state institutions, coordination appears to be effective with the sole aim of enhancing the attainment of climate change deliverables. Even though delivering these strategies requires more comprehensive collaboration, the role of the business community, and NGO sectors appears to be limited, and in most instances, non-existent.

2.8 Key Impact of Climate Change and Sectorial Vulnerabilities in Ghana

As a global challenge, climate change continues to impact negatively on all nations and even more severely on developing countries like Ghana due to the inability of these nations to deal effectively deal with the causal factors. Climate change in Ghana appears to be very complex with far-reaching implications on various sectors of the Ghanaian economy such as the health sector, lands and natural resources sector, agricultural sector and aquatic resources sector exist due to the reliance on climatic conditions (USAID, 2017).

First and foremost, the lands and natural sector entails the wildlife and wildlife habitat, forest resources, vegetative covers, nature-based tourism resources, non-timber forest resources, and landscapes among many others (USAID, 2017). Through climate change impacts, these resources are often depleted and adversely affected without measure and even more so in Ghana. The idea is that most communities in Ghana continue to be more dependent on these climate-sensitive resources. In Ghana, climate change has impacted adversely land use behaviours and land values. Climate change has caused a loss of vegetative cover and arable land, the geographical shift of various animal species and the loss of evergreen forests. It has equally resulted in a significant reduction in timber and non-timber forest resources, extinction of wildlife species as well as mass-migration of

some wildlife species, poor land fertility due to erratic rainfall patterns, flooding and erosion of coastal areas in diverse ways.

This is attributable to drought, poor farming practices, pervasive forest or bush burning, deforestation, illegal logging and erratic rainfall patterns and other climate change-related happenings. The WHO (2016) observe that climate change has equally affected human health both directly and indirectly in many countries of which Ghana is no exception. This is attributable to the heightened exposure to extreme heat waves, excessively cold weather, drought, uncontrolled flooding, storm surges as well as increases in air pollutants. These weather and temperature variations tend to influence the transmission and spread of various infections, bacteria, and rashes as well as the breeding of harmful algae (Kilpatrick et al., 2008). This increases the risk of infectious diseases and the prevalence of non-communicable diseases due to air pollution among many other human health complications.

Moreover, the impact of climate change has caused a significant shift in the agricultural sector. Perhaps, this is due to the overreliance on rain-fed farming practices which have shortened growing seasons and increased the incidence of pest and crop diseases. Hence, the changes in rainfall patterns have impacted negatively on agricultural productivity. This has resulted in crop failure in critical areas of the national food chain and caused food insecurity in most communities in Ghana. Indeed, rising temperature conditions with their associated droughts have also affected Ghana's cocoa production. Asante and Amuakwa-Mensah (2015) highlight that cocoa, which features as a major cash crop and a major foreign exchange earner for Ghana, has been adversely affected by the incidence of climate

change. Rising sea levels have caused a significant diminish in agricultural lands and further reduced crop yields.

The cocoa sector remains key in terms of agricultural production in Ghana and has been affected grievously by the adverse impacts of climate change. Climate change has also rendered most of Ghana's aquatic resources very vulnerable. The fisheries and water resources subsector which constitute a significant portion of the Ghanaian daily meal appears to be on the attack of climate variability and has caused a reduced freshwater fish stock. The increased sea/water surface temperature has affected the seafood production in the Volta Basin, Lake Volta, Lake Bosomtwe, Volta River, Bia River, and Tano River and has caused a significant decline in the fisheries sector productivity, quantity and quality of water for human consumption among others. This has also affected the livelihood and income of most fishing communities and further caused a nutrition deficit for most Ghanaians due to the reduced availability of protein-based foods.

The multifaceted nature of climate change impacts demands that efforts towards addressing these constraints be done more comprehensively and holistically. That is, Inter-sectorial action for climate change policy governance in Ghana remains an imperative which needs to be pursued with all the necessary attention and strategy. Currently, there is an overwhelming shift in governance approach towards a synergistic approach where all key stakeholders within the governance framework are well featured throughout the governance process. This change in approach appears to be consistent with the on-going surge towards an integrated governance approach which appears to be consistent with the ideals of synergistic global governance where solutions are interdependent in various ways.

Also, the complexity of these wicked problems calls for systems approaches and networked responses at all levels and sector demanding policymakers to move out of their policy silos into collaborating with other players.

2.9 Theoretical Perspective: Integrated Public Governance Theory

The traditional role of government bureaucracies in addressing societal constraints independently has become blurred over the past three decades. As a new approach to the public policy process, the Integrated Public Governance Theory has now become a buzzword in contemporary development studies literature advancing a move towards the involvement of the public, private, NGOs and citizens in the policy process (see e.g.: Elliott & Salamon 2002; Edwards et al., 2012; Fung 2015). The complexities and multiplicity of contemporary societal challenges necessitate stakeholder interaction as increasingly observed in a post-new public management (NPM) era. That is, the interplay of multiple actors through a self-organizing network is what Goodsell (2006) postulates as “integrated public governance theory”.

The dynamics of interpersonal and group interactions between key institutions or constituencies tend to shape the policy process. The theory features predominantly within the environmental governance subfield even though it equally remains applicable in other fields. Chief among contemporary environmental concerns is the emergence of climate change. This study draws from this theory and advances the rationale for forging stronger interactions among multiple actors in the governance of climate change policy. The justification lies in the ability of integrated public governance to encourage shared responsibilities, build collaborative relationships with all relevant stakeholders and better information dissemination for climate change policy mainstreaming within communities.

Edwards et al. (2012) posit that this idea connects with the broader ideals of deliberative citizenship which serves as a necessary condition for contemporary climate change policy discourse.

The notion of a “shrinking state” as revealed by Agrawal and Lemos (2007) has resulted in lowered state capacity in many facets of nation building including financial human resource mobilization for environmental policies. This reduced state capacity has even more serious ramifications on developing countries like Ghana as environmental protection interventions are adversely affected. The public sector’s exclusive intervention in climate change issues is therefore problematic. In this regard, public bureaucracies at various levels, private business actors, voluntary non-governmental organizations and the community with common policy interests interact and collaborate in dealing with societal problems.

The Integrated Public Governance approach is not without criticisms as pertains to every theory and more particularly within the social sciences. The tendency of private interest to suppress the general interest of the public is a worrying phenomenon in this space. Elliott and Salamon (2002) cautioned against the likelihood of powerful private co-operations’ interest overriding the overarching public good mandate underpinning the network. Another criticism of the theory is the difficulties involved in understanding the various levels of involvement, who to involve and the mechanisms for involving stakeholders. Notwithstanding the criticisms associated with this theory, its gains are worth illuminating. That is, forging a stronger climate change policy governance regime demands formidable interactions among stakeholders. As revealed through the findings of the EU’s ADAM project “Global climate policy beyond 2012 requires a strong, integrated governance

architecture that involves both public and private actors and that provides a regulatory framework for both mitigation and adaptation.

Highly fragmented global climate governance is likely to be more costly, less effective in terms of environmental goals, and less equitable regarding smaller countries, particularly in the global South'' (Hulme et al., 2009:20). A new governance architecture that integrates all critical stakeholders from the public, private, third and community level is more significant than a fragmented regime which poses excessive cost and minimal benefit to developing countries. In this regard, the integrated public governance theory forms the theoretical point of departure for the study. The centrality of the arguments puts forward, so far, presents a pluralistic constellation of stakeholders as the ideal framework required for the governance of climate change policies and public policies as a whole, considering the extensive nature of the climate crisis and its impacts on humanity.

2.10 Conceptual Framework

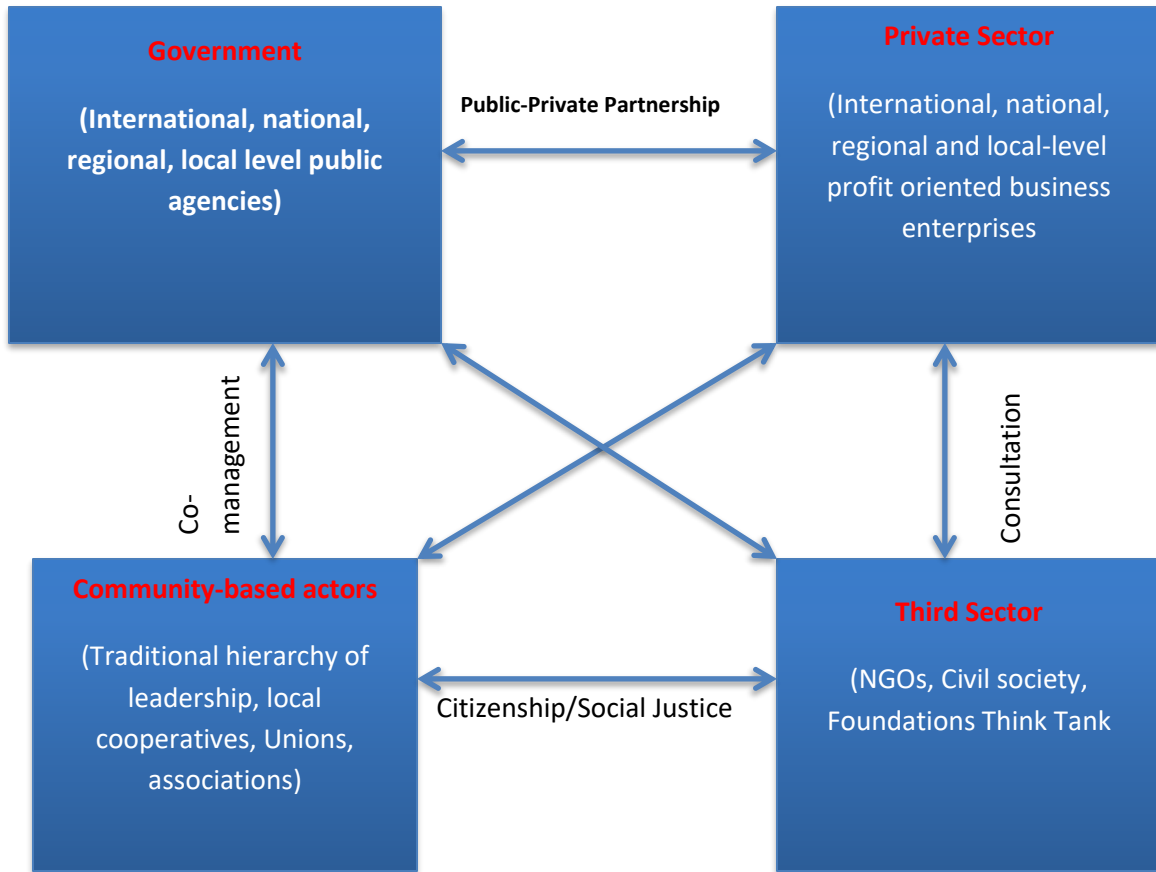
The ubiquitous nature of the concept of governance presents lots of complexities hence very difficult to lend itself to a particular conceptualization. Put succinctly, governance of climate change policies appears to be multifaceted and entails numerous stakeholder networks with different interests and demands. Consequently, the traditional state-centric controls and public bureaucracies appear to have paved the way for a more integrated and inclusive governance framework across all fabrics of the policy governance process. The complexities associated with climate change and its attendant policy governance processes underscore the essence of a broader interactive phenomenon. Stakeholder networks spanning public or central government bureaucracies, private or business sector actors, the

third sector as well as local communities and their hierarchy of leadership have become more significant than ever.

The Integrated Stakeholder Governance Framework (ISGF) as shown in the following figure (Fig.2.1) indicates and provides a summarized understanding of the uncompromising nature and unquestionable need for broader stakeholder integration. The idea of Integrated Stakeholder Governance stems from the position that governance of climate change policies within the cocoa sector is multifaceted with evidence of varied network groups representing different interests. The traditional state-centred approach towards public governance appears to have paved the way for a more integrated system of governance where power and responsibilities are shared among key stakeholders (See Berkes et al., 1991). Key stakeholders such as central government institutions and international state corporations, local communities, local and international business enterprises as well as the third sector consciously organize for the governance of mutually beneficial social endeavour.

Through this, climate change and sustainability become the heart of governance strategies at all levels and sectors. In much the same way, stakeholder groups who usually may not necessarily have aligned interests can have their differing interest considered through integrated public governance. Actors from the public, private, third sector and community-based groups have interests and power differentials, hence, nurturing a good relationship produces optimal-net benefits for effective governance and sustainable development. The relationship between these four main actors varies depending on the stakeholder groups in question and their interests in climate change. The framework details the nature of relations and the actors involved in the process.

Figure 2.1: Integrated Stakeholder Governance Framework



Source: Author's Conceptualization, 2022

The Integrated Stakeholder Governance Framework espouses the point that climate change within the cocoa area is visible and seemingly interconnected in numerous ways. This requires a pragmatic governance approach where all relevant actors are well captured in the governance process of climate change policy governance. This view hinges on the standpoint that effective cross-sectorial interaction allows for diverse stakeholder interests from heterogeneous backgrounds to be considered. Undeniably, holistic stakeholder interest and broader involvements of a network of actors cause conflicts and difficulty in building policy consensus. However, Heywood (2004) carefully argues that these conflicts should not shy stakeholders away from engaging each other since consensus building remain an offshoot of the purposeful stakeholder integration process.

Stakeholder groups may be multi-layered with the vast interplay of broader interests and standpoints (See Table 2.1) which forms a critical part of every policy governance process.

Table 2.1 Stakeholder Groupings and Underlining Interests

Stakeholder Groups	Layers of Actors	Underpinning Interest
Government	-State-Level MDAs -International Public Corporations and Agencies -Local government/state institutions.	- Pursuing statutory mandates and upholding national interests. -Concerned about sector-specific effectiveness and productivity. -Regulating other players.
Private/ Business Sector	-International private companies -National private companies and -Local businesses	-Ensuring profit maximization and sustained economic interests. -Meeting customer expectations.
The Thirds Sector	-International think tanks, NGOs, CSOs -National-level think tanks, NGOs, CSOs - Think tanks, NGOs, and CSOs with local interests	-Ensuring civil/social justice, citizenry rights, -Environmental protection -Knowledge sharing. -Empowerment of key actors
Local Community	-Traditional leaders -Religious groups -Organized local groupings such as youth groupings, market associations, and town-square leaders.	-Having prolonged access to local resources and environment. -Sustainable Local livelihood -Preservation of local habitat

Source: Author’s Conceptualization, 2022

2.11 Conclusion

Anecdotal evidence suggests that cocoa production in Ghana emerged around 1870. Increased production of the cocoa bean as a major cash crop led Ghana to become the World's leading producer from 1911 until the late 1970s when that was the title to its neighbour, Ivory Coast. This significant drop from 40% in the late 1970s to 12% in the early 1980s of cocoa production in Ghana was attributable to the reduction in the World's cocoa price. This and the severe drought at the time forced most farmers to drift towards the production of alternative crops. To sustain the operations of the sector and to enhance cocoa production, there is a need for a close analysis of the various policies within the sector and how governance of these policies engenders optimal production.

Notwithstanding the contributions of the cocoa sector to the Ghanaian economy, measures aimed at strengthening the existing governance arrangements of the sector appears to be elusive and less integrative. Considering the considerable number of stakeholders involved in the cocoa sector and the upsurge of climate change crisis within the sector, it is very imperative to examine the governance dynamics of climate change policies, strategies and plans with a specific perspective from the Ghanaian sector. Climate change in Ghana's cocoa sector is no more an abstract endeavour, but real and lived for most of the cocoa-growing communities. Therefore, the correct mix of different voices, actions and ambitions from multi-stakeholders across levels and sectors is needed to remedy the already worsened climate situation.

Thus, the cocoa sector of the Ghanaian economy requires a comprehensive governance approach towards dealing with this global 'complex crisis'. Asare-Nuamah et al. (2019) observe that even though the government has instituted several climate change-related

strategies; most of these interventions appear to be largely state-led. Attempts made at integrating these policies into other layers of the national development plan level appear to be limited with little collaborative governance approach from all stakeholder groups (Naab et al., 2019). In much the same way, building resilience to the inevitable impacts of climate change requires a collaborative governance framework among stakeholders in the cocoa value chain. The rationale for an integrated stakeholder governance regime lies in the heightened levels of interest and empowerment of different interest groups with imbalances in power distributions.

Based on this background, this study aims at achieving three main objectives. First, the study examines the governance of climate change policies in the cocoa sector. Secondly, the study investigates the stakeholder integration and the underpinning forces driving stakeholder involvement in the governance of climate change policies in cocoa. Last, the significance and barriers to comprehensive stakeholder integration in the governance of climate change policies are explored. The key theoretical arguments and their relevance to the scope of your research include:

- Climate change remains a complex global challenge and requires a comprehensive governance architecture.
- A disjointed stakeholder governance approach stands to be counterproductive considering the vast nature of climate change impacts and the involvement of numerous stakeholder groups.
- Integrated public governance theory makes a compelling case for the active integration of key stakeholders throughout the process of dealing with the complex crisis.

- Integrated public governance allows for the integration of actors from different levels and sectors including the public sector, private sector, third sector and community actors.
- This comprehensive governance architecture fosters environmental sound practices and sustainable development.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

The research methodology section entails the main process and procedures underpinning the study in terms of the overall approach and methods. The chapter clarifies and appropriately justifies the philosophical orientation or research paradigm within which the study is situated. The methods and approaches associated with data collection, sampling technique, population size, justification for selecting the study area, instrumentation developed for the study, data management and analysis are also included in the chapter. The section begins with the research paradigm within which the study is situated. The research approach, study design, methods and techniques used in conducting the study and data collection are equally highlighted as well as the sampling strategy and the sample size for the study.

3.1 Research Paradigms

The paradigm adopted by particular research determines the fundamental route to be taken throughout the study process. As typical of most research philosophies, the concept paradigm is understood differently depending on the scholars. In the view of Mac Naughton et al. (2001) research paradigm entails three major components including the nature of knowledge, the benchmarks for determining the validity of research and the methodology guiding the entire study. Cresswell (2003) equally highlights that the research

paradigm is composed of three core elements including ontology, epistemology and methodology. Mackenzie and Knipe (2006) extend the boundaries of the discussion by positing that the research paradigm is comprised of constructivist, positivist/post-positivist, interpretivism, pragmatism and transformative.

Other scholars also mention positivism, critical realism, interpretivism, postmodernism and pragmatism as the five main research philosophical underpinnings in business and management research. These variations in thoughts and composition tend to distinguish scholars in terms of their thoughts and methods advance in conducting research. Despite these varied perspectives on research, the study intends to employ the interpretivist paradigm as the main research philosophy. The choice of this paradigm is explained by its ability to accommodate researcher reflexive interpretations, new understandings and different worldviews as contributions as critical in addressing complex social problems.

3.1.1 Interpretivist Paradigm in Focus

This study is anchored on the interpretive research paradigm due to the significance of human-driven experiences and perceptions in conducting a study of this nature. For instance, relying on this paradigm allows for the thorough discovery of respondents' understanding and background on the issues under discussion. More importantly, the interpretive paradigm allows people to be recognised as conscious and purposive actors holding varied views of their immediate and remote environment. The meaning attached to societal phenomena depends on the experiences and knowledge of individuals. These ideas and experiences of participants form the basis for societal constructs and inform the solution processes for prevailing social problems. Considering this, the study adopts the

interpretivist paradigm to gather experiences and knowledge from respondents to construct and interpret understanding that is useful for addressing the research problem under consideration.

More importantly, the justification for employing the interpretivist paradigm is to elicit in-depth understanding, knowledge and lived experiences from participants to understand the governance dynamics of climate change policies in Ghana's cocoa sector. This justification is consistent with the views of Yanow and Schwartz-Shea (2011) who posit that researchers adopting interpretivist paradigms can uncover social realities and in-depth knowledge through the experiences of participants on the prevailing issues within their environment. This drives home the point that contextual realities from participants on their background remain critical to the interpretation of responses in research. These contextual realities may be multiple and highly subjective based on the experiences, background and perceptions of respondents hence very useful for studies championing participatory and holistic representation of all stakeholders such as this very one.

The rationale for the interpretivism paradigm is that both pieces of knowledge of social constraint and methods for addressing these challenges are subjective depending on the existing social fabric. Using this method allows for subjectivity in the knowledge and perception of social problems as well as processes for fashioning out socially acceptable methods. In this instance, the interpretivism paradigm provides the research with a unique opportunity to co-creating knowledge through the active participation of respondents within the study area. To co-create and share knowledge on the subject under discussion, a qualitative case study approach will be employed through key informant interviews, review of relevant secondary data and Focus Group Discussions (FGD). This is to allow

for a comprehensive understanding of expert views on the governance of climate change policies, and perusal of cardinal reports of all relevant Ministries, Departments and Agencies (MDAs) to arrive at informed conclusions.

Adopting the interpretive paradigm in this study is explained by the crucial need for in-depth information and deep insights into the research problems under consideration. The focus is on rich narratives, stories, perceptions and interpretations of knowledge which is socially constructed based on existing realities.

3.2 Research Approach

Perspectives remain varied on how academic exercise can be conducted in trying to explore societal problems through a research lens. Approaches such as qualitative, quantitative and mixed methods exist for all researchers depending on the scope and focus of the study under consideration. Researchers have the laxity and autonomy to choose any research approach deemed fit for a particular study. In doing so, the focus and nature of the study need to serve as a guide (Cresswell, 2003). To understand the governance of climate change policies in Ghana's cocoa sector, this study shall be hinged on the qualitative research approach. In this regard, the study stands to gather rich and hard-to-reach concerns which hitherto could have been impossible to elicit from respondents.

3.2.1 Qualitative Research Approach

The study is underpinned by the qualitative research approach as opposed to other research methods such as quantitative and mixed methods. The qualitative research approach provides a unique opportunity for understanding a particular phenomenon through varied perspectives emerging from respondents who have an in-depth understanding of their

background and issues under investigation. Through this approach, complex contextual realities are discovered and interpreted in a manner that is socially driven and contextually acceptable for managing social concerns. Tracy (2010) highlights that this approach is sometimes criticised for its vast allowance for individual opinions, less reliability and validity and difficulties in generalizing as compared to the quantitative approach. However, the advantages of this approach remain enamoured and far-reaching to be downplayed.

For instance, McQueen (2002) indicates that through a qualitative approach, interpretive researchers can obtain an in-depth understanding of the relationships between community members and their environment as well as their responsibility in harnessing efforts towards addressing existing community challenges and how such interplay stands to enhance development. These social networks were created to form the basis for charting a concerted effort against the societal menace. Interpretations about the realities existing within a societal setting are seen not through the opinions and background of a particular person or a singular entity but rather through multiple and varied individual perceptions. The qualitative approach, therefore, allows for multiple viewpoints and varied perceptions of the major causes of societal problems to be unearthed.

Similarly, in approaching these predicaments, subjectivity in terms of multiple and varied viewpoints is harnessed and the best and most championed views are adopted. In this instance, objective and precise views of social problems as well as solutions are not known unless through proper social scanning and broader engagement across societal actors. Quite consistent with this position, Cresswell (2012) avers that through qualitative research the understanding and knowledge of individuals and organizations on existing social and human problems are explored and solutions are tailored in a more congenial manner. This

allows for social complexities and emotional tendencies of respondents to be captured in scaling out solutions for those contextual problems. Notwithstanding the adduced gains associated with the qualitative research approach, its foundation appears to have attracted some criticisms.

For instance, proponents of the quantitative positivists observe that qualitative research is less robust, not easily generalizable, lacks objectivity and inferior quality of research findings and is not always reliable as it lacks ‘science’ (Denzin et al., 2006; Denzin & Lincoln, 2011; Tracy, 2013). Contrary to this position, Denzin and Lincoln, (2011) indicate that qualitative offers numerous potential which does not come in handy with quantitative research in social science. Qualitative research considers experiences, contextual realities, observations, emotional situations and values of respondents and complexities associated with the issues under investigation. This allows for the generation of rich and very useful data with a small sample size through interviews, conversations, field notes, discussions, and recordings among others. As posited by Tracy (2013), qualitative researchers benefit from the unique opportunity of understanding the natural settings of the research areas.

This allows for sense-making, experience generation, interpretation, and a thorough understanding of the phenomenon under investigation (Denzin et al., 2006; Denzin & Lincoln, 2011). To ensure quality in the research output of qualitative research, triangulation and corroborations are often used as the main approach in exploring a social phenomenon. In employing a qualitative approach, this study intends to examine the governance of climate change policies in Ghana’s cocoa sector through a naturalistic setting appropriate for a qualitative approach. Investigating the governance dynamic of climate change policies also creates a congenial environment for qualitatively assessing

stakeholder networks and the linkages between various stakeholder groupings within the cocoa sector.

The study also disentangles the forces driving the collaboration between stakeholders and how these forces shape the climate change policy governance process as well as the significance and barriers of stakeholder integration. Going through this process requires a qualitative approach hinging on key informant interviews, FGD and careful perusal of already existing reports and documents relevant to the issues under investigation. More so, attaining expert information on the governance of climate change policies in Ghana's cocoa sector and the nuances inherent in stakeholder integration is a research concern which cannot be fully executed without clinging to the qualitative approach. This is so because of the complexities involved in handling climate change concerns and governance interventions within local communities with all relevant actors and the power imbalances make qualitative necessary.

The qualitative approach in this study is used to harness an in-depth understanding of the complex and sensitive issues under consideration to provide evidence-based recommendations for policy and practice (Harrison et al., 2017). More importantly, the qualitative research approach is ideal for this study due to the broad nature of the research issues under discussion and the need to examine, explore, interpret and understand the research objective within a social context. The ultimate aim is to understand the multifaceted nature of the phenomenon under study through a variety of lenses. Understanding the complex and diverse nature of climate change governance is accomplished by direct engagement with identified respondents who narrates their

experiences, concerns and viewpoints from their association with the natural setting within which the study is situated (Cresswell, 2012).

Moreover, the study solicits expert information on the issues under investigation by interacting with relevant top-level experts from the public sector (MDAs), private sector and the third sector as well as well-informed respondents from community-based stakeholders. This creates a unique opportunity for an in-depth understating of the main issues under investigation and how they play out in the broader climate change governance framework. Triangulation and systematic corroboration of the key findings from the respondent were carried out in the spirit of qualitative research to ensure the quality of data and the relevance and reliability of the data findings. Multiple data sources gathered through in-depth interviews, FGDs, field observations, relevant reports, and documentary reviews were carried out to enhance the rigour, coherence and credibility of the data gathered to make useful contributions to literature and practice.

Moreover, qualitative research allows the use of ‘lived experiences’ and hand-on knowledge on the matter under discussion from individuals who have established knowledge in the natural setting (Denzin et al., 2006; Denzin & Lincoln, 2011).

3.2.2 Case Study Research Technique

Techniques for conducting qualitative research remain enormous and may include case study, grounded theory, narrative research, phenomenology, ethnography, participatory, and historical strategies among many others (See: McQueen, 2002; Cresswell, 2003; Tracy, 2010; Creswell, 2012; Harrison et al., 2017). Even though many strategies abound within this realm of research, this study is conducted through the case study research technique considering the diverse impact of climate change and the severity of its impact. By adopting

a qualitative case study strategy, the study explores a phenomenon within a selected social context by using data from multiple sources for the ultimate aim of making evidence-based proposals and informed policy recommendations.

Tracy (2010) observes that through a case study technique, complex social problems are explored from the perspectives of individuals, organizations, communities and programs by deconstructing social realities to reconstruct those existing phenomena. This allows for a comprehensive understanding of the subject matter and a holistic revelation of major issues and dynamics of a complex social concern. The multiple case study design within the qualitative research approach shall be adopted for the study. This approach is deemed appropriate because it enables the researcher to identify key informants who would provide the relevant information needed to achieve the research objectives. Case studies are the preferred strategy when the focus of the study is hinged on answering ‘why’ and ‘how’ questions (Yin, 2003).

The choice of a case study strategy is more compelling since the real-life behaviour and perceptions of individuals participating in the study cannot be manipulated in any way. Creswell (2012) contends that an equally important justification for the use of a case study is the need to cover a contextual condition due to its exceeding relevance to issues under discussion. This study aims at examining the nuances inherent in the governance of climate change policies in Ghana’s cocoa sector and how stakeholder integration plays out in the management of climate change issues in cocoa. The study achieves this objective by adopting a multiple case study including one cocoa district (Berekum Cocoa District), which spans more than three Local Government District Assemblies in the Bono Region

of Ghana as well as key institutions from public, private and the third sector of Ghana's cocoa was employed.

The geographical context within which the study is conducted is selected purposively due to the high presence of climate change on cocoa production within this area. This study context is situated in the Northwest of Ghana's cocoa belt where cocoa suitability is highly contested due to the live evidence of climate change. The study area also has a high cost of stakeholder inaction causing an annual cocoa loss of more than 60% (See: Bunn et al., 2019). Additionally, the study employed respondents across the various sector in Ghana considering the need for rich data, detailed respondents and complete data. The selection of multiple data sources is to ensure the validity of data from responses. Stakeholder actions through an integrative governance framework for spurring up adaptation cannot be downplayed in these areas hence the adoption of a case study design in this study. This is attained through a thorough assessment of how interactions between formal and informal institutions shape the governance practices among communities and people within this study jurisdiction.

3.3 Sampling Technique and Sample Size

This study aims at shedding light on the nuances inherent in the governance of climate change policies in Ghana's cocoa sector and the nature of stakeholder integration through a qualitative case-study lens. The population of the study is made up of all relevant MDAs, private enterprises and third-sector actors with a focus on climate change-related issues in the cocoa sector. However, to achieve the objectives of the study, selected organizations within the public, private and third-sector organizations were targeted for this study to gather diverse experiences and responses. The study set out to interview 57 respondents

for semi-structured interviews with two FGDs earmarked to compliment the interviews. This study adopted a two-stage selection procedure with the first stage dedicated towards the selection of respondents from the public sector and the private sector.

The second stage involved selecting participants from the third sector and the community-based stakeholders to gather responses on the governance of climate change policies in cocoa. To attain the objectives of the study, three broad sampling strategies including convenience or random sampling, judgment or purposive sampling and theoretical sample are available (See: McQueen, 2002; Cresswell, 2003; Tracy, 2010; Creswell, 2012; Harrison et al., 2017). These techniques come with their inherent advantages and disadvantages in a typical qualitative study, however, this study was mainly underpinned by the purposive sampling technique as opposed to the other two sampling regimes. The rationale for adopting a purposive sampling technique is to illuminate and discover richer insights and an in-depth understanding of the phenomenon under discussion from the key informant.

The purposive sampling technique allows for the deliberate selection of respondents who possess very rich experience and in-depth knowledge of the issues under discussion (Harrison et al., 2017). Consistent with the tenets of this technique, the study selects respondents whose experiences, knowledge, backgrounds and insights meet the main objectives of the study. A sampling of respondents from relevant national and local level government agencies, parastatal institutions, private enterprises within the cocoa value chain, NGOs as well as organized cocoa farming groups and cooperative societies were purposively selected. In doing so, emphasis was placed on individuals who were proficient

and possessed in-depth understanding, knowledge and experience on the issues under consideration.

Within the public sector, the study sampled respondents within the two Municipal Assemblies selected. Officers including the Municipal Chief Executive (MCE), Municipal Coordinating Director (MCD), Municipal Planning Officer, and District Agriculture Extension Officer in the two municipalities were selected purposively for data collection purposes. Selected officers within the Berekum cocoa district of the Ghana Cocoa Board (COCOBOD), officers of the Ministry of Food and Agriculture (MoFA), FC, EPA, MESTI, MLNR, officials of the Cocoa Processing Company Limited (CPCL) were also interviewed from the public sector. The study also interacted with selected members of the National Climate Change Committee (NCCC), and members of the National Development Planning Commission (NDPC).

Moreover, respondents were drawn from the Parliamentary Select Committee on Agriculture and Cocoa Affairs considering the central role of the committee in managing cocoa and agricultural-related issues as a parliamentary committee. Regarding the private sector, respondents were selected from private Licensed Buying Companies (LBC). Similarly, officials from the two-selected private Cocoa Processing Companies (CPC) were interviewed to understand how integrated they were in the governance of climate change policies within the cocoa sector of Ghana. Succinctly put, private LBCs such as Kuapa Kokoo Ltd, Olam, Touton West Africa and Mondelez Int., and Cocoa Life was selected as respondents for the study. Regarding private CPCs respondents were drawn from Cargill Ghana Ltd and Unicom Co. Ghana Ltd to solicit responses for the attainment of the study objectives.

In the NGOs sector, players within the community under study, national-level NGOs and NGOs with international affiliation as well as international NGOs operating locally in Ghana were also sampled. Specifically, community-based cocoa NGOs such as Conservation Alliance, National Cocoa NGOs such as Rise Ghana, National Cocoa NGOs with International partnerships such as Rainforest Alliance and International Cocoa NGOs operating in Ghana like Solidaridad West Africa were involved in the study as respondents. Perspectives of local farmers were sought through community-level cooperative societies/unions with a focus on cocoa farming such as the Kuapa Cocoa Farmers' Cooperative Union and the Cocoa Abrabopa Farmers' Cooperative Association.

Also, District Best Cocoa Farmers who are still active in cocoa issues for the past three years together with some assembly members were interviewed for a proper understanding of the governance dynamics within the cocoa sector in the wake of climate change policies at the lowest level of the governance framework in Ghana. The justification for broad participant categories in this study is to explore evidence of stakeholders' interactions or otherwise in the multi-level governance framework existing in Ghana's cocoa sector. This further allows for a thorough investigation of the context within which climate change policymaking and implementation occur and the driving forces underpinning the complex interplay between key stakeholders at the various policy governance levels. In all, 53 semi-structured interviews were conducted together with 2 FGDs.

This sample size appears to be justifiable considering the positions espoused by early researchers such as Boateng and Agyemang (2015) as well as Hinson and Mahmoud (2011) who employed a sample size of 25 and 14 respectively for their qualitative studies. Besides, the sample size used by this study was representative of the core stakeholders involved in

the governance of climate change in Ghana’s cocoa. The study also constantly monitored the ongoing media discourse on the governance of climate change policies in cocoa to check for variations and confirmation of the data already collected from the field studies in Ghana.

Table 3.1 below presents the breakdown of semi-structures interviews and FGDs sampled for the fieldwork.

Table 3.1: Breakdown of Semi-Structured Interviews and FGDs Sample

Respondent Group/Name of Institution	Number of Semi-Structured interviews Conducted	Number of Focus Group Discussions
Municipal Assemblies: 1. Berekum East Municipal Assembly 2. Berekum Municipal Assembly	4	
COCOBOD HQ	1	
Berekum Cocoa District of COCOBOD	1	
MLNR	1	
MESTI	1	
FC	2	
EPA	2	
MoFA	2	
NDPC	1	
NCCC	1	
Parliamentary Select Committee on Agriculture and Cocoa Affairs	1	
Private LBC’s 1. Kuapa Kokoo Ltd 2. Olam 3. Touton West Africa 4. Mondelez Int Cocoa Life.	4	
Private CPC’s 1. Cargill Ghana Ltd 2. Unicom Co. Ghana Ltd	4	
Community-based cocoa NGOs 1. Conservation Alliance	1	
National Cocoa NGOs 1. Rise Ghana	1	

National Cocoa NGOs with International partnerships 1. Rainforest Alliance	1	
International Cocoa NGOs operating in Ghana 1. Solidaridad West Africa	1	
Community-based Cooperative Societies 1. Kuapa Cocoa Farmers' Cooperative Union 2. Cocoa Abrabopa 3. Others	9	1 (9 participants)
District Best Cocoa Farmers	3	
Assembly Members	3	
Traditional Leaders	4	1 (8 participants)
Religious groups	4	
Youth Groups	1	
TOTAL	53	2 FGDs

Source: Author's Construct, 2022

3.4 Data Sources, Research Instrumentation and Data Analysis

The study seeks to examine the governance of climate change policies through an integrated governance approach within the cocoa sector as the focus. In doing so, both primary and secondary data sources were employed for the study. Primary data collection sources involved key participants selected from key respondents sampled from the public sector which includes Ministries, Departments and Agencies, as well as District Assemblies of the study areas. The study also interacted with private sector players within the cocoa value chain with both local and international backgrounds and proven track record of interest in sound environmental practices. Similarly, community-based actors including traditional authorities, religious groups, assembly members and unit committee members and other players constituting the citizenry or community stakeholder network as well as players within the third sector were interacted with to gather primary data for the study.

In sourcing all these responses, purposive sampling techniques were generally adopted considering the need for expert information and knowledge on climate change issues from the natural cocoa environment. This was to allow the researcher to identify participants who were very informative and relevant to the phenomenon being investigated and to gather relevant and in-depth data to achieve the research objective (Neuman, 2007; Harrison et al., 2012). Secondary data were also drawn from relevant reports, policy briefs, documentaries, newspapers, peer-reviewed articles, books and other existing documents to situate the study in an existing scholarly framework.

Regarding the research instruments, the in-depth interview technique was used to collect data from participants who were selected for the study. In-depth interviews provided an opportunity to obtain more details about an issue or experience and are especially useful for exploring experiences and the real facts from the respondent. This instrument enabled the respondents to bring out their views and experiences in their own words and gestures; it also enabled the researcher to understand the phenomenon even from the body languages and emotions of participants. Because this method elicits people's views and accounts, it could have the additional benefit of uncovering issues or concerns that had not been anticipated or considered by the researcher before the data collection. All interviews took a face-to-face approach and were more interactive, as each session lasted between 45 minutes and 1 hour.

Overall, the interviews assumed a semi-structured format, with each interview question designed based on the emerging themes from the literature review. Each session was facilitated through the use of a semi-structured interview guide and follow-up questions posed whenever necessary to seek clearer and more detailed responses from key

informants. All interviews were flexible and afforded respondents the freedom to express themselves on how governance of climate change policies takes place, the nuances inherent in stakeholder integration and how stakeholder integration shapes sustainable production of cocoa. Moreover, the use of semi-structured interviews was to afford respondents the opportunity to provide explanations, different viewpoints, experiences and concerns which were relevant to the issues under exploration. All interviews were recorded with an audio device and field notes were taken to serve as back up considering the possibility of technological failures.

As evident in table 3.1 above, 53 interviews were conducted in all. Furthermore, 2 separate FGDs were conducted to corroborate the responses generated from the semi-structured interviews. The rationale for conducting these supplementary FGDs was based on its characteristic of being capable of producing insightful, unregulated responses and spontaneous information from participants which were typically unavailable in the case of interviews. All 2 FGDs were purposively constituted with participants with the same or similar characteristics this was to make sure that all participants had similar experiences and expertise on the issues under investigation. The questioning format, time allotted for the FGDs, number of participants in each group and the techniques employed by the moderator were well managed to engender smooth discussion sessions. These interventions drastically minimise the participant biases and moderator expectation which sometimes characterises FGDs (Denzin & Lincoln, 2011; Tracy, 2013).

Data analysis refers to a process which entails an effort to formally identify themes and to construct ideas as they are suggested by the data and an attempt to demonstrate support for these themes and ideas. Brockopp and Hastings-Tolsma (1995) suggest that the common

steps in the process of data analysis in qualitative research include the identification of themes, verifying the selected themes through reflection on the data and discussion, categorizing the themes and recording support data for the categories. In line with these, all the responses from the interviews were transcribed and typewritten using a word processing program. The researcher analysed and examined the responses noting similarities and differences emerging from the field study. The second step was to identify specific topics or themes that are arising in the narratives.

In the course of analysis, direct quotations and translations were used where necessary to tell from the direct expressions of respondents as shown from the data collection. In all, the data analysis was both reflexive and iterative and was conducted in three clear phases to ensure in-depth analysis. The initial phase of this data analysis was during the fieldwork. All audio-recorded responses from the semi-structured interviews and FGDs were severally played daily to remain connected to the emerging themes. Consistent with the position of Tracy (2013), revisiting data is significant in multiple ways as it allows for prudent refocusing of the researcher's attention on key insights emerging from the study. Through this process, ambiguities were minimized, clarities were ensured and omissions in interviews were corrected in subsequent semi-structured interviews and FGDs.

Continuous play of recordings allowed for easy identification of emerging themes at the initial phase of the analysis and eventually shaped the final analysis thematically. The second phase of the analysis witnessed the transcription of recordings from the semi-structured interviews and FGDs from audio into text format for easy usage. In doing so, two transcribers were assigned to this role after all the necessary confidentiality provisions were adhered to. Dominant themes emerging from the transcribed data under each

objective due to the constant reflexing and iteration served as a guide for data analysis after constant engagement and critical scrutiny of the transcribed data. A two-step coding approach was employed for the data. First and foremost, the transcripts from the interviews were coded based on the research questions and numbers R1, R2 and R3 for easy reference and identification in the analysis phase consistent with the three underpinning research questions.

Step two of the coding was developed from the main emerging themes as identified from the initial phase of the analysis. Coding was done until the point of saturation was realised from an extensive interface with the data. The last stage of the data analysis significantly utilized the thematic framework, emersion and familiarization and indexing of transcribed data based on the emerging themes as well as abstraction, synthesising and interpretation in line with the main research questions. As observed by Tracy (2013), addressing social concerns and problems in the face of research requires data to be gathered systematically, organized coherently, interpreted succinctly, analysed objectively and communicated in a friendly manner to address prevailing concerns. The thematic expressions and taxonomy approach ensured that consistency with existing studies was easily identified, contrary findings with earlier research revealed and consequent interpretations made to engender objective analysis of the core issues under investigation.

Computer-aided Analysis and Manual Analysis: The Approach of the Study

Contemporary qualitative research analysis continues to benefit from modern technological approaches through applications and software which have both advantages and disadvantages based on the expertise of the researcher. Even though the researcher has gathered some knowledge and expertise in the use of some computer-based qualitative

tools, this study employed none of such software in the analysis of the research data. The structured nature of such software such as Nvivo presents some difficulties in dealing with unstructured data as gathered in this study. The need for data input clerks and the time involved in the use of such tools presented some constraints, hence the application of other approaches. Comparing the inherent advantages, disadvantages and the time and cost involved in the application of software in the analysis, the study resorted to the use of a manual analysis approach.

3.5 Ethical considerations

Considering the relevance of ethics and the critical position it occupies, studies such as this need to follow strict ethical clearance throughout the study (Denzin & Lincoln, 2011; Hinson & Mahmoud, 2011). The human interface throughout the data collection phase and the possibility of accessing sensitive information makes it essential for ethical clearance standards to be respectful in all the processes. Moreover, the risk of sensitive information spilling out to unauthorised persons and agents makes it important to institute ethical standards at every stage of the project cycle. The researcher committed to ethical conduct underpinning all social sciences and academic research. Ethical issues involving language and its barrier, informed consent, inclusion and exclusion justification, voluntary participation and access were all dealt with in a manner that did not compromise ethical considerations.

Therefore, the study utilised ethical clearance from the SEED at the University of Manchester to abide by all the necessary ethical considerations stipulated by the ethical clearance procedure in the school. Specifically, the University of Manchester's Research Risk and Ethics Committee (UREC) through the School of Environment Education and

Development Ethics Advisory Group (SEAG) granted the necessary ethical clearance for this study to be conducted in the agreed manner.

Confidentiality and Anonymity

Confidentiality and anonymity are critical in all facets of research as it safeguards the validity of the research findings (Cresswell, 2003). Confidentiality and anonymity clauses were strictly adhered to during the field work to insulate respondents and participants from unnecessary exposure and hazards. The study exhibited due care and safety of all respondents by upholding the anonymity clause inherent in this study. The respondents who expressed their willingness to openly disclose their personal information such as name, age, and sex among others did so under the condition that they are not disturbed by the usage of such information. The study, however, declined the use of such personal details in the data analysis stage and every portion of the study.

Informed Consent

Informed consent by all participants remains a critical part of the ethical clearance by the University of Manchester and a key part of qualitative research. Consequently, all respondents for the semi-structured interviews as well as the participants for the FGDs provided their consent after the extensive background information on the study was provided. This means that all 53 respondents provided their informed consent including the participants for the 2 FGDs. This provides the necessary assurance to all participants that participation is borne out of the respondent's will and not mandatory, hence, the right to withdraw at any stage of the study process was permissible without any form of prior notice (Creswell, 2012). Respondents willingly chose the questions to respond to and the ones to exempt themselves based on the individual respondent's right of informed consent.

3.6 Justification of the Study and its Relevance to the Field of Development Policy and Management

Development policy as a field is concerned with development issues and how policy formulation and implementation could help shape the solution process. How best a policy is formulated and implemented determines the kind of support it elicits from all stakeholders and how the policy will be able to live up to its core mandate. Therefore, if a policy has the requisite institutional and structural arrangement to champion the policy at all levels, there is the greatest tendency that all actors will play an active role in the implementation process. Also, the involvement of beneficiaries at all levels of the policy process propels a smooth formulation and implementation process. This study is relevant to the field of development policy in two clear ways: Thus, both in theory and in practice. In terms of theory, the study contributes to the existing literature on integrated governance theory and environmental mainstreaming in developing countries. Specifically, the study fills a gap in climate change policy governance as most of the related studies look at climate change mainstreaming in terms of either adaptation or mitigation and not the two at a time and in a decentralized institution like the District Assembly. In terms of practice, the study illuminates and highlights the need for the policymakers, professionals and other actors within the climate change mainstreaming fraternity to beef up their game in less developed local areas. This is exemplified in the use of a comprehensive and holistic governance approach where stakeholders from the public, private, and third sectors and the community collaborate towards governing climate change policies in Ghana's cocoa sector.

The research, therefore, has a deep foundation in the field of development study and management as the results would be relevant to public administrators, policy makers,

private sector players, NGOs sector actors, the general public and other people in authority on best practices for facing climate change in Ghana's cocoa sector. Moreover, the findings from the study offer a deeper understanding of the role of collaborative and integrated governance systems in shaping the attitudes of stakeholders in governing climate change policies from a developing country's perspective. The study further throws more light on the concept of policy governance; its fundamental construct, implementation, challenges and the benefits of sustaining local livelihoods. This study also has implications for researchers, as it promotes a better understanding of the integrated governance approach in dealing with climate change in Ghana's cocoa sector and the nuances inherent in stakeholder integration which is critical for sustainable development and green governance in contemporary studies.

3.7 Scope and Limitations of the Study

In terms of space and geography, the study is conducted in the Northwest of Ghana's cocoa belt. Specifically, the Berekum Cocoa District which spans more than three local government districts within the Bono Region of Ghana was used as the study area. The institutional scope entails the cocoa District selected, local Government Assemblies within the area, the selected Assembly members, the various interest groups, selected private sector players, NGOs, media houses, and relevant civil society organizations (CSOs) in the District among other actors were selected purposively. This shows that a multiple case study approach was employed with key respondents drawn from relevant MDAs, private enterprises, third-sector players and community-based actors. The Local Government Act of 1993, Act 462, the Ghana Shared Growth Development Agenda the National Climate Change Policy of 2013, the National Climate Change Adaptation Strategy of 2012, and the

District Assembly's Development Agenda of the selected assemblies among other related legal and policy frameworks were subjected to rigorous analysis and review.

Notwithstanding, some limitations which are very common to qualitative studies were present, however, the study was generally positive. The limitations of the study emanated from its scope and methodology. In terms of scope, the study used a case study approach, which takes, into account only one cocoa District to generate findings that were generalized to the many other Districts in Ghana and other decentralized institutions in developed countries. To an extent, this may not be a true reflection of other situations in several other Districts that may not be consciously studied. The study was constrained as public servants' conduct demands workers to uphold the confidentiality clause and the oath of secrecy. The idea is that some interviewees have the potential of withholding information such as financing climate change interventions among others from the researcher as well as how integrated governance architecture plays out in the cocoa sector.

In the presence of all these challenges, this study maintains strong reliability and validity by documenting the exact information gathered from respondents without favouring distasteful findings. In terms of methodology, the study used a qualitative research paradigm. Even though the study devised the right instrument to solicit responses with extensive cross-examination of responses given by informants, not many people can be sampled for data collection. In this regard, the limited scope of this thesis, time limitation, and geographical distance of the case study area among other limitations was observed. Despite these few challenges, the study was conducted in a standard way as pertains to all Social Sciences research processes and so the conclusions and findings are highly reliable

to the extent that several data sources were resorted to drawing useful conclusions and recommendations.

Juxtaposing such cross-examined responses to the literature; the researcher made useful inferences and conclusions for further research and enhanced the use of the study findings in standard academic research. Triangulations were rigorously pursued to identify commonalities in data, and deviations from the ideals and to ensure trustworthiness in the study findings. This enhances the acceptability and reliability of the research findings and the contribution to knowledge made strongly.

3.8 Conclusion

This session of the thesis typically examined and provided the epistemological and methodological space within which the study can be situated. It presents and reflects the main research methodology underpinning the study. The chapter starts with a chapter introduction followed by the research paradigms within which the study is located. The chapter clarifies the main debates inherent in the interpretivist paradigm employed for this study and further justifies the choice of the paradigm. The research approach adopted for the study is also highlighted in this chapter. In doing so, the qualitative research approach is explained and the rationale for choosing that approach is equally stipulated. More so, the case study research technique, sampling technique used and sample size for the study is also captured.

The chapter also presents the breakdown of selected interviewees sampled before fieldwork, data sources, research instrumentation and data analysis. Considering the ethical implications of conducting a study such as this, the study presents the ethical considerations

instituted for the study as well as the justification for conducting the study, its relevance to the field of Development Policy and Management and the scope and limitations inherent. Moreover, the chapter has adequately presented the computer-aided analysis and manual analysis and how it featured in this study. The confidentiality, anonymity and informed consent approaches and how it plays out in this study and their relations with participants have been captured in this chapter.

The next chapter (Chapter 4) captures the contextual realities of Ghana's cocoa sector and the historical antecedent characterising the sector.

CHAPTER FOUR

CONTEXTUAL REALITIES OF GHANA'S COCOA SECTOR

4.0 Introduction

This chapter looks at the contextual realities of the nature of Ghana's cocoa sector. The chapter discusses Ghana's cocoa sector from a historical perspective, the contribution of the cocoa sector to the socio-economic development of Ghana, the production capacity of the entire cocoa sector, the impact of climate change on the cocoa sector, and the need for strong stakeholder collaboration in dealing with the climate change menace. The chapter also discusses the Cocoa Life Programme, features of the Ghanaian cocoa supply chain, peculiar challenges in cocoa production in Ghana, and pricing policy in Ghana.

4.1 Ghana's Cocoa Sector from a Historical Perspective

The historical perspective of Ghana's cocoa sector can be described as an eventful one. The country's association with cocoa started when it exported two bags only of beans in 1891. Subsequently, production increased at a phenomenal rate from those modest beginnings, until Ghana became the largest exporter of cocoa globally, less than 20 years later in 1910, and the country's cocoa output grew consistently until World War II (Williams, 2009). Ghana was not known for only producing large quantities of cocoa, it was, however, noted for very high quality and, till now, the country's cocoa exemplifies the global quality standard that some other cocoa-producing nations aspire to and, as a result, it commands a premium (Williams, 2009).

The country's cocoa production and export have been supervised by an influential marketing board since 1947, which at first was referred to as Cocoa Marketing Board and is currently, called the Ghana Cocoa Board (COCOBOD) (Laven, 2010). This board's mandate initially, as it is currently, has been to safeguard smallholder producers against the vagaries of global market prices, to guarantee the good quality of the cocoa produced and to manage the taxation of producers (Löwe, 2017). The cocoa sector in Ghana resumed its growth from the late 1950s onwards after a short time of deterioration and the country remained the world's largest cocoa producer for almost 70 years, as a result of agro-ecological conditions and sustained efforts by the COCOBOD (Löwe, 2017). Indicating that the board worked hard to put the country back where it left off as the world's leading cocoa producer.

Between 1964 and 1983, Ghana's cocoa production fell significantly, when total output fell from 591,000 to 159,000 tonnes (Löwe, 2017). Essentially, this drop was due to a decrease in the prices paid to cocoa producers by COCOBOD, which consecutively was caused by the board's ineffectiveness and the extraction of resources from the cocoa sector for political ends, as well as a decline in global market prices (Löwe, 2017). There is the perception that the COCOBOD at some point in time when Ghana was the world's largest producer became complacent. This caused the board to lose grip of the lead, which cost the country dearly. It has also been argued that the domestic circumstances that caused the recession in Ghana's cocoa sector took place against an international background of escalating supply of cocoa from new producers such as Malaysia and Indonesia and increased production in Brazil and Côte d'Ivoire (Amanor, 2005; Kolavalli & Vigneri, 2011).

Moreover, the country lost several of its cheap labour supply from Côte d'Ivoire and Burkina Faso by the early 1970s. As migrant farmers were unwilling to work in the old cocoa-producing areas that had become less productive, they were attracted to the neighbouring Ivorian regions where these migrant farmers could have access to farmlands on favourable terms (Amanor, 2005; Kolavalli & Vigneri, 2011). Ghana's recovery and second expansion phases were from 1983-2008. The country's cocoa sector turnaround began with the implementation of the Economic Recovery Programme (ERP) in 1983, which included a programme that especially sought to revive the sector (the Cocoa Rehabilitation Project). Policy changes included increasing the farm gate prices paid to the farmers relative to those paid in neighbouring states, hence, reducing the incentive to smuggle, and devaluing the cedi, consequently, reducing the level of implicit taxation of farmers (Vigneri & Santos, 2008; Kolavalli & Vigneri, 2011).

The programme also entailed improved use of technological inputs, including fertilisers, chemicals for controlling pests and diseases and the introduction of hybrid cocoa (Vigneri, 2008; Amanor et al., 2020). Cocoa trees infected with swollen shoot virus were removed and new ones were planted as part of the Cocoa Rehabilitation Project. Accordingly, the farmers were compensated for this exercise. The exercise resulted in substantial rehabilitation, with several farms planting higher-yielding cocoa tree varieties developed by the Cocoa Research Institute of Ghana. By 1995/96, Ghana's cocoa production rebounded to 400,000 tons and productivity increased from 210 to 404 kilograms per hectare. In 1992, another significant reform took place when COCOBOD shifted responsibility from domestic cocoa procurement to six privately licensed companies that were commonly referred to as licensed buying companies or LBCs.

As a result, the board reduced its personnel by 90 per cent between 1992 and 1995 (Kolavalli & Vigneri, 2011; Laven & Boomsma, 2012). From another perspective, there is the indication that the sector's challenges over the years have been observed because incomes generated by cocoa production were not reinvested in the sector, or more broadly, even the country's economy significantly. Farm gate cocoa prices declined to such a level that by 1980 only 21% of the free-on-board (FOB) price was received by farmers, which effectually subjected producers to a tax rate of 79% (Kolavalli & Vigneri, 2011). Responding to this, the cocoa farmers expectedly decreased their output and where possible they smuggled their beans to neighbouring Côte d'Ivoire (Kolavalli & Vigneri, 2011). Due to the depressed costs associated with starting a cocoa farm, though there was a continuous supply of cocoa by the producers, they did not continue pest control measures, they did not apply the required amount of fertiliser and shifted their labour to other, more lucrative, crops (Williams, 2009).

Eventually, because the farmers did not replace their aged cocoa trees with younger ones, national production levels also declined (Löwe, 2017). Serious measures were introduced to strengthen the sector as part of the World Bank-supported Economic Recovery Programme (Ghana's first structural adjustment programme), only when the economic consequences of the near-collapse of cocoa production in the early 1980s began to be felt (Löwe, 2017). In subsequent years, growth in cocoa production became more pronounced in Ghana from 2001. This was perhaps driven by a combination of record-high world prices, increased share being passed onto farmers, and a set of interventions rolled out by the COCOBOD to improve farming practices: Mass spraying programmes and high-tech

subsidy packages to promote the adoption of higher and more frequent applications of fertiliser (Vigneri & Santos, 2008).

There is also the indication that during this period, the influx of cocoa smuggled from Côte d'Ivoire which was projected between 120,000 and 150,000 thousand tons in 2003/4 into the country may have added to the growth (Brooks, Croppenstedt & Aggrey-Fynn, 2007). This also suggested that the narrative changed from Ghanaian farmers smuggling cocoa to Côte d'Ivoire, to farmers in Côte d'Ivoire smuggling cocoa to Ghana. A situation that does not help the sector of either country. In recent years, the regular adoption and implementation of current technologies have contributed to recovery since 2012 through increases in yields, while the expansion of output was comparatively driven by an escalation in the land area under cultivation. These advancements were made possible by COCOBOD through price increases and the improved services they provided.

Chemical fertilisers, hybrid cocoa trees and greater control measures for pests and diseases were some of the technologies adopted. In 1991, farmers who applied fertilizer were less than 10%, while in 2003, 50% of farmers applied, and trees that were of high-yielding varieties were only 10% in the 1980s, compared to 57% in 2002 (Kolavalli & Vigneri, 2011). The mass spraying programme introduced by COCOBOD in 2001 also aided in countering diseases and pests. However, there have been some inadequacies in intensification, and much needs to be done for yields to catch up with, for instance, those in Côte d'Ivoire (Löwe, 2017). Currently, even though some problems remain in the sector, Ghana has a vibrant cocoa sector, producing the world's best cocoa while coming second only to Côte d'Ivoire in terms of quantity. While Ghana produced 0.84 million MT in 2015/16, Côte d'Ivoire produced almost twice as much cocoa, approximately 1.7 million

MT in 2015/16 (Statistica, 2016). Ghana's cocoa sector still constitutes 3.4% of Ghana's GDP and 20% of total export receipts, though, not as significant as it once was, in terms of either tax revenue or total contribution to the economy (COCOBOD, 2015).

4.2 Contribution of the Cocoa Sector to the Socio-Economic Development of Ghana

In Ghana, the agricultural sector in general contributes about 20 per cent to the country's Gross Domestic Product (GDP), while the sector employs 42 per cent of the economically active population (GSS, 2016). Out of the four major sub-sectors, thus, crops, animals, fisheries, and forestry, the crop sub-sector is the most significant, economically (Yaro et al., 2017). The cocoa sector alone contributes significantly to the socioeconomic development of Ghana, principally in terms of its contributions to GDP, employment and foreign exchange (Teye & Nikoi, 2021). The sector is still the most essential commercial crop, contributing an average of 2% to GDP in the last decade, even though its contribution to GDP has declined in the last decade (Teye & Nikoi, 2021). There is no doubt that cocoa, for several years has been very significant to the economy of Ghana.

It has further been emphasised that the cocoa sector remains a significant source of exchange for Ghana (Deans et al., 2018). Ghana's foreign earnings that came from the export of cocoa was 65% in the 1970s. The country is currently, the second leading exporter of cocoa to Europe, the United States, and Asia (Glavee-Geo et al., 2020; Monastyrnaya et al., 2016). Cocoa currently contributes 80% of agricultural export earnings (ISSER, 2017). It was reported that in the year 2000, the total value of export increased from GH¢ 878.86

million to GH¢ 87,432.98 million in 2019 (Teye & Nikoi, 2021). The larger quantity of cocoa foreign exchange comes from the export of cocoa beans (Teye & Nikoi, 2021).

Moreover, in 2010, the value of raw cocoa beans exported went up from GH¢1,211 million to GH¢10,147 million in 2015. Cocoa beans and cocoa products export contribute to over 30 per cent of the value of merchandise export (Ghana Investment Promotion Centre [GIPC], 2017). It is approximated that cocoa contributes to the livelihood of six million individuals who are comprehensively dependent on the sector, including over 800,000 mostly rural households who derive 67% or more of their household income (ISSER, 2014; Asamoah & Owusu-Ansah, 2017). Exports of the cash crop are subjected to taxes which offers the government revenue from the sector, while the tax rate on exports of cocoa beans is fixed annually by the government. Cocoa export tax alone, currently, provides approximately 5% of government revenue (Teye & Nikoi, 2021).

Moreover, the Ghana Statistical Service (2014) put out that about 794,129 households are involved in cocoa production. There is no doubt that a considerable share of Ghana's agricultural productivity gains has been generated by export crops since 2001, with cocoa accounting for 10% of overall crop and livestock production values (World Bank, 2007a). The cash crop contributed to 28% of agricultural growth in 2006, up from 19% in 2001 (Kolavalli & Vigneri, 2011). Economic growth has been solid simultaneously, which has been around over 5% since 2001 and reaching 6% from 2005 to 2006 (Kolavalli & Vigneri, 2011). Together with the influence of greater access to health services, education, and land ownership, this growth rate has contributed to the approximate splitting of the national poverty rate since the beginning of the 1990s, from 51.7% in 1991/92 to 28.5% in 2005/2006 (Breisinger et al., 2008; World Bank, 2008).

In 2013, the export of cocoa contributed about 32% of the overall export earnings (ISSER, 2014). The sector also contributes to the educational development of the country as cocoa farmers' wards who are brilliant and in second-cycle schools are granted scholarships by the COCOBOD (Obuobisa-Darko, 2015). There have been several infrastructural developments in addition to the abovementioned contributions. These include the provision of roads in the cocoa growing areas and hospitals from proceeds obtained from the cocoa sector (Obuobisa-Darko, 2015). Cumulative figures suggest that through the 1990s in the Southern Forest Belt, where cocoa is mainly produced, cocoa-farming households, along with those engaged in mining or timber (the other largely export-oriented activities) and other commercial activities, realised improvements in their living conditions compared with food crop farmers (McKay & Coulombe, 2003).

There has also been an observable poverty reduction among cocoa farmers. Household surveys pointed out that poverty among cocoa-producing households fell to 23.9% in 2005, down from 60.1% in the early 1990s (World Bank, 2007b). In economy-wide growth, the role of cocoa has been phenomenal. While production increased from 395,000 MT in 2000 to 740,000 MT in 2005, cocoa producer prices also increased. In 2000-2004, the share of cocoa in GDP rose from 4.9% to 8.1% in 2005/2006. Again, cocoa accounted for 22.6% of AgGDP together with forestry and fishery or 28.5% without forestry and fishery. Also, without forestry and fishery, cocoa contributed 28% to agric growth. Moreover, cocoa exports constituted 28% of foreign exchange earnings, 57% of overall agricultural exports, and 87% of forestry and fishery are left out (Breisinger, Diao & Kolavalli, 2007).

There are several indications that cocoa can continue to play a significant role in Ghana's economic growth toward Middle-Income Country (MIC) status. Firstly, this is because

international cocoa prices are likely to remain high (World Bank, 2007). Secondly, cocoa yields in the country are well below international averages, signifying potential for productivity-driven growth (Food and Agricultural Organization of the United Nations [FAO], 2005; International Cocoa Organisation [ICCO], 2007). Thirdly, because new scientific confirmation emphasises health benefits for cocoa consumers, potentially further boosting demand (ICCO, 2007). Finally, due to the fact, the Ghana government is expected to continually offer its support to the cocoa sector, and there are indications that the partial liberalisation of Licensed Buying Companies (LBCs) will continue to contribute to output and productivity growth (Varangis & Schreiber, 2001).

4.3 The Production Capacity of the Entire Cocoa Sector

Despite the technical changes that have occurred in the production of cocoa, Ghana still needs to close a large productivity gap to remain competitive. The gap between observed and attainable yields is 50-80%. This is dependent on the production practices adopted by farmers, for instance, thin shading and the volume of fertiliser applied (Gockowski, 2007). In the 1980s, a survey revealed, however, that Ghana was the lowest-cost producer in the world (Bloomfield & Lass, 1992). Compared to those of its leading competitors, Côte d'Ivoire and Indonesia, Ghana's yields are found to be low (Kolavalli & Vigneri, 2011). Moreover, there has not been any clear indication of which technologies anticipated to increase productivity which will be attractive to farmers. Farmers may not, for instance, have much incentive to apply fertilisers to hybrid trees, since the proceeds from doing so may not be higher than those achieved on traditional varieties (Edwin & Masters, 2003).

The application of fertiliser to young cocoa trees as indicated by Gockowski and Sonwa (2007), increased yields as much as threefold on experimental farms. One assessment conducted revealed that the high dropout rate from the Cocoa Abrabopa Association (CAA) programme may result from high variability in the expected returns from fertiliser applications (Opoku et al., 2009). One threat to the sustainability of Ghana's cocoa production capacity is the low level of tree replanting. Instead of replacing old and diseased cocoa trees, farmers are observed to find it more economical to expand their farms (Ruf & Burger, 2001; Vigneri, 2005). This is because it takes twice as long to clear an old farm as it does to clear new forest land (Masdar Ltd., 1998). In addition, farmers are found to perceive the extension of land on which cocoa is planted as both an investment and the channel to gain land ownership (Amanor, 2010).

Despite some issues surrounding production capacity, major strides have been achieved in the sector. Production was stable from 2001-2005 due to technology improvements and continued refinement of policies and procedures by the COCOBOD yielded results (Kolavalli & Vigneri, 2011). Ghana had a peak production volume above 600,000 tonnes in 2006, a level which had been difficult to attain over the years (Usang & Oluwasegun, 2021). From 2006 to 2010, the country realised a sudden drop in cocoa production which could be attributed to the outbreak of disease over a large area of cocoa growing areas (Usang & Oluwasegun, 2021). In 2011, production went from below 300,000 tonnes per year to 700,000 tonnes. Production capacity levels were between 500-700,000 tonnes during this period. The country's production levels have hovered in a range above 500,000 tonnes, going up above 800,000 tonnes in 2018 (Usang & Oluwasegun, 2021).

Originally, in Ghana, there were six cocoa-growing regions, thus, Ashanti, Brong-Ahafo, Central, Eastern, Western, and Volta regions (COCOBOD, 2004). The Western region has been the main cocoa-producing region, which produces more than 50% of total annual production (COCOBOD, 2004). COCOBOD and Government of Ghana Task Force surveys projected productivity per hectare per annum to be less than 250 kg and between 200 and 290 kg respectively (COCOBOD, 1998). The second cocoa-producing region is the Eastern region and the first point of cocoa introduction was in 1879 (Okali, 1983). The region accounts for about 19% of the total cocoa production in Ghana (Yahaya, Karli & Gül, 2015).

Ghana's consistent cocoa production is a result of the continuous activity of COCOBOD. This has made cocoa a major source of foreign exchange for Ghana. COCOBOD strictly ensure that good quality is observed at all levels making Ghanaian cocoa the most desired in the world. Investment in cocoa research has been done to sustain high levels of production. Beginner and trainer education programmes in the cocoa planting sphere are readily available in Ghana, compared to other cocoa-producing countries in Africa. The cultivation of cocoa is peculiar, and it needs government support to create an enabling environment for farmers (Usang & Oluwasegun, 2021).

4.4 Effects of Climate Change on the Cocoa Sector

Agriculture is a diverse economic sector that produces food, fibre, material and energy commodities. In most regions, agricultural productivity is directly dependent on weather and climate conditions more so than any other major economic sector. Put succinctly, Cumhur and Malcolm (2008) indicated that one significant factor in agricultural

productivity is climate. The release of 'greenhouse' gases into the atmosphere results in climate change. These gases accumulate in the atmosphere and bring about global warming. The associated factors which cause alterations in global climates such as temperature, rainfall and soil moisture, block the transmission of heat levels (Anim-Kwapong & Frimpong, 2008). When it comes to cocoa production, the impact of climate change cannot be simplified. In several areas in rural Africa, climate change extremely affects sectors such as agriculture, water, energy and forestry (Schlenker & Lobell, 2010).

Among the most critical concerns of a lot of developing economies is undoubtedly, vulnerability and adaptation to the adverse effects of climate change. An alarming econometric analysis indicates that over 90% of cocoa farmers have already been exposed to the adverse impacts of climate change, with severe implications for cocoa production and rural livelihoods (Afriyie-Kraft et al., 2020). Human influence has likely been the dominant cause of observed warming since the mid-20th century. Changes in temperature and precipitation associated with continued emissions of greenhouse gases will bring changes in land suitability and crop yields (IPCC, 2014). Manifestations of the effects of climate change on cocoa farms are observable in the amplified prevalence of pests and diseases, wilting cocoa leaves, and high cocoa seedling mortality, which result in low yields (Asante et al., 2017).

Therefore, for agriculture to become ecologically more sustainable, it must change to meet the rising demand and contribute more effectively to the reduction of poverty and malnutrition. To lessen the negative effect of climate change, one of the policy options identified is an adaptation (Adger et al., 2003; Kurukulasuriya & Mendelsohn, 2006). It involves long-term initiatives and measures to diminish the susceptibility of natural and

human systems to actual or anticipated climate change effects (Ahenkan & Boon, 2010). Research carried out in this area indicates that without adaptation, climate change is largely detrimental to the agricultural sector. Nevertheless, with adaptation, susceptibility can essentially be reduced (Easterling et al., 1993; Rosenzweig & Parry, 1994; Mendelsohn, 1998). Investigations concerning vulnerability have thus, shifted the focus from the estimation of effects to the appreciation of farm-level adaptation and decision-making. It is being understood generally that while climate change is a global phenomenon, adaptation is principally site-specific (Metternicht, Sabelli & Spensley, 2014).

In Ghana, several factors have been linked to the decline in cocoa production. One such factor was indicated to be the poor management of the COCOBOD (Jaeger, 1999). Nevertheless, another factor that has received a lot of concern from many stakeholders is climate change. In several developing states, the influences of climate change on agriculture have been well explored (Johns, 1999; Schlenker & Lobell, 2010; Kotir, 2011; Farook & Kannan, 2015). Observations made in these studies indicated that in developing states, crop yield is more susceptible to climate change. The effect of climate change on agriculture may not be the same in every country. In Ghana, the results from some investigations have highlighted the alarming effect of climate change on cocoa production (Wiah & Twumasi-Ankrah, 2017).

It has widely been observed that cocoa is extremely vulnerable to drought and the pattern of cropping of cocoa is associated with rainfall distribution. The total rainfall yearly in the cocoa-growing regions in Ghana is less than 2000mm. The distribution of rainfall patterns is bi-modal from April to July and September to November. From July to August, there is a short dry period during which the relative humidity is still high with overcast weather

conditions. The main dry season in Ghana is from November to February to March. Cocoa seedling mortality is high during the establishment phase within the four to six months of dry weather which results in soil water deficit since irrigation is not part of the farming system in the country. In young plants, the presence of the short dry season, in case it is sufficiently severe during main crop pod filling can distress bean size. In adult plantings, water deficits bring about lower yields and an increase in the level of mirid (capsid) damage (Anim-Kwapong & Frimpong, 2008).

Moreover, it is well-known that cocoa is very much sensitive to changes in climate; thus, from hours of sun to precipitation and application of water, conditions of soil and principally to temperature due to effects on evapotranspiration. Climate change could also modify rates and stages of growth of cocoa pests and pathogens, alter host resistance and bring about changes in the physiology of host-pathogen/pests interaction. Shifts in the geographical distribution of host and pathogen/pests, altered crop yields and crop loss are the most probable consequences which will in turn influence socio-economic variables such as farm income, livelihood and farm-level decision making (Anim-Kwapong & Frimpong, 2008; Ministry of Science, Technology and Innovation [MESTI], 2013).

The production of cocoa is effective in nations in a belt between 10°N and 10°S of the Equator, where the climate is suitable for growing cocoa trees. The lower story of the evergreen rainforest is the natural habitat of the cocoa tree, and climatic factors, mainly temperature and rainfall, are significant in encouraging optimum development. The crop responds well to comparatively high temperatures, with a maximum annual average of 30-32°C and a minimum average of 18-21°C (Anon, 2016; Wiah & Twumasi-Ankrah, 2017). From year to year, disparities in the yield of cocoa trees are affected more by rainfall than

by any other climatic factor. Hence, rainfall should be well distributed and abundant through the year (Anon, 2016).

In an assessment undertaken by Anim-Kwapong and Frimpong (2008), they projected the influence of climate changes on the supply of dry cocoa beans. Their investigation aimed at finding out the impact of changes in total yearly rainfall, total rainfall in the two driest months and sunshine duration and observed that over 60% of the variation in dry cocoa beans could be described by the combination of the preceding total rainfall yearly, total rainfall in the two driest months and the total sunshine duration. Similarly, it was reported by MESTI (2013) that the cocoa sector is predisposed to susceptibility in the face of climate change. Some estimations suggest falling production from 2020 to 2080, and some even suggest that the cocoa sector will not survive as a result of climate change (MESTI, 2013).

In another investigation carried out by Hutchins et al. (2015) in Ghana, cocoa farmers noted that climate changes were adversely impacting their cocoa production. Some of the farmers interviewed by the researchers indicated that the weather led to declined yields of cocoa. One main challenge the farmers mentioned was that some aspects of their cocoa growing were being affected by the unpredictability of rains and weather. Some three out of thirteen farmers used in the investigation stated that because of the unpredictability of rains their plants are dying. One of these three farmers claimed that because of the weather, 70-80% of his 2,000 seedlings died. Another farmer indicated that because she did not know when the rains were coming, it was challenging to know when to spray for pests and diseases. Some key informants and farmers revealed that in previous decades, the rains were very regular and alerted the farmers as to when to begin planting. The most important climatic

factors affecting cocoa production, as depicted by Oyekale, Bolaji and Olowa (2009) are rainfall, temperature and sunshine.

Climate change is indeed altering the stages of rates of cocoa pests and pathogens development and modifying cocoa's resistance to such threats (Oyekale, Bolaji & Olowa, 2009). There are a lot of pests and diseases that can distress cocoa, which is something that many cocoa producers are actively attempting to combat (Anim-Kwapong & Frimpong, 2008). Throughout several investigations to find out how farmers are dealing with these challenges, they mention spraying as a part of their daily pre-harvest routine and inspecting their farms for pests and diseases. The changes in climate, including humidity reductions and changes in precipitation, have the potential to intensify the occurrences of pests and diseases as well as change the types of pests and diseases that find the Ghanaian cocoa farm as a favourable environment (Anim-Kwapong & Frimpong, 2008; Danso-Abbeam, Aidoo, Agyemang & Ohene-Yankyera, 2012).

As a result of changes in climate, the main disease that is affecting cocoa production in Ghana is the cocoa swollen shoot virus (CSSV). An assessment revealed that farmers know more about the pests that affect their production possibly because they attributed most of their unsellable cocoa to pests. The capsid the most common pest farmers mention, which is followed by the cocoa shield bug. Capsids are sucking insects that feed on cocoa and make it challenging to establish. It is observed that more than 13% of climatic factor failures result in capsid infestations (Oyekale, Bolaji & Olowa, 2009). Also, the cocoa shield bug causes premature ripening of the cocoa by feeding on the pod and could be found on the upper parts of the tree (Dormon, van Huis, & Leeuwis, 2007).

The COCOBOD in an attempt to increase yield started growing 50 million cocoa seedlings in 2015 for three years to provide to cocoa farmers and is providing free fertiliser. Also, there is a call for government policies to curb pollution and tighter regulations to prevent deforestation which is found to cause climate change. Investigations have further revealed that one of the most common adaptations and mitigation strategies promoted and observed, as being implemented by farmers is agroforestry. Moreover, shade trees can reduce the number of pesticides needed, since they increase the health of the soil, and can create an extra income from the selling of timber (Hutchins et al., 2015).

4.4.1 Factors Influencing Climate Change on Cocoa Production

Climate change, according to Intergovernmental Panel Climate Change (IPCC) usage refers to a change in the state of the climate that can be identified (e.g. using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. It refers to any change in climate over time, whether due to natural variability or as a result of human activity (IPCC, 2007). Human influence has been detected in the warming of the atmosphere and the ocean, in changes in the global water cycle, in reductions in snow and ice, in global mean sea level rise, and changes in some climate extremes. According to the IPCC report in 2014, it is extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century. Agriculture (as human activities) in the humid tropics is both highly vulnerable to climate change and contributes to it since the related clearing of rainforests releases high amounts of greenhouse gases (FAO, 2011).

Studies by the IPCC in 2007 revealed that deforestation and conversion of forests to agriculture contribute 17.4% of global greenhouse gas emissions. Forests are the largest

terrestrial store of carbon and deforestation is the third-largest source of greenhouse gas emissions after coal and oil. Deforestation causes 15% of global greenhouse gas emissions. Of these, carbon dioxide emissions represent up to one-third of total carbon dioxide emissions released because of human causes (FAO, 2010). Moreover, deforestation is the second largest anthropogenic (human-caused) source of carbon dioxide in the atmosphere, ranging between 6% and 17% (Van der Werf et al., 2009). International Cocoa Organization (ICCO) describe extreme weather to include weather phenomena that are at the extreme of the historical distribution, especially severe or unfavourable weather. It was noted that temperature and rainfall are important factors that impact optimum yield (ICCO, 2003).

4.5 The Need for Strong Stakeholder Collaboration in Dealing with the Climate Change Menace

Undeniably, there is a need for strong stakeholder collaboration in dealing with climate change challenges. Accordingly, the fundamental intention of the United Nations Framework Convention on Climate Change (UNFCCC) process was to reduce the source of climate change rather than adapt to the changes (Schipper, 2006). There is, however, an increasing shift from impacts/mitigation to vulnerability/adaptation. This is occurring particularly among the Non-Annex 1 nations and this is often reflected in climate change policies. A problem in developing an appropriate climate change policy is designing one that is “a socially and economically justifiable mix of mitigation, adaptation and development” (Klein et al., 2005). Deciding which direction to go requires strong stakeholder collaboration and consensus.

There is a continuous exploration of ways to address the myriads of climate concerns by researchers, policymakers, and stakeholders. The scientific uncertainties, the long-time frames for impacts to occur, and the global nature of the problem render climate change decision-making complicated (Tompkins & Adger, 2005). The uncertainties make it much more challenging to develop climate change policies, besides its cross-cutting nature (Dessai et al., 2004; Simms & Reid, 2005). Other issues which have affected the mainstreaming of climate change into development activities included lack of funding, lack of capacity, lack of communication and effective coordination of existing climate-related initiatives and increasing social stresses such as poverty and health care issues (Schneider, 2002; Waldman, 2005; Magrath, 2006; Roux et al., 2006; Michaelowa & Michaelowa, 2007; World Bank, 2008). Currently, policy systems are shifting towards recognising the contributions of a broader range of expertise by involving key stakeholders to deal with the aforementioned issues (Griffin, 1999).

One way to tackle the diverse and sometimes even conflicting interests is to set up dialogue processes that enable all interested parties to participate, including government, private sector and civil society representatives (Ellis et al., 2013). It is suggested that setting up dialogue processes that ensure that all interested parties participate, including government, private sector and civil society representatives is one way to tackle diversity and sometimes even conflicting interests (Ellis et al., 2013). Stakeholder collaboration or participation aids in reducing conflict and encourages consensus formation in the policy system to deal with the menace (Connick & Innes, 2001). This strategy will also help to detect policy gaps as well as the key actors and plays a significant role in enhancing accountability. The participation of stakeholders characteristically entails the adoption of participatory

processes to integrate various opinions and to ground decisions in relevant, feasible and implementable advice (Culyer & Lomas, 2006).

Stakeholder collaboration in climate change policymaking will ensure that climate information is available to appropriate users and that local needs are incorporated into climate policies. It is emphasised that local governments regularly depend on the central governments for financial resources, as well as for information on climate changes and relevant policy because most climate adaptation research and policy formulation often occur on a national scale (Westerhof & Juhola, 2010).

The location of Ghana on the African continent is one of the world's most complex climatic regions. It makes the country prone to tropical storms, and the influence of the Atlantic Ocean and the Sahel (Lawson, 2016). Increased temperatures, variability in rainfall, including unpredictable and extreme events, sea-level rise, and loss of carbon sinks are the direct manifestations of climate change in Ghana (Ministry of Science, Technology and Innovation [MESTI], 2013).

Numerous projections and models have revealed assumptions that vary, which generate uncertainty about the future scale and consequences of climate change (MESTI, 2013). However, what is constant are the clear signs of climate change that confirm Ghana's susceptibility (Ardey-Codjoe & Owusu, 2011; GoG, 2011). The climate scenarios for Ghana indicate clear signals of warming with an increase of 1°C over the past 40 years (1960-2000) (Lawson, 2016). It was projected that there will be an estimation of 0.6°C, 2°C and 3.9°C by 2020, 2050 and 2080, respectively (GoG, 2011). Rainfall was, however, expected to increase or decrease (Lawson, 2016). Additionally, an estimated 24Mt carbon

dioxide is what Ghana contributes to the global greenhouse emissions, which is found to be comparatively insignificant compared to the global average and emissions from other large developing countries (Lawson, 2016). Nevertheless, Ghana has the potential to grow over the coming years under business-as-usual development pathways (GoG, 2011).

For some years now, the Ghana government has comprehensively invested in pursuing climate change strategies. One of these strategies is being through the concept of Reduced Emissions from Deforestation and Degradation (REDD) managed by the Forestry Commission. This strategy was implemented as a fundamental factor of the international climate change agenda. Accordingly, REDD+ takes this concept a step further and aims at addressing a wider set of forest management issues through initiatives sponsored mainly by the World Bank and the United Nations (UN). In recent years, the government of Ghana completed the first phase of REDD+ Readiness by developing a national REDD+ strategy. Support was received to implement the REDD+ Readiness Preparation Proposal from the World Bank's Forest Carbon Partnership Facility.

Also, in partnership with the Forestry Commission, Olam and Rainforest Alliance have been working to build cocoa-producing areas in degraded lands in ecological corridors, helping cocoa trees become more resilient to moisture and temperature changes due to climate change through the "Climate Cocoa Partnership for REDD+ Preparation" project. This project is contributing to the country's National REDD+ platform by detecting REDD+ areas and preparing local farmers for REDD+ carbon finance options through their increased carbon stocks on their farms (Brasser, 2013). Moreover, COCOBOD and the Forestry Commission have also received approval from the World Bank recently for their Emissions Reduction Programme (ERP) proposal. The proposal focuses on the mosaic

landscape of protected forests. A lot of key informants have expressed their excitement about the collaboration between the Forestry Commission and COCOBOD as well as the fact that it will be a payment for the results-based programme (Hutchins et al., 2015).

Furthermore, in collaboration with UN Development Programme (UNDP) and UN Environment Programme, the Environmental Protection Agency (EPA) received funding from the Danish Ministry of Foreign Affairs to establish the National Climate Change Adaptation Strategy (2010-2020). Some key aspects highlighted in this strategy are REDD+ initiatives. In July 2014, the former president of Ghana, John Dramani Mahama announced the launch of the National Climate Change Policy which will define a pathway for a green economy by dealing with emerging environmental challenges. Three objectives are contained in Ghana's National Climate Change Policy Framework, thus: low carbon growth; effective climate adaptation; and social development. The Ghana government is currently exploring opportunities through collaborations with large organisations and small-scale farmers for new proceeds from carbon stocks in cocoa-producing areas. The government has also expressed its commitment to the United Nations Framework Convention on Climate Change (UNFCCC) (Hutchins et al., 2015).

Over the years, cocoa farmers have used short-term (coping) strategies and long-term (adaptation) strategies to offset the impacts of climate change on their production (Davies, 1993). In one current filed survey, Buxton (2020) investigated the climate change responses of 444 cocoa farmers in Ghana. Results from the survey indicated that farmers' coping strategies included those on crop, soil fertility and soil water management practices. From the investigation, it was observed that adaptation strategies by farmers included behavioural adjustments which included spraying, fertiliser application, weed control, and

pruning as well as institutional and technological adjustments which included change in variety and increased extension services.

Farmers who perceived that the climate had changed and had some consequence on their products were found to usually employ adaptation measures. The farmers' responses to climate change were influenced by differences among them in terms of personal managerial and entrepreneurial capacities and family circumstances. One main challenge was, however, to separate the adaptations in response to climate change from adaptations in response to other stimuli, such as government policy or market price changes that farmers face in the real world. The author indicated that examining adaptation strategies also provides significant information that the farmers need to increase their capacity to moderate potential damages and to take advantage of opportunities, if any, to survive in a changing climate.

Other research has also suggested that "Climate Compatible Development" (CCD) can offer improvement that could minimise the damage caused by the influences of climate, while it could as well maximise the numerous human development opportunities presented by a low-emission, more resilient future (Mitchell & Maxwell, 2010). CCD could provide, as argued by some authorities (Suckall, Stringer & Tompkins, 2015), opportunities to attain "triple wins", whereby climate change adaptation efforts, mitigation strategies and development go hand-in-hand. Moreover, in an effort to collaborate to deal with the climate change menace, a lot of NGOs, private sector corporations, and government agencies are promoting agroforestry. COCOBOD is noted to have trained their farmers in the benefits of permanent shade trees; they however, caution farmers on too much shade, since this can cause an increase in pest and disease infestation.

Accordingly, the board started the growing of shade trees (Hutchins et al., 2015). It was observed that in order to minimise evapotranspiration from trees and soil and slow down the tree metabolism which will increase the tree's production longevity, Cocoa Research Institute of Ghana (CRIG) was encouraging proper shade cover. Agroforestry is also mentioned to be good for the environment in general due to the fact that it increases Ghana's carbon stock (Anim-Kwapong & Frimpong, 2010). Since, cocoa trees need 70% shade, there is the need to plant permanent shade trees a year in advance of cocoa trees if a new farm is going to be started (Anim-Kwapong & Frimpong, 2010). Another argument is that 18 shade trees per hectare should be planted, but farmers may need to multiply and plant that number to have any effect (Hutchins et al., 2015).

4.6 Cocoa Life Programme

Cocoa Life Programme is a holistic programme that seeks to generate a sustainable cocoa supply by transforming the lives of farmers and communities at scale. The programme has the sole objective of ensuring that cocoa communities flourish through partnerships with key stakeholders. Concerning its commitment to this programme, three main principles incorporated are holistic and farmer-centric, committed to partnerships, and aligned with its sourcing (Mondelez International (MI) and Cocoa Life, 2013). Cocoa Life Programme supports communities in developing real solutions for community transformation through the creation of partnerships with communities, governments, national and international nongovernment organisations (NGOs) and supply chain partners. Cocoa Life Project was launched in November 2012, by MI with the objective of investing \$400 million USD by 2022 to empower at least 200,000 cocoa farmers and reach over one million community members in six key cocoa producing nations including Cote d'Ivoire, Ghana, Indonesia,

India, the Dominican Republic and Brazil (MI and Cocoa Life, 2013). The MI anticipated that the Project would link cocoa farming with community development. Under the Project, a variety of initiatives exist to support farmers in local communities, support the farmers to cultivate more resilient crops, and create real impact across cocoa communities (MI and Cocoa Life, 2013; MI, 2014).

Cocoa Life Programme relates the beginning and end of the cocoa supply chain as a build-up on the Cadbury Cocoa Partnership, which was founded in Ghana in 2008, to enable farmers to appreciate how their cocoa crop essentially contributes to the chocolate enjoyed over the world (MI Progress Report, 2015). Based on the above, MI realized that while these issues are complex and multifaceted and there are no quick fixes, Cocoa Life Programme can be effective in dealing with them if the organisation works with the cocoa communities and partners on a long-term basis, guided by a clear and distinctive approach, and underpinning values and principles. The Cocoa Life approach was thus, developed from this work in Ghana and insights from other activities cocoa-growing states, with certification schemes and from others in the cocoa industry (MI, 2013; 2014).

Cocoa Life programme in Ghana, aims at empowering the men, women and youth in cocoa communities to improve their livelihoods and lead their own development through entrepreneurship. There is also a component in the programme that focuses on empowering women in the cocoa sector, climate change reduction and protection of children in cocoa growing communities. Equally, the government of Ghana is working in partnership with donor organisations and NGOs to implement young cocoa farmers' programmes which aim to create employment opportunities for the youth in rural areas as well as sustain the future of the cocoa industry. The Youth in Cocoa Programme for example was established

by the COCOBOD in 2016, which resulted in the formation of many youth associations in cocoa-growing communities. Technical support and farming equipment have been provided to the beneficiaries to enable them to start cocoa farming. Similarly, a leading development-based NGO, Solidaridad, is behind the implementation the ‘Next Generation Youth in Cocoa Programme’ which is also empowering the youth to realise the opportunities in the cocoa industry (Mabe et al., 2020).

4.7 Features of the Ghanaian Cocoa Supply Chain

Globally, Ghana is the second largest cocoa producer with more than one million metric tons of cocoa beans produced in Ghana in the 2020/2021 crop season (COCOBOD, 2022). This quantity was produced by approximately one million cocoa producers, who were principally smallholders, being male and female farmers, owners, and sharecroppers, who also hire farm labour. The supply chain of Cocoa in Ghana goes through a complex production process that includes farmers, buyers, transportation and trading, collection, certification, storage processors and chocolatiers and distributors. The cocoa industry supply chain structure is broken into activities within Ghana and outside Ghana with interrelationships between actors and the principal factors that influence behaviour and drive decision-making in the sector.

Overall, the cocoa supply chain can be subdivided along four major product categories, based on the stage of processing. The categories are the following:

- Cocoa beans (raw, or minimally processed);
- Semi-finished cocoa products (cocoa paste/liquor, cocoa butter, cocoa powder);
- Couverture, or industrial chocolate;

- Finished chocolate confectionary products.

The cocoa sector generates employment and income for around one-third of the country's population (Laven, 2010). The country over the last decade has doubled its output considering the available statistics from COCOBOD. Cocoa output in Ghana, around 2003, was 500, 000 tonnes, and in 2011, a little over 1 million tonnes was officially recorded. Productivity levels are, however, still low. Between 50 and 65% of cocoa farmers in Ghana produce 400kg/ha. These are farmers who adopt low technology. With medium technology, between 20 and 40% of farmers produce 650 kg/ha. While those using high technology produce on average 1400 kg/ha (CRIG, 2010).

When it comes to the supply of large quantities of high-quality cocoa, Ghana's name comes first, for which on the world market, Cocoa Marketing Company (CMC) is rewarded with a premium price. To maintain the good quality of the crop, COCOBOD's Quality Control Company (QCC) does three inspections: Up-country store, take-over point; and at the point of export (Laven, 2010). In Ghana, the cocoa sector is partially liberalised. COCOBOD still has a monopoly on cocoa marketing and export through its subsidiary, the CMC (Laven & Boomsma, 2012).

Evacuation of cocoa carried out upstream, thus, from farmers to COCOBOD warehouses is privatised, but still coordinated by COCOBOD. The COCOBOD is the major shareholder of Ghana's largest LBC, and the Produce Buying Company (PBC). Most of the LBCs are local companies, of which one is owned by a farmer organisation (Kuapa Kokoo Ltd). Armajaro and Olam are two large LBCs that have parent companies in the UK and Singapore respectively. Transroyal and Fedco cocoa merchants, are owned by the same shareholder, transport company Global Haulage. There are 27 LBCs, currently, active

in Ghana (Ibid.). The COCOBOD pays farmers more than 70% of net Free on Board (FoB) price (in 2012, the rate was fixed at 76% of net FoB price, or GHc 205 per bag).

Annually, this producer-price is fixed, so that farmers know in advance of the harvest season what they will get, irrespective of the yield or world market price fluctuations. LBCs are therefore expected to respect the producer price conscientiously (Ibid.). Extension services over the last few decades have shifted from services provided by the Cocoa Services Division (CSD) (exclusive for cocoa farmers) to unified extension services provided by the Ministry of Food and Agriculture (MoFA). With a lot of farmers being underserved, the CSD was regarded to be too expensive, unified extension was, however, a poor solution. Attempts have been made currently, to put in place a system of joint extension referred to as Cocoa Extension Public-Private Partnership Ghana, where private and public partners work together exclusively for the provision of extension services to cocoa farmers.

The average age of cocoa farmers is more than 50 years. Just as cocoa trees are ageing, the farmers are also ageing. Most cocoa farmers are not formally organised as has been noticed in several agricultural subsectors in most developing countries. Farm-owners are routinely registered at the Ghanaian Cocoa Coffee Sheanut Farmers Association (GCCSFA); however, this association is not seen to be representing the interest of farmers. There are two essential farmer groups in addition to GCCSFA that function as farmer organisation: The Kuapa Kokoo Farmer Union (KKFU), with around 50,000 members, and Cocoa Abarabopa (CAA), with over 18,000 members. Under the supervision of the AgroEco-Louis Bolk Institute, there are also numerous smaller organic cocoa groups. Casually, farmers also work together in labour exchange groups (locally referred to as nnoboa), and some

have been part of farmer field schools. A lot of cocoa farmers are not bankable. Increasingly, business partners provide credit (in kind) to farmer groups.

4.8 Peculiar Challenges in Cocoa Production

The cocoa sector does not live up to its potential or make the most of the demand for its products despite the progress made over the years. Because Ghana produces the highest-quality cocoa in the world, the country can sell most of its crop in advance of the harvest, indicating that production increases could be absorbed by the global market. Additionally, it is observed that principally in emerging markets, demand for cocoa is mounting, making an upsurge in prices a distinct possibility in the coming years (LMC International, 2016). Regardless of these very promising conditions, and with a very active regulator, Ghana's cocoa yields remain low and far below their potential, since the 1990s. It is well noted that in Ghana, average cocoa yields have increased in recent years, nevertheless, only exceeded 500 kg per ha in 2012, while Côte d'Ivoire and Mexico had 580 and 700 kg per ha (FAOSTAT, 2016).

Estimates further suggest that yields of 800–1,000 kg per ha could be achieved in Ghana (Mohammed et al., 2012). These comparatively low yields are seen to be due to a combination of factors which include agronomic practices, low soil fertility and limited access to financial services. These factors have not allowed farmers to engage in high-productivity cocoa farming (Mohammed et al., 2012). Household incomes of farmers are mostly depressed by the low productivity of Ghana's cocoa trees which in turn constrains farmers' ability to purchase yield-increasing inputs, including insecticides, fertiliser, and pesticides (Ibid.). Just as with climate change, these obstacles have become more

prominent and declining soil fertility means more inputs are necessary to realise the same yields. These obstructions discourage young individuals who want to go into cocoa production disproportionately, compared to established farmers (Löwe, 2017).

Some of the abovementioned inputs and spraying services are provided for by COCOBOD for free, but the board's service provision is unreliable, and farmers cannot anticipate in any given year the level of fertiliser and pesticide that will be required (Mohammed et al., 2012). Yields are additionally depressed by the ages of both cocoa farmers and trees. The age of the average Ghanaian cocoa farmer, at 54 years old, somehow explains why such a huge percentage of the country's cocoa is produced in a labour-extensive way (COCOBOD, 2015; WHO, 2016). On the other hand, almost a quarter of trees are over 30 years old and need to be replaced to increase yields (COCOBOD, 2015).

Another challenge in the cocoa sector is access to finance which is very limited. Farmers and local leaders mostly report that they find it shameful to access credit principally through informal moneylenders, which is also exceptionally expensive. With the informal loans provided by moneylenders, the structure follows the logic of cocoa production and therefore such credits are issued for the duration of the cocoa season. Accordingly, a blanket interest rate of 100% is charged for the loan, irrespective of when in the season money is borrowed or it is repaid. Generally, banks consider cocoa farmers a poor risk, and so only 5% of farmers indicate having access to formal loans (Mohammed et al., 2012). Nevertheless, microfinance institutions are not very widespread or trusted (Nyemeck et al., 2008).

Moreover, increasing production levels by putting more land under cocoa cultivation is not an option given the absence of virgin land. Aspiring farmers could increase their production extensively, through sharecropping arrangements some time ago, when land shortages were not yet a major constraint to the production of cocoa. Nonetheless, such organisations have come under pressure from land shortages and declining yields, such that they are now less common and their terms less favourable. Furthermore, population growth has complicated inheritance, as more and more youths have legal claims over land that belonged to their predecessors. This situation does not only increase conflict over the land itself, but then it also makes numerous potential cocoa farmers unwilling to invest labour or financial resources in their farms, where there is a risk that they may be expected to share proceeds with the extended family.

Interactions with farmers have revealed that where once ‘abusa’ sharecropping involved small gifts to the landlord, currently, it involves considerable deductions from the total harvest. Where resident farmers work on cocoa plantations that are established or are rehabilitating older farms, the sharecropping contract has become less lucrative as a result of declines in soil fertility. Now more labour and inputs are required to achieve the same yields. There is the possibility climate change will aggravate this trend to some extent. Investigations have confirmed that land is becoming increasingly scarce in cocoa-growing regions, owing to population growth and mining concessions.

The situation of increasing scarcity of land in cocoa-growing regions has increased intergenerational conflict, as most land is held by older farmers, and has increased the price of land considerably. The youth are less likely to be aware of opportunities that might be available to them, for instance through ‘abunu’ or ‘abusa’. This is because they have

smaller social networks, and opportunities for sharecropping are advertised and negotiated through such networks. Furthermore, the lands that may be available to be accessed by young individuals are frequently of poorer quality and smaller or fragmented. Also, observations have shown to some extent contradictory perceptions older generations have about the youth. The youth are at the same time decried as inexperienced in agriculture and, hence, not worthy of the land they are looking for and lazy. This suggests that portraying the youth as lazy may serve older generations, who are making an effort to hold onto their land in the face of demands for access by the younger generation (Löwe, 2017). Moreover, it is regularly argued that the ability to acquire land and rates of investment in the production of crops, especially cocoa are decelerated by inappropriate documentation of land tenure rights. As documentation is unreliable, access to land is made riskier for those who have the resources to enter into contracts for land sale or sharecropping. Similarly, uncertain tenure results in farmers not investing much in the land available to them, or they limit their investments to those that offer quick returns (Löwe, 2017). Nevertheless, it is argued that Ghana's cocoa-growing region has been distressed due to attempts to formalise land tenure, predominantly through the increased conflict between indigenous communities and migrants (Berry, 2009). Individuals and communities compromise and make more informal and flexible tenure arrangements without formal land arrangements.

However, when land titling was introduced, this also increased the stakes involved in the ownership of or acquiring of land, making disagreements more likely to escalate into more serious conflicts (Berry, 2009).

4.9 Pricing Policy in Ghana

Cocoa pricing policy has been the responsibility of COCOBOD. The board sees an increase in the producer price as an incentive for increasing cocoa production. Observations with the pricing of cocoa suggest that farmers respond to price by changing the intensity with which they tend their farm. For instance, when prices fall the farmers stop with maintenance and with new planting activities. On the other hand, in case of prices cover or exceed variable costs farmers will intensify farm management. For example, by investing in harvesting, weeding and the use of inputs including fertilisers and insecticides (Anim-Kwapong & Frimpong, 2004).

Producer price has over the years been set by COCOBOD. The yearly producer price increased from 56% of the FoB in 1998/99, up to 70% in 2004/05 and 76% in 2011/12 (Ministry of Finance, 1999; Laven & Boomsma, 2012). The production of cocoa has followed this growth path, but usually, it is delayed. In addition to the aforementioned, COCOBOD managed to increase its producer price. The pricing system provides Ghanaian cocoa farmers with a stable income, allowing them business planning. The disadvantage of the pricing system is that it does not provide farmers with incentives to produce superior-quality cocoa beans. Also, it does not allow negotiation for better prices (Laven & Boomsma, 2012).

There is no price differentiation for cocoa of different quality in Ghana. Furthermore, LBCs are not given the chance to buy cocoa below the producer price, and they are not encouraged to pay farmers above the fixed price. These companies receive a fixed buyer margin for their services. What is observed is the introduction of premiums for some speciality cocoa and cocoa that are certified. This gives both the LBCs and farmer groups

the opportunity to diversify their marketing channels. This premium, which is put on top of the producer-price, is shared between certificate holders, cocoa farmers, and possibly other business partners. Possibly, farmers receive at least 50% of the premium. Not always is this premium paid in cash to the farmers, but some amount can also be put into a social fund, for instance, KKFU (Laven & Boomsma, 2012).

4.10 Chapter Conclusion

The chapter has discussed Ghana's cocoa sector from a historical perspective. Accordingly, it has been observed that Ghana's relationship with cocoa commenced at a meagre state when it exported two bags only of beans in 1891. However, in less than 20 years Ghana became the largest exporter of cocoa globally. Currently, notwithstanding some problems in the sector, Ghana has a vibrant cocoa sector, producing the world's best cocoa while coming second only to Côte d'Ivoire in terms of quantity.

The chapter has also discussed the contribution of the cocoa sector to the socioeconomic development of Ghana. The cocoa sector has been indicated to contribute significantly to the socioeconomic development of Ghana, principally in terms of its contributions to GDP, employment and foreign exchange (Teye & Nikoi, 2021). Also, it is discussed that several indications point to the fact that cocoa can continue to play a significant role in Ghana's economic growth toward achieving Middle-Income Country (MIC) status.

Moreover, in terms of the production capacity of the entire cocoa sector, it has been observed in this chapter that in 2006 Ghana had a peak production volume above 600,000 tonnes; a level which had been difficult to attain over the years (Usang & Oluwasegun, 2021). Currently, the country's production levels have hovered in a range above 500,000

tonnes, going up above 800,000 tonnes in 2018 and one million metric tons in 202/2021 cocoa season (Usang & Oluwasegun, 2021).

The impact of climate change on the cocoa sector has been discussed in this chapter. Concerning this theme, research has revealed that climate change is one factor that has received a lot of concern from many stakeholders as it is affecting the cocoa sector. It is understood generally that while climate change is a global phenomenon, adaptation is principally site-specific (Metternicht et al., 2014). From all indications, it is observed that climate change is indeed altering the stages of rates of cocoa pests and pathogens development and modifying cocoa's resistance to such threats (Oyekale et al., 2009).

In terms of the need for strong stakeholder collaboration in dealing with the climate change menace, the fundamental intention of the United Nations Framework Convention on Climate Change (UNFCCC) process was to reduce the source of climate change rather than adapt to the changes (Schipper, 2006). Also, in collaboration with UNDP and UN Environment Programme, the EPA has received funding from the Danish Ministry of Foreign Affairs to establish the National Climate Change Adaptation Strategy (2010-2020).

Furthermore, the chapter has discussed the Cocoa Life Programme which seeks to generate a sustainable cocoa supply by transforming the lives of farmers and communities at scale. The features of the Ghanaian cocoa supply chain; peculiar challenges in cocoa production, and pricing policy in Ghana have all been discussed in this chapter.

CHAPTER FIVE

GOVERNANCE OF CLIMATE CHANGE POLICY IN THE COCOA SECTOR

5.0 Introduction

This chapter [Five] addresses the first research objective which aims at investigating how the governance of climate change policy play out in Ghana's cocoa sector. On a whole, all three objectives and research questions are presented in separate empirical chapters. This first empirical chapter is dedicated towards the first research question which seeks to understand how climate change policies in Ghana's cocoa sector are governed. To achieve this objective, key informant interviews, focus group discussions and documentary data were systematically analysed and presented in the following three chapters. The first part of this chapter presents the characteristics of respondents for all three requests. Overall, the three empirical chapters start with climate change policy governance and stakeholder relations and proceed to present data on the forces driving stakeholder collaboration and its impact.

The third chapter on data presentation is dedicated towards data on the significance and factors hindering comprehensive stakeholder integration in the governance of climate change policies in Ghana's cocoa sector. The study sought to understand climate change policy governance in Ghana's cocoa sector and further investigates how stakeholder interactions play out, considering the enormity of stakeholder interest in Ghana's cocoa sector. The chapter benefits from analytical rigour, which was directed and shaped by the

objectives underpinning the study. The findings of the study, which were guided by the objectives outlined by the study, have been coherently presented in themes and sub-themes emerging from the data sources employed. The main theme (climate change policies governance and stakeholder relations) incorporates sub-themes, which are fortified by direct or verbatim quotes emanating from the responses from study respondents and quotes from relevant documents.

The key features of the respondents interviewed for the study as well as the characteristics of the participants constituting the focus group discussions of the community-based farmer cooperative societies have been presented in [Section 5.1] of this chapter. Section 5.2 of this chapter presents the description of the themes and sub-themes bothering climate change policy governance and stakeholder relations and proceeds to the forces driving stakeholder collaboration and its impact [Section 5.3]. The concluding part of the chapters contains a summary of key findings on climate change policy governance and stakeholder relations in Ghana's cocoa sector.

5.1 Key Features of the Study Sample

The main sources of data employed by this study include key informant interviews, focus group discussions, as well as documentary analysis. Overall, fifty-three (53) respondents were engaged in the study through face-to-face interviews. All 53 key informants were conducted through a semi-structured interview (Table 5.1). Almost all respondents involved in the study were top-level and middle-level managers within their respective organisations with an in-depth understanding of the key issues under investigation. In much the same way, the majority of the respondents forming part of the key informants'

interviews were educated, such that 79% had attained various university degrees and certificates with a good understanding of the core issues of the study and also experience since they have worked in their current positions for two years or more. In all, respondents had a minimum senior high school certificate. To ensure confidentiality for respondents and responses given, all 53 key informants are represented numerically (as No.01-No.053) in the presentation of the findings (Chapters 5-7) in no order. The table below (Table 5.1) presents the characteristics of the 53 respondents involved in the key informants' interviews.

Table 5.1: Characteristics of the 36 respondents forming the Key informant interviews

Characteristics		Number	%
Sex	Male	29	55
	Female	24	45
Educational Background	SHS Certificate	11	21
	Diploma Certificate	6	11
	University Degree	36	68
Level of Operation of Participants	National	36	68
	District	17	32

Source: Field Study, 2022

Aside from the key informants' interviews, two (2) separate focus group discussions (Table 5.2) were carried out to enhance the triangulation and reliability of the data gathered. Firstly, a focus group discussion of community-based cooperative societies which saw the involvement of a pioneer cocoa farmers' cooperative society by the name Kuapa Cocoa Farmers' Cooperative Union and Cocoa Abrabopa and another community-based cooperative society was conducted. This focus group discussion comprised five (5) male farmers and four (4), female farmers, within the age ranges of fifty-one to sixty-three years (51years-63years). This age ranges appear to be consistent with the conventional knowledge that the average cocoa farmer in Ghana is beyond 50 years, with in-depth practical experience in cocoa farming practices.

The second focus group discussion constituted eight (8) participants with five (5) being males and three (3) being females. Participants were made up of community-based stakeholder groups with lived experiences of the study area, with more than two years of experience in cocoa and how stakeholder integration plays out in the community. This FGD constituted traditional authorities, youth groups, market women associations and other local-level associations as consistent with the issues under investigation. Almost all participants had a good knowledge of climate change impacts on cocoa and practical experience of how stakeholder integration plays out in the cocoa sector. Responses from the two focus group discussions are codified as FGD 1 and FDG 2 for confidentiality and easy reference and reliability.

Table 5.2 presents the characteristics of participants involved in the two separate focus group discussions undertaken for the study.

Table 5.2: Features of participants involved in the 2 separate Focus Group Discussions conducted

Characteristics		FGD1	FGD2
Sex	Male	5	5
	Female	4	3
Age Ranges	31-40yrs		3
	41-50yrs		3
	51-60yrs	7	2
	61+	2	
Years of Experience	1-3yrs		3
	4-6yrs	3	3
	7-9yrs	6	2
No. of participants in each group		9	8

Source: Field study, 2022

5.2 Governance of climate change policies in Ghana

Climate change continues to affect all facets of the world's economy, with an established severe impact on the world's most deprived countries due to the inability of these nations to enact and implement sustainable adaptation measures. Hence, the governance approach employed for the overarching management of climate change in a country plays a critical role in the efficacy of the country's mitigation and adaptation measures. Governance of climate change calls for government and para-statal intuitions to express strategic interest towards fashioning out adaptation and mitigation policies for climate change. Generally, sustainable management of climate change requires a coherent governance approach where international, national, regional and local climate change initiatives are well aligned with sectoral climate change measures.

The rationale is that climate change characteristics and ramifications, call for its regulatory framework and policy ecosystem. Governance of climate change policies calls for the development, adoption, implementation and evaluation of strategic policies that afford nations the ability to adapt to the challenges posed by climate change. The central position is that how policies are managed from the agenda-setting state, through to their adoption and implementation tend to have varied ramification on the efficacy of the policy, in terms of the outcome of the implementation. This section of the study examined the main climate change polices in Ghana, the procedures and processes followed through for the enactment, formulation and adoption of these policies and how the implementation is carried out.

Ghana can boast of the increased presence of climate change-related policy interventions and existing institutional frameworks established to champion the implementation process of major priorities and objectives of the government. In all, the data analysis captured eight

(8) crosscutting themes emerging from the field data gathered on the major climate change policy frameworks, strategies, and programmes in Ghana. These sub-themes were the Coordinated Programme of Economic and Social Development Policy, Reducing Emissions from Deforestation and Forest Degradation Strategy (REED+), Ghana's Fourth National Communication to the United Nations Framework Convention on Climate Change and Ghana's Intended Nationally Determined Contribution.

Also, the Ghana National Climate Change Policy, the National Climate Change Adaptation Strategy (NCCAS), the National Action Program to Combat Drought Desertification and the UNFCCC Initial National Communication on climate change were all existing national climate change policies in Ghana, as revealed by the study.

5.2.1 Coordinated Programme of Economic and Social Development Policy

Findings of the study suggest that a multi-sectorial approach is required for the smooth management of climate change constraints, hence, the formulation of the Coordinated Programme of Economic and Social Development policy (CPESDP). Informants mentioned that the CPESDP as formulated in 2017, is a national policy that seeks among other things to protect the natural habitat, reduce climate change impacts and ensure agricultural development. Documentary evidence indicates that CPESDP 2017-2024 is formulated on the premise of “rehabilitating degraded areas and supporting the conservation of biodiversity and priority ecosystems” (The Coordinated Programme of Economic and Social Development Policies, 2017-2024; Republic of Ghana, 2017 p.3). The idea is to build the required infrastructure necessary for the reduction of deforestation, desertification, and unauthorised artisanal mining and to minimise the effects of climate change on agricultural production, energy and water resources.

A Commissioner at the National Development Planning Commission (NDPC) said that:

For instance, the Coordinated Programme of Economic and Social Development policy provides strategies for reducing soil erosion, illegal artisanal mining and climate change menace in the agriculture sector of Ghana by strengthening mitigation and adaptation measures already mainstreamed by the various climate change policies. The policy highlights among others, key interventions required for forest conservation, green economy, biodiversity conservation, deforestation and desertification in cocoa growing areas. State support towards building sustainable investment in selected agricultural products such as cocoa, cotton, cashew, oil palm, and Shea nut is equally specified in the policy [Field work data transcript: No. 01].

The study findings suggest that illegal artisanal mining which is contextualised in Ghana as ‘galamsey’ has varied implications for Ghana’s cocoa production. The extent of damage is evident in the destruction of farmlands by illegal miners, the destruction of water bodies and the use of harmful chemicals, which are not environmentally friendly for cocoa production.

A Deputy Chief Executive Officer (Dep. CEO) responsible for operations at COCOB added as follows:

The Coordinated Programme of Economic and Social Development policy also provides strategies for the reduction of illegal mining activists on farmlands and protected water bodies, which are already experiencing the impacts of climate change. The policy indicates the roadmap and the right institutional relations required for sustainable management of agricultural lands and forest reserves on the account of food and nutrition security [Field work data transcript: No.02].

5.2.2 Reducing Emissions from Deforestation and Forest Degradation Strategy (REDD+)

The REDD+ strategy is one of the policy frameworks identified by the study to be advancing state intervention for climate change management. Informants explained that reducing emissions is significant considering the continuous increase in greenhouse gas (GHG) emissions by the agriculture and forestry sector, energy sector and waste sector, among others. Documentary evidence shows that between 1990 and 2012, Ghana witnessed a 136.37% increase in total GHG emissions with the agro-forestry and energy sectors contributing 45% and 40% respectively (Republic of Ghana, 2017 p. 40). This has been attributed to the increasing levels of deforestation and forest degradation. Informants explained that the increasing levels of deforestation are attributable to heavy encroachment on forest reserves in Ghana and the depletion of off-reserve natural habitats through illegal logging, mineral exploitation and farm expansion.

The findings show that the REDD+ strategy has been discussed and practised long before the official REDD+ strategy in 2016 due to the upsurge in illegal mining, increase in the wildfire, unauthorised logging of trees, as well as bad agricultural practices. The National Climate Change Policy of 2013 and the National Forest and Wildlife Policy of 2012 were the main policy frameworks adopted by Ghana for the implementation of REDD+ interventions before the official introduction of REDD+.

Asked which climate change policies exist in Ghana, a member of the National Climate Change Committee (NCCC) sums up as follows:

The Ghana REDD+ strategy is one of the main climate change policy interventions which details the national interventions for reducing reforest

degradation and deforestation to achieve a low carbon pathway in Ghana [Field work data transcript: No.04].

Evidence shows that the FC through the Forest Investment Programme (FIP) and the Ghana Cocoa Forest REDD+ initiative continue to invest in building sustainable mechanisms that reduce the spate of forest degradation and deforestation (Ghana REDD+ Strategy 2016-035; Forestry Commission, 2016 p.7).

Respondents highlighted that to reduce the occurrence of deforestation and degradation, the FC has rolled out various strategies consistent with the REDD+ strategy as explained by a Manager at the FC below:

For instance, the Forestry Commission (FC) has started the replanting of 20,000 hectares of land that was already degraded by illegal loggers, bad farming practices, bushfires etc. This intervention forms part of the 25-year programme of the Commission together with its stakeholders to restore Ghana's forest cover by replanting both on-forest reserves and off-forest reserves across the country. As we are all aware, the Commission in collaboration with the Youth Employment Agency (YEA) in 2018, started a vigorous Youth in Afforestation project targeted at restoring our depleted forest reserve and planting more trees in line with the REDD+ strategy [Field data transcript: No.03].

The REDD+ strategy offers a twenty-year guide for attaining natural resource integrity through sustainable afforestation and reduced forest degradation with chances for periodic reviews. In many ways, as explained by respondents, the REDD+ strategy is to reduce GHG emissions, preserve forest resources and enhance environmental sustainability.

5.2.3 Ghana's National Communication on Climate Change

Key Informants stated that Ghana's National Communication to the United Nations Framework Convention (UNFCCC) is a strategy to communicate national commitments

and progress on the climate change interventions underway in Ghana. As a policy consistent with Article 4 and Article 12 of UNFCCC obligation, Ghana's national communication is carried out periodically to report gains and show the critical gaps in the national efforts, so far, on key climate change concerns. Respondents mentioned that the Fourth National Communication as published in 2020, represents the most recent national climate change communication presented to the UNFCCC as a follow-up to the third national communication in 2016. The study shows that in this policy guideline, the Environmental Protection Agency (EPA) serves as the focal point for the UNFCCC and handles all technical aspects of the national communication report.

Documentary analysis observed that Ghana's national communication on climate change exists to effectively disseminate information on climate change situations and to domesticate provisions from UNFCCC into Ghana's climate change governance (Ghana's Fourth National Communication to the United Nations Framework Convention on Climate Change-Republic of Ghana, 2020 p.1).

A Member of the Parliamentary Select Committee on Food, Agriculture and Cocoa Affairs intimated that:

As a country, we are under obligation as per the relevant articles under the UNFCCC laws to prepare and publish Ghana's progress through an evidence-based approach and communicate the same to the United Nations. The idea for this policy on communication is to create awareness of Ghana's climate change outlook and propel action towards sustainable progress. In doing so, the Environmental Protection Agency (EPA) serves as the main facilitator of national communication on climate change but cooperates with all relevant stakeholders as required [Field work data transcript: No.05].

Respondents are of the view that these provisions in the UNFCCC do not come as a strict commitment to member countries to comply at all costs. The Convention indicates the

threats posed by climate change and specifies the need for urgent action by member states. Few informants however bemoaned how these conventions tend to limit countries from spearheading climate change actions into producing a mere document to show progress on climate change.

A Key Informant from the EPA observed as follows:

At present, Ghana has satisfied all the requirements of the UNFCCC on national communication on climate change. Both the third and fourth national communication on climate change to UNFCCC has provided Ghana's climate change situation and actions tabled by the government. However, this policy sometimes reduces member countries like Ghana into producing a mere policy document without any pragmatic actions towards climate change adaptation and mitigation [Field work data transcript: No.06].

5.2.4 Nationally Determined Contribution

The nationally determined contribution under the Paris Agreement and updated to span from 2020-2030, is one of the climate change policy interventions as revealed by respondents. Key informants mentioned that the nationally determined contribution as a policy, affirms Ghana's commitment towards embracing an ambitious climate change action for mitigation and adaptation purposes. This strategy forms part of the global action by member states as consistent with the Paris Agreement, AU's agenda 2063 and UNFCCC decisions. To this end, documentary information shows that following the need for actions that co-benefit the nation in terms of mitigation and adaptation measures "...Ghana has developed 19 policy actions in 10 priority areas to achieve nationally determined contribution goals in the next decade" (Updated Nationally Determined Contribution under the Paris Agreement 2020-2030; Republic of Ghana, 2021, p.8). Key informants indicated

that the updated nationally determined contribution is in tandem with Ghana's long-term development goal of achieving sustainable development.

A respondent from MESTI puts this in perspective as follows:

This national strategy benefits from an extensive consultative process and offers the right blueprint for building the required resilience to withstand climate change impacts. The nationally determined contributions highlight the necessary ambition needed by Ghana to mitigate GHG emissions and accelerate sustainable livelihood [Field work data transcript: No.07].

Some informants mentioned that the initial nationally determined contribution as formulated in 2016 offered Ghana's determination towards accelerating climate action; the policy was not specific in terms of the expected long-term outcomes. However, the updated national strategy as evident in the study finding offers specified outcomes for the decade (2020-2030) under review.

A key respondent from MESTI explained as follows:

The updated national development strategy or the nationally determined contribution as we often call it has the following outcomes under expectation. That is, build requisite socio-economic resilience, improve the restoration of Ghana's landscape, and engender responsible consumption and production, speed-up the process of the sustainable energy transition, among many others. In doing so, the Ministry of Environment, Science, Technology and Innovation (MESTI) must master its coordination role. Again, the EPA needs to do well at tracking and reporting intervention and progress. So far, the NDPC must effectively mainstream the nationally determined contribution to the development plans of all MDA and MMDAs in Ghana [Field data transcript: No.08].

Further probing shows that Ghana's nationally determined contribution to mitigating and adapting to the impact of climate change tends to benefit from properly laid down time frames for timely implementation. Respondents revealed that these time frames and periods

for implementation of the nationally determined contribution strategy are coherent with the resolutions of the Paris Agreement.

This was specifically explained by a respondent from MOFA as follows:

...the timeframe for the implementation of the nationally determined contribution spanning 2021-2030 is in two phases. The first cycle of implementation, which is expected to last for 5-years starts from 2021-2025, whilst the second phase of the 5-year cycle starts in 2026 and ends in 2030, with plans for a mid-term review in 2025 [Field work data transcript: No. 010].

The determination shown through this policy demonstrates the unwavering commitment of the Ghanaian government towards reducing the impact and vulnerability posed by climate change. Respondents, however, elucidated those fiscal constraints, inadequacy in the financial resources, and provision, remain the main challenges bedevilling Ghana's commitment to addressing this climate canker.

5.2.5 Ghana National Climate Change Policy

Findings suggest that the Ghana National Climate Change Policy (NCCP) serves as a policy direction for managing climate change vulnerabilities in Ghana through broader stakeholder collaboration. This is in line with Ghana's national development trajectory as specified in the Ghana Shared Growth Development Agenda (GSGDA I & II) and all other national development plans. Key informants indicated that the national climate change policy as formulated in 2013, affirms Ghana's readiness to build a climate-resilient nation through prudent adaptation and mitigation structures. Respondents mentioned that the NCCP provides the right blueprint for low-carbon growth and an integrated approach towards managing climate change concerns in Ghana. As a policy framework, the NCCP

provides pragmatic pathways to dealing with climate change as a global crisis with national effects.

Documentary information shows that the national climate change policy “provides for the necessary actions on adaptation and social equity that are needed for national development to support Ghana in harnessing the opportunities from low carbon growth, and to integrate climate change into the main planning and budgeting processes at the national, regional, District as well as the sector Ministries, Departments and Agencies (MDAs) operational levels” (National Climate Change Policy-Republic of Ghana, 2013; P. 8). However, informants indicated that the NCCP is not the only climate change policy currently in operation. There are many other climate change policies complementing each other in building a green economy.

An informant from NDPC put this into perspective as follows:

The NCCP is one of the main climate change policies that is complementing many other climate change policies to enhance climate-resilient growth in Ghana. This policy presents a harmonised framework for providing policy directions and managing the impacts of climate change concerns and complying with international commitments on climate change [Field work data transcript: No. 09].

Some informants indicated that the NCCP offers strategic and sustainable policy directions for the realisation of efficient social development, effective climate change adaptation and sustainable mitigation against climate change. According to them, achieving a compatible and resilient economy as championed in the NCCP rest on the footings of some key pillars as enshrined in the NCCP document.

A respondent from EPA further explained as follows:

The policy can never achieve its purpose except through integrated and comprehensive governance involvement, key stakeholders, sustainable financial provision, building the capacity of people who matter, application of innovation, scientific knowledge and technology, sensitisation, timely monitoring and evaluation, as well as cooperation among all actors. Instituting these appropriate measures leads to the success of every policy and not the NCCP alone [Field work data transcript: No. 011].

Further probing shows that the NCCP provides a strong direction for moving the intents from a mere policy perspective into an actionable stage where all the pathways toward sustainable development are succinctly explained. Documentary evidence indicates that achieving climate change mitigation and adaptation cannot be successful when all intents and timelines for action are not well expressed in the policy document (EPA Policy Advice Series No. 1, 2012). Therefore, actionable policies are necessary towards attaining socio-economic development and green growth as indicated in the findings of the study.

5.2.6 National Climate Change Adaptation Strategy

The national climate change adaptation strategy serves as one of the mechanisms rolled out to reduce the vulnerabilities posed by climate change in Ghana. According to respondents, this national strategy remains key in Ghana's climate change outlook as it set out to proactively bolster commitments towards building climate change resilience in Ghana, through a tailored sensitisation mechanism. Findings suggest that this climate change policy serves as the main instrument for strengthening efforts toward localising climate change strategies into the national development plans for subsequent mainstreaming into medium-term development plans through the various MDAs and MMDAs. Respondents added that the national climate change adaptation strategy remains one of the key climate

change policies that position Ghana into reducing vulnerability, considering the overreliance of citizens on climate for livelihood.

Documentary information reveals that “the need to properly plan and carefully adopt a development path that ensures climate resilience and integrate adaptation measures into all facets of national development planning, particularly at the local level, makes the preparation of a National Climate Change Adaptation Strategy (NCCAS) all the more relevant” (National Climate Change Adaptation Strategy-Republic of Ghana, 2012. P.7).

A respondent from NDPC explained as followed:

Well, one of the main climate change policies evident in Ghana is the National Climate Change Adaptation Strategy, which is formulated to enhance the resilience of the Ghanaian populace to the on-going impact of climate change and to strengthen them against the future happenings of climate change. The approach under this policy is targeted and enhances resilience building [Field work data transcript: No. 012].

Further probing indicates that the NCCAS as a policy directive for climate change adaptation has an action plan, also formulated and coordinated by the EPA to shepherd the NCCAS into reality. The action plan provides a framework for achieving sectorial-based climate change resilience with all critical sectors performing specified roles in the process. Documentary evidence as indicated in the World Bank report on the country profile of climate risk and adaptation shows that the NCCAS presents a formidable approach for identifying critical areas of climate change vulnerability and the urgent steps needed for risk reduction, mitigation and adaptation (World Bank, 2011 p2). A respondent noted that the NCCAS was initially intended to be a decade-long strategy for climate change adaptation with its period spanning from 2010 to 2020 with an avenue for revision after expiration.

A respondent asserted that the NCCAS is currently under review, though its core intents are still under operation in all relevant MDAs and MMDAs.

This was explained by the Municipal Planning Officer of the Berekum East Municipal Assembly as follows:

The NCCAS was formulated as a strategy from the UNFCC and Hyogo Framework for Action (HFA) 2005-2015, to build resilient systems and infrastructure, both social and economic. This was to resolve the growing impact of climate change and to engender sustainable development in Ghana's socio-economic and environmental framework by taking stock of the pervasive nature of climate change at the time of its promulgation [Field work data transcript: No. 013].

Thus, respondents hold the view that the NCCAS was in response to the fragile local level networks at the time of increase in flooding in certain areas in Ghana and the heightened drought situations in some key agricultural communities, limited capacity by the existing human resources to manage climate change issues, poor infrastructure outlook and the low financial resource allocations to critical sectors of prime concern. A respondent from the NDPC revealed as follows:

The NCCAS was introduced against the background that successive governments have failed to introduce proactive adaptation programmes, hence, the existence of structural weakness in the areas of flood management, unmatched human resources, disregard for sustainable water harvesting techniques, as well as a gap between science-based approaches and traditional practices. The NCCAS was, therefore, a strategic tool to build resilience over the decade and more [Field work data transcript: No. 014].

5.3 Climate Change Policy Development and Implementation in Ghana

Governance of climate change policies calls for the prudent development and implementation of elaborate policies, that ramp over the challenges posed by climate

change. Thus, the way policies are enacted, and the processes followed through in policy development have vital implications for the success of these policies. This section of the study interrogates the processes of climate change policy development in Ghana and further investigates how international climate conventions and commitments shape the policy formulation and implementation regime in Ghana. The finding of the study highlights that although normal policy processes prevail for all public policies, the policy enactment and processes for climate change appear to benefit from broad ratifications and domestication of international climate consensus, considering the global nature of the climate crisis. However, the process of developing climate change policy goes through the usual policy process, which includes problem framing, policy formulation, policy implementation and monitoring and evaluation.

5.3.1 Problem Framing

The research findings suggest that climate change policymaking goes through a cyclical process with problem framing leading the process as the first stage. Informants indicate that problem framing forms fundamental parts of the policy development process, where identification of needs and the complexities of the climate change crisis are undertaken. This stage aims at identifying and understanding the actual problems and the vulnerabilities at play. Respondents mentioned that the initial phase of the policy processes for climate change is to define clearly what the climate change issues are, to shape the formulation of targeted policies. Documentary information indicates that “the initial stage towards formulating successful climate change policies is to understand what climate change entails and the manifestations of climate change in the various regions of Ghana as termed in most

policy literature as “problem framing or problem identification” (EPA Policy Advice Series No. 1, 2012. p.3).

To explain the issues further, a respondent from the EPA said:

Framing climate change as a complex problem requiring comprehensive action enhances interest generation and collective action towards reducing vulnerabilities. At the initial phase of the policy process, we needed to identify and define the core issues causing climate change and that is what policy makers do globally. Ghana’s climate change policy processes used the problem framing stage to understand the climate change challenge and the required widespread action needed as a country [Field work data transcript: No. 015].

Respondents mentioned that the global nature of climate change makes this policy process relatively easier. For instance, Ghana has since 1995 ratified the UNFCCC, which identifies climate change as a global challenge requiring national-level attention. Informants indicate that Ghana’s preoccupation was simply to initiate steps by acting in line with the tenets of the convention as ratified. The agenda was then set for a holistic examination of the climate change problem and to prioritise the areas of grief concern for the country. Respondents stated that as part of the problem framing, agenda setting is carried out by the various media outlet to interrogate the core issues for relevant agencies such as the MESTI, EPA, MoFA, MoFEP, Ghana Metrological Agency etc. to respond by providing clarity to issues raised.

Respondents stated that climate change policy framing starts from the international consensus on climate change, as agreed upon by member states and trickles down to respective countries. For instance, in the fallout from COP 21, a UN conference on climate

change in Paris charged respective countries to set ambitious actions which involve cross-sectoral involvement towards climate change to attain sustainable development.

A key Informant from the EPA mentioned that:

In the case of Ghana, climate change policy development emerged from the consensus reached by intergovernmental cooperation such as UNFCCC, World Bank etc. on the threats posed by climate change and the need to decree it as a global complex crisis demanding global attention. Ghana then started the phase of problem framing to suit the contextual realities in Ghana after broad stakeholder consultation. The problem framing stage is where Ghana contextualises climate change as a crisis and the various vulnerabilities that Ghana is facing [Field work data transcript: No. 016].

Respondents summarily indicated that the problem-framing phase considers key policy processes such as the identification of needs and setting the agenda for climate change policy. The problem framing needs to fit into the National Development Plan, to serve as a strategic anchor for development. Informants highlighted that the problem framing stage brings into perspective the actual climate change problem as evident in Ghana, the extent of damage and vulnerabilities posed by climate change to the various sectors of the economy.

5.3.2 Policy Formulation

Key informants mentioned that policy formulation forms a key part of the climate change policy processes in Ghana. The policy formulation stage represents the actionable stage where the climate change problem is framed as an effective means for addressing the climate change challenges and vulnerabilities. An evidence-informed climate change policy was then formulated by the responsible MDA to pave way for the policy documents to be drafted for action. Informants are of the view that the initiation of the climate change

policy formulation process starts with the evidence of climate change in Ghana, analysis of the policy options, consultation of key stakeholders, meeting of the technical working group and the drafting of the policy documents.

A member of the NCCC puts this into perspective as follows:

The climate change policy formulation process started with the initiation of policies, which was guided by the National Climate Change Committee (NCCC). The NCCC has representatives from all relevant MDA such as MESTI, MoFEP, NDPC, MoFA, Ministry of Foreign Affairs, Ministry of Energy, EPA, FC, MoH, Energy Commission, CSIR and all relevant NGOs and international cooperation [Field work data transcript: No. 017].

The findings of the study pointed out that all policy options are discussed thoroughly and comprehensively to make sure that policies agreed upon are capable of meeting the needs identified under the problem-framing stage. This stage brings to the fore “how, what, who, when” the actual climate change problems are going to be confronted in a more coherent manner as consistent in the national development strategy of Ghana. According to informants, the climate change policy formulation process in Ghana enjoyed a consultative process where all actors, both government and non-governmental organisations gather through a working committee, to think through the problems inherent in the policies, and to streamline strategies through a policy document. However, some informants were of the view that these broad consultative processes engaged throughout the climate change policy formulation state tend to undermine the spearheading role of MESTI and EPA. This is often so with climate change policies, considering the extent of interest in climate change issues and the global nature of the complex climate change crisis.

A respondent from MESTI explained this position as follows:

The policy formulation process characterising Ghana's climate change policy formulation had always enjoyed broad consultation. This is a very good practice considering the nature of climate change constraints and the vastness of its impact. However, this broad consultation process causes a leadership problem since the MESTI, and EPA does not enjoy their absolute leadership role as expected. The mandate of MESTI to engineer leadership and formulate policies through the EPA is sometimes tempered by other stakeholders, which causes inter-agency conflicts [Field work data transcript: No. 018].

Few informants bemoaned the situation where some development partners take charge of the climate change policy formulation process considering the extent of interest and the global nature of the crisis. However, the need for cooperation, coordination and consultation cannot be underestimated in a critical matter such as climate change policy formulation. The findings of the study indicated that the working teams including key stakeholders, undertake extensive environmental scanning on the existing climate change-related policies on the international level, national, regional and various MMDAs to ensure consistencies in the national climate change policies. This is to allow for comprehensive institutional and stakeholder participation and buy-in on the formulation of the national climate change policy.

A respondent from EPA revealed how the policy formulation takes place as follows:

The policy formulation process on climate change in Ghana saw the meeting of a technical working group made up of several stakeholders who met to deliberate on the core issues of climate change in Ghana and the appropriate policy climate for managing it. In doing so, clear attention was paid to a research document on climate change vulnerability in Ghana as well as the international consensus on climate change [Field work data transcript: No. 019].

Extensive probing shows that the technical working committee on Ghana's climate change policy formulation through extensive consultation and evidenced-based research put up a

zero-draft. The policy draft and validation process were then carried up after a broader stakeholder consultation has been carried out. Respondents mentioned that the policy document went through several drafts before the final draft was realised. Sub-groups under the technical working group went through a series of draft presentations to tighten all loose ends in the climate change policy. Informants mentioned that after the final draft was agreed upon, the ministerial endorsement was then sorted before the official launch of the national climate policy was carried out. The ministerial endorsement and policy launch phase brought the final climate change policy into the limelight for the awareness of the general populace.

5.3.3 Policy Implementation

The findings of the study point to the position that the policy implementation phase serves as the most actionable phase of the policy process, which comes after the formulation of the policy. Respondents mentioned that the policy sensitisation process forms a key point in any policy implementation process and precedes the implementation. Institutional arrangements for implementing climate change policy are set at the policy implementation stage with the idea of addressing the challenges posed by climate change. Informants averred that the implementation stage of the climate change policy process serves as the most effective stage by which respective agencies, departments and units of government and other stakeholders lock horns in bringing the policy intents into fruition.

Respondent revealed that in terms of institutional arrangement for climate change policy, the EPA coordinates the entire implementation process. However, some respondents also mentioned that certain key state agencies aside from the EPA and private actors assume a

varying degree of responsibility in the implementation of the NCCP of Ghana. Documentary information indicates that the implementation of the NCCP is under the supervision of thirteen (13) main Ministries of Government. These Ministries include MESTI, MoFA, MoE, Ministry of Gender, Children and Social Protection, Energy Ministry, Roads and Highways Ministry, MoH, Ministry of Lands and Natural Resources, the Local Government, Decentralisation and Rural Development Ministry, Communications Ministry, Ministry of Sanitation and Water Resources and the MoFEP with NDPC playing the planning role (National Climate Change Policy-Republic of Ghana, 2013).

A respondent from NDPC explained the institutional arrangement of the NCCP implementation as follows:

The NCCP implementation process has continually gained momentum since 2013 after the official policy formulation. The EPA, CSIR, Ghana Atomic Energy Commission (GAEC), FC, COCOBOD, the Town and Country Planning, NADMO and all the various MMDAs continue to spearhead the implementation of the climate change policy [Field work data transcript: No.020].

All the various MDAs have numerous responsibilities and the respondents indicated that the EPA and the main implementing agency for climate change initiatives ratified in Ghana are the UNFCCC initiatives and Kyoto protocol through a dedicated climate change desk. The responsibility of the desk is to coordinate all the established climate change teams and technical working groups towards facilitating climate change interventions. Respondents stated that aside from the leading role assumed by the state agencies, the presence of key players in the third sector could never be overemphasised. The third sector which houses

international, national and local NGOs, CSOs and think tanks are directly involved in the various stages of climate change policy implementation.

A respondent from Conservation Alliance hinted that:

NGOs and CSOs continue to play a very active role in the implementation of Ghana's climate change initiatives. Their roles usually include advocacy on climate change initiatives, community sensitisation, education and research on vulnerabilities of climate change within the local communities and at the country level. The World Bank, DFID, the Netherlands' Embassy, EU and the French Development Agency have shown a strong commitment to implementing climate change initiatives by partnering with the Ghanaian government on the Natural Resources and Environmental Governance (NREG) framework. The private sector also plays various roles in funding climate change initiatives [Field work data transcript: No. 021].

Some respondents are of the view that although a broader institutional outlook enhances participation in climate change initiatives, Ghana's climate change policy implementation appears to be dispersed among numerous institutions with difficulties inherent in its coordination. Notwithstanding the poor coordination of climate change initiatives, respondents further cited poor financing mechanisms and the evidence of superstition among rural communities as major challenges militating against the smooth implementation of climate change initiatives. Some respondents were also of the view that climate change policies also have action plans, which categorically set straight timelines detailing a sequential implementation of the initiatives

5.3.4 Policy Monitoring and Evaluation

Some respondents stated that effective implementation of climate change policies is contingent on prudent monitoring and evaluation systems. The idea is that policy monitoring and evaluation allow for tracking and monitoring of progress at every stage of

the implementation process. Informants indicated that efficient implementation of climate change initiatives is experiential and underpinned by periodic assessments based on the experiences of the policy implementation process.

A respondent from the EPA mentioned that:

Overall, some form of monitoring and evaluation of the various climate change interventions occur routinely. However, whether these reports feed into the ongoing implementation scheme or not is another matter. I think there must be a more strategic approach towards monitoring and evaluation of the various climate change policies to engender prudent implementation of the policies [Field work data transcript: No. 022].

Further probing shows that the monitoring and evaluation framework that exists so far is in response to several laid down rules, within various international protocols that concern Ghana's climate change implementation policies. Respondents revealed that the monitoring and evaluation of climate change interventions brought to the fore the second, third and recent fourth National Communication on climate change to the UNFCCC as consistent with the nationally agreed convention on climate change communication. In much the same way, some respondents intimated that monitoring and evaluation of climate change policies in Ghana assisted in the formulation of the updated nationally determined contribution to the international supervisory body (UNFCCC). Some respondents even mentioned that monitoring and evaluation are fundamental to the sustainable development of Ghana's climate change concerns. It highlights the experiences gained so far on climate change implementation and the need for a concerted effort towards reducing its impacts and vulnerabilities.

An informant from Rise Ghana mentioned as follows:

Effective implementation of climate change policies hinges greatly on its inherent monitoring and evaluation systems. Let us be categorical here, no public policy has ever succeeded to deliver sustainable gains to targeted communities and persons without its monitoring and evaluation tools being effective [Field work data transcript: No. 023].

Monitoring and evaluation provide sound footings and evidence for the climate change policy initiatives to succeed as it benchmarks achievements and policy implementation processes with the main objectives of the policy. Informants stated that this makes monitoring and evaluation of climate change policies a crucial step to undertake. For instance, lessons learnt from current and previous climate change policies through monitoring and evaluation sets the tone for future policy designs.

5.4 Climate Change Policy Process and the Evidence of Stakeholder Engagement

Considering the entire policy process, some respondents summed up that the cyclical process of conducting climate change policies which is termed a structural model tends to be complex but beneficial for the strategic implementation of climate change initiatives. This structural model as highlighted above starts from the problem-framing phase and continues to the policy formulation before getting to the policy implementation and ends with policy evaluation and monitoring.

A member of the Parliamentary Select Committee on Agriculture and Cocoa Affairs mentioned as follows:

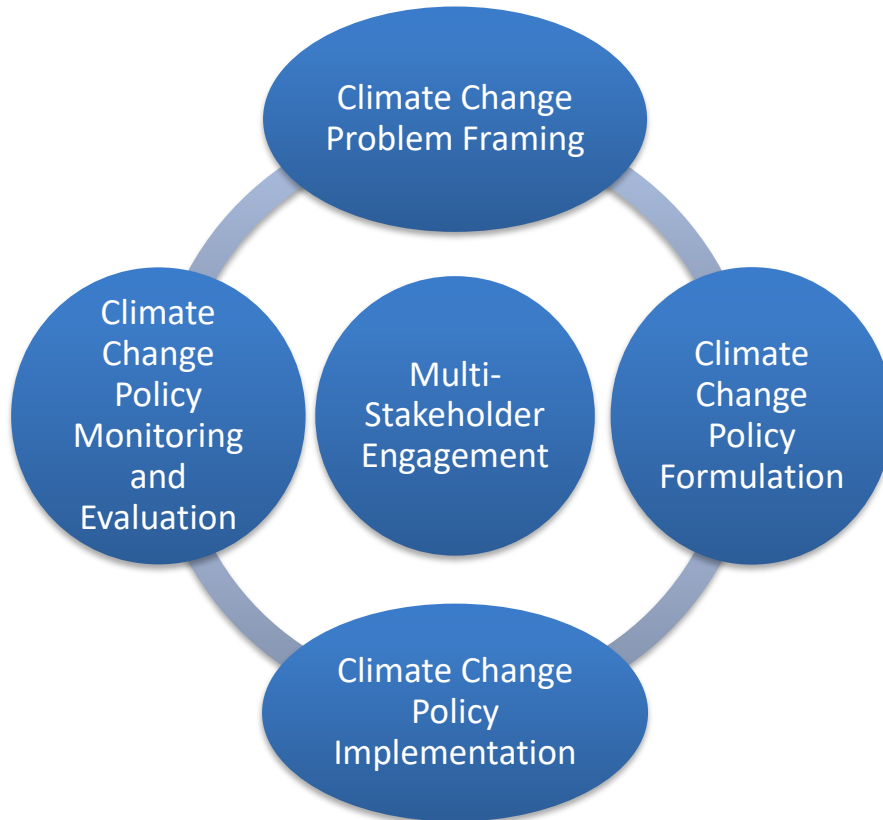
The policy process governing climate change policies in Ghana so far appears to be full of complexities, involves various degrees of interest due to its interactive nature, overlaps in terms of sectoral functions, and has interdependencies. It is however understandable because every public policy is targeted at achieving general good for the citizenry. Stakeholders must therefore apply themselves to the entire process [Field work data transcript: No. 024].

What appears to be clear throughout the policy process was the presence and centrality of stakeholder consultation and integration in the management of climate change policies in Ghana. Some respondents hold the view that climate change is a complex global crisis with varying degrees of interest hence the active involvement of key stakeholders at each stage of the policy process. A key informant from Mondelez Int Cocoa Life was clear by stating as follows:

A stakeholder is the common denominator in the climate change policy process. Virtually every stage of the process starting from identification of the problem, policy formulation, policy implementation and policy monitoring and evaluation has stakeholder engagement at the centre. That is, the centrality of stakeholder consultation and engagement is clear in Ghana's climate change policy process. These stakeholder groups range from state actors to private sector players to players within the third sector such as NGOs and CSOs [Field work data transcript: No. 027].

Figure 5.1 details the climate change policy process and highlights the centrality of stakeholder involvement in the various stages of the policy process.

Figure 5.1 Cycle of Climate Change Policy Process



Source: Field data, 2022

5.5 Implementation of Climate Change Initiatives and the Presence of External Funding

Effective implementation of climate change policies hinges on the provision of financial resources earmarked for the realisation of various deliverables enshrined in the policy documents. The findings of the study show that implementation of climate change concerns in Ghana tends to attract extensive external funding despite the visible national budget allocations. Documentary updates from the World Climate Fund dashboard indicate that an amount of two hundred and three (USD 203) million dollars has been approved for Ghana so far towards the management of climate change concerns. Respondents indicated that in terms of national-level financial commitments, funding strategies for climate change initiatives are not traceable to a single source. Rather, these funding sources appear to be distributed amongst the various institutions charged with several climate change adaptation and mitigation mandates.

A respondent from MESTI explained this as follows:

In my view, there exist some form of the financing strategy for climate change initiatives as highlighted in the NCCP, NCCAS and the various policy documents. As it stands, the various relevant institutions such as the MESTI, EPA, Forestry Commission, COCOBOD and various MDAs and MMDAs receive a financial allocation to manage climate change issues [Field work data transcript: No. 025].

Respondents indicated that aside from the national budgetary allocation towards climate change concerns, local businesses and non-governmental organisations with a focus on climate change initiatives, also, have some financing strategies for climate change initiatives. However, most of these financial allocations are channelled through the Corporate Social Responsibility (CSR) framework of their organisations.

A Key Informant from Cargill Ghana Ltd further explained this as follows:

Large manufacturing businesses and mining corporations whose operations have dire consequences on the environment also allocate some funds towards green growth and low carbon emission. Usually, these corporate organisations use dedicated funds through their CSR and sustainability funds to respond to the harm they cause to the environment as per their business operations [Fieldwork data transcript: No. 026].

Additional probing revealed that strategic budgetary provisions are very vital towards building climate resilience in Ghana. Informants mentioned that access to external funding appears to be very common in the management of climate change, considering the global nature of the climate change crisis. The table below presents a synthesis of some climate change funding from external sources, their targeted projects and the amounts approved for each initiative.

Table 5. 3 Some External Sources of Climate Change Initiatives in Ghana

S/N	Funding source	Targeted project	Amount Approved (USD million)
1	World Bank	Sustainable rural water and sanitation additional funding	45.7
2	World Bank	Second additional financing for sustainable land and water management project	12.8
3	Global Environment Facility (GEF6)	Enabling the Preparation of Ghana's Fourth National Communication and Second Biennial Update Report to UNFCCC	0.85
4	World Bank (contribution by Netherlands and DANIDA)	Ghana Climate Innovation Centre	17.2
5	Forest Investment Program (FIP)	Dedicated Grant Mechanisms	6.0
6	Forest Investment Program (FIP)	Public-private partnership for the restoration of degraded forest reserve	10
7	Adaptation Fund (AF)	Increased resilience to climate change in Northern Ghana through the management of water resources and diversification of livelihoods.	8.3
8	Preparation Grant for Program Planning	Scaling-Up Renewable Energy Program for Low Income Countries (SREP)	1.51
9	Forest Investment Program (FIP)	Reducing Degradation and Deforestation due to Mining in Forest Landscapes	10.2
10	World Bank	Sustainable land and water management	8.6
11	Forest Investment Program (FIP)	Enhancing Natural Forest and Agroforestry landscapes Project	30
12	Adaptation for Smallholder Agriculture Programme (ASAP)	Ghana Agricultural Sector Investment	10
13	Global Environment Facility (GEF5)	Preparation of Ghana's Initial Biennial Update Report to UNFCCC	0.4
14	Forest Investment Program (FIP)	Engaging Local Communities in REDD+/ Enhancement of Carbon Stocks	10

Source: Field Report, 2022

5.6 Existing Climate Change Policies in Ghana's Cocoa Sector

The study sought to investigate the cocoa sector-specific climate change policies that have been mainstreamed to make cocoa production ecologically friendly. The findings of the study show that climate change initiatives within the cocoa sector of Ghana remain a necessary condition considering the reduction in cocoa production by about 30% due to changes in climatic conditions. Respondents indicated that poor cocoa tree management, ageing of cocoa trees, and drought among others continue to deepen the woes of Ghana's cocoa production system. According to informants, the need for climate change policies within the cocoa sector is to engender climate-smart cocoa through adaptation and mitigation measures. The study shows that the main climate change governance constraints within Ghana's cocoa cultivation system include the sudden shift towards agrochemical application, deforestation, difficulties in determining the required tree shade for the cocoa plants and the non-existence of proper irrigation facilities for cocoa trees.

Respondents mentioned that the main cocoa sector climate change initiatives used in governing climate change concerns are the Ghana Cocoa Forest REDD+ Programme (GCFRP) with other initiatives such as Cocoa Rehabilitation and Intensification Programme, Cocoa and Forests Initiative Joint Framework for Action, Planting of shade-giving trees for shades for cocoa plants carefully aligned to the strategies of the GCFRP. The study also revealed that other national policies and initiatives such as the GSGDA I and II, the National Forest Wildlife Policy, the NCCP, the National Climate-Smart Agriculture and Food Security Action Plan, the Ghana Cocoa and Forest Initiative National Implementation Plan, Ghana Forest Investment Programme, Low Emission Development Strategy are aligned to some extent with the GCFRP.

An informant from MLNR mentioned the essence of this strategic policy alignment as follows:

To ensure the maximization of the government's efforts and to reduce duplication of policies and initiatives, the main cocoa sector climate change initiative, which is the GCFRP, is well aligned with all relevant and existing climate change initiatives in Ghana. The ultimate aim is for deforestation reduction, protection of Ghana's ecosystem, enhance afforestation and enhanced sustainable and climate-smart cocoa production [Field work data transcript: No. 028].

5.6.1 Ghana Cocoa Forest REDD+ Programme (GCFRP)

The Ghana Cocoa Forest REDD+ Programme (GCFRP) as implemented by the FC in collaboration with other key stakeholders is one of the key climate change initiatives targeting climate-smart cocoa production in Ghana. The study indicates that the GCFRP is anchored on the objectives of the Ghana REDD+ Strategy with a win-win approach for both the Ghana cocoa sector and the forestry sub-sector. Informants were of the view that deforestation and degradation of cocoa lands which is driven by illegal logging, agriculture expansion, cocoa expansion and illegal mining continue to hamper cocoa productivity in Ghana. Documentary evidence shows that the GCFRP has been formulated amidst the urgency of reducing GHG emissions from the extension of cocoa farms into forest zones and the logging of trees for cocoa production purposes (Ghana REDD+ Strategy, 2016 p.5). By reducing illegal logging, agriculture expansion, cocoa expansion and illegal mining, the GCFRP stands to protect and restore Ghana's forest cover to engender a sustainable and resilient climate within the cocoa sector.

An informant from FC mentioned the main building blocks of the GCFRP implementation plan as follows:

The Ghana Cocoa Forest REDD+ Programme has been set up to ensure mitigation and adaptation of climate within the cocoa sector through prudent institutional coordination, landscape planning, implementation of climate-smart-cocoa and sustainability among others. The essence of the initiative is to combat the main drivers of carbon emissions such as illegal logging, agriculture expansion, cocoa expansion and illegal mining [Field work data transcript: No. 029].

Probing revealed that the GCFRP enjoys broader commitment in its implementation considering the adverse effects caused by carbon emission on cocoa productivity. Informants highlighted that the Government of Ghana (GoG) through the Ministry of Lands and Natural Resources (MLNR), Ghana COCOBOD and the Forestry Commission together with the global chocolate industry through players such as the World Cocoa Foundation, IDH, and private sector actors like Touton S.A, Solidaridad, Nature Conservation Research Centre, Mondelez among others continue to show commitment towards reducing carbon emission in the cocoa sector. Some respondents mentioned that the initiative so far has a very prudent measurement, monitoring and reporting system as required in sustainable climate change governance.

The study shows that for instance there is a Standard Operating Procedure (SOP), an institutional framework set for monitoring, a rigorous reforestation initiative and a national coordination system for climate change management in cocoa.

A respondent from COCOBOD put this into perspective as follows:

The Pest Management Framework, the Re-settlement Policy Framework and the Gender Action Plan as captured in the GCFRP addresses the insurgency

of pest and diseases in cocoa farms, involuntary resettlement of farmers living in forest reserves that has encroachment issues as well as addressing gender issues in cocoa production. So far about 226,000 hectares of the depleted reserve have been restored through the GCFRP with more prospects for more gains in the future [Field work data transcript: No. 030].

Respondents believed that the GCFRP enjoyed strong stakeholder engagement in the formulation and implementation of the policy. As revealed by the study, there were more than 34 stakeholder meetings and workshop meetings organised among over 40 institutions in the policy formulation stage alone with more stakeholder engagement in the implementation process. The study indicates that through the climate change Directorate under the purview of Ghana's Forest Commission, a routine national consultative workshop, oversight committee meetings, steering committee engagements, and technical working group meetings continue to be organised on various counts to enhance the attainment of the forest REDD+ initiative. Documentary evidence revealed that the Ghana Cocoa Forest REDD+ Programme (GCFRP), which targets improvement in cocoa yield through afforestation and reduction of forests for cocoa production purposes, enjoys strong expert and institutional consultation throughout the entire process.

5.7 Chapter Conclusion

Climate change in Ghana's cocoa sector is no more an abstract endeavour, but real and lived for most of the cocoa-growing communities. Therefore, the correct mix of public policies across sectors and levels is needed to remedy the already worsened climate situation in Ghana. This chapter of the study is dedicated to examining the governance of climate change policies. The chapter has presented the main climate change policies in Ghana, procedures and processes followed through for the enactment, formulation and

adoption of these policies and how the implementation is carried out. It is evident from the empirical findings that Ghana can boast of an increased presence of climate change-related policy interventions and existing institutional frameworks established to champion the implementation process of major priorities and objectives of the government.

The chapter reveals and presents findings on climate change policies such as the Coordinated Programme of Economic and Social Development Policy, Reducing Emissions from Deforestation and Forest Degradation Strategy (REED+), Ghana's Fourth National Communication to the United Nations Framework Convention on Climate Change and Ghana's Intended Nationally Determined Contribution. Also, the Ghana National Climate Change Policy, the National Climate Change Adaptation Strategy (NCCAS), the National Action Program to Combat Drought Desertification and the UNFCCC Initial National Communication on climate change were all existing national climate change policies in Ghana, as revealed by the findings of the chapter. This chapter further interrogated and presented findings on the processes of climate change policy development in Ghana and further investigates how international climate conventions and commitments shape the policy formulation and implementation regime in Ghana.

The findings of the study highlight that although normal policy processes prevail for all public policies, the policy enactment processes for climate change appear to benefit from broad ratifications and domestication of international climate consensus, considering the global nature of the climate crisis. However, the process of developing climate change policy just as in the case of all public policies goes through the usual policy process, which includes problem framing, policy formulation, policy implementation and monitoring and evaluation. The chapter shows that broad stakeholder engagement is at the core of the

policy formulation and implementation process. The chapter highlights that the main cocoa sector climate change initiatives used in governing climate change concerns are the Ghana Cocoa Forest REDD+ Programme (GCFRP) with other initiatives such as the Cocoa Rehabilitation and Intensification Programme, Cocoa and Forests Initiative Joint Framework for Action, Planting of shade-giving trees for shades for cocoa plants carefully aligned to the strategies of the GCFRP.

CHAPTER SIX

STAKEHOLDER INTEGRATION AND THE UNDERPINNING FORCES

6.0 Introduction

This second empirical Chapter [Six] addresses both the second research objective and question, which, aims at assessing the nuances inherent in stakeholder integration and how stakeholder networks shape the governance of climate change policy in Ghana's cocoa sector. Climate change has been described as a 'wicked problem par excellence' due to the interconnected nature of the climate issue and the impact it exudes on humanity and economies. In Ghana's cocoa sector, climate horror is no more an abstract endeavour, but real and lived for most of the cocoa-growing communities. Managing this complex, unstructured and highly complicated global crisis demands requisite governance and policy capacity which pays close attention to stakeholders and institutions. Similarly, there is a pressing need, currently, more than ever, to break the 'business-as-usual' governance approach and adopt a more sustainable and integrative approach.

This also calls for comprehensive and strategic sectoral coordination and a complex interrelation among critical stakeholders at all levels. Such systematic and elaborate climate change governance processes and stakeholder integration approaches produce environmental soundness and sustainable development. This also serves as a recipe for minimising the risk associated with climate change as well as maximising the net benefit. Specifically, broad and multi-sectorial stakeholder integration remains critical for reduced

deforestation, positive carbon growth, as well as minimised degradation within all sectors of the Ghanaian cocoa sector. In effect, governance of climate change policies hinges on comprehensive and coherent stakeholder and institutional provisions which range from the public sector, private/business sector and the third sector as well as, community-based informal institutions (such as traditional rulers, religious groups, community activists and cocoa farmers associations). Governance in general requires strategic sectoral coordination and a complex interrelation among critical stakeholders at all levels.

Targeting and consulting key stakeholders is essential for sustainable biodiversity conservation and reduced climate shocks. The consultative process of key stakeholders was through workshops, training sessions, capacity building, meetings and sensitisation exercises. The chapter is made up of two parts. The first part of the chapter is dedicated towards themes/subthemes bothering the integrations of Public Sector stakeholders (Section 6.1), Private or Business Sector Stakeholder integration (Section 6.2) and the involvement of the Third Sector Stakeholders (Section 6.3). The involvement of other Community-based informal actors (Section 6.4) is equally presented in this chapter. The second part of the chapter presents findings on the underpinning forces driving the involvement of various stakeholders in the governance of climate change policies in cocoa (Section 6.5).

6.1 Integration of Public Stakeholders in the Governance of Cocoa Sector Climate Change Policies

The multitude of nature of climate change impact and its effect on diverse numerous actors tend to explain the urgency for cooperation across the policy processes. Public sector

organisations, as established by existing legal instruments tend to be clothed with regulatory, supervisory and monitoring powers in the exercise of their constitutional duties. This section of the study, therefore, sought to explore the main public sector actors/stakeholders, involved in the governance of Ghana's cocoa sector climate change policies and their role in the approach towards climate change management. In this regard, the findings of the study, reveal that public sector institutions play a leading role in all facets of the cocoa sector climate change management approach. Respondents indicated the involvement of MDAs and MMDAs across various stages of climate change governance processes.

The study further cited public sector stakeholders such as MLNR, MESTI, MoFA, MoFEP, EPA, Ghana COCOBOD, Minerals Commission, Forestry Commission, Cocoa Research Institute of Ghana (CRIG), and Forestry Research Institute of Ghana (FORIG), as the main state organisations that have been widely involved in the governance of climate change policies in Ghana's cocoa sector.

A respondent from the FC reveal as follows:

The main state actors/stakeholders involved in the governance of Ghana's cocoa sector climate change policies include the MLNR, MESTI, MoFA, MoFEP, EPA, Ghana COCOBOD, Minerals Commission, Forestry Commission, Cocoa Research Institute of Ghana (CRIG) and Forestry Research Institute of Ghana (FORIG). These stakeholders were consulted through workshops, training sessions, capacity building, meetings and sensitization exercises [Field work data transcript: No. 031].

The study further examined the roles and functions of these stakeholders in the governance of climate change policies in Ghana's cocoa sector. The following section (sections 6.1.1

to sections 6.1.10) presents the roles and functions of the various public sector actors involved in the governance of climate change policies in the cocoa sector.

6.1.1 Ministry of Lands and Natural Resources (MLNR)

Based on the findings of the study, MLNR, as established by Section 11 of the Civil Service Law (PNDCL 327 of 1993), has the responsibility under the relevant laws, to streamline measures that ensure sustainable management of the natural resources base on the country. The findings of the study show that MLNR remains the sector ministry, responsible for leading policy frameworks on land resources, wildlife potentials of Ghana and forest resources in Ghana. Within the governance framework for climate change issues in the cocoa sector, respondents observed that the Forestry Commission reports to the MLNR on deforestation issues, carbon growth issues and degradation issues within the cocoa sector for relevant policies to be formulated. The findings of the study equally show that MLNR is also responsible for Ghana's Forest Investment Programme (FIP) and serves on the programme's Coordination and Management Committee to ensure integration and synergy with FIP projects and related activities, which have far-reaching implications for cocoa production.

A respondent from the MLNR reveal the following:

The MLNR has the constitutional mandate to formulate the requisite policies geared towards efficient lands, effective wildlife conservation as well as, and all forest resources. In the nation's pursuit against climate change management, the MLNR leads and provides policy directions on the most pragmatic ways towards ensuring forest development, reduced levels of deforestation within the cocoa zones and reduced GHG emission in cocoa areas. The MLNR achieves this by coordinating, managing and implementing

programmes on climate-smart cocoa in Ghana, together with other state and non-state actors [Field work data transcript: No. 032].

6.1.2 Ministry of Environment, Science and Technology (MESTI)

Respondents observed that MESTI is the sector Ministry with the responsibility to formulate, develop, implement, monitor and evaluate environmental policies in Ghana, including the National Climate Change Policy, and the National Climate Change Adaptation Strategy. MESTI has a seat on the National REDD+ Working Group (NRWG) and is a key partner in all aspects of REDD+ strategies. Evidence shows that MESTI also liaises with the UNFCCC on climate change shocks and progress through the EPA.

A respondent from MESTI observed the role of MESTI in the governance of climate change policies in Ghana's cocoa sector and had this to say.

As the focal Ministry on climate change management issues, the MESTI partners with other state and non-state actors in the formulation of key and broad national climate change policies. Regarding the specific climate change policies in the cocoa sector, the MESTI supports the governance of climate change policies in the cocoa sector, together with the other core institutions on GCRRP [Field work data transcript: No. 033].

6.1.3 Ministry of Food and Agriculture (MoFA)

Based on the findings of the study, the MoFA, to whom the Ghana COCOBOD reports, is represented on the National REDD+ Working Group (NRWG). Respondents mentioned that the MoFA is responsible for ensuring that extension services and interventions related to food and cash crops including oil palm and citrus, align perfectly with the goals of Ghana's Cocoa Forest REDD+ Programme. As such, the MoFA plays an integral role in the implementation of the GCFRP.

A respondent from MoFA reveals the roles and functions of MoFA in this manner:

The MoFA, per the legal provision, plays a central role in terms of ensuring sustainable agricultural practices, by partnering with other relevant stakeholders through the provision of sustainable extension services and other related interventions. MoFA equally leads policy propositions on climate-smart strategies with Ghana's cocoa sector and supervises the implementation of relevant cocoa sector climate-smart practices [Field work data transcript: No. 034].

6.1.4 Ministry of Finance and Economic Planning (MoFEP)

The study reveals that the MoFEP, clothed with the authority to sign economic agreements with external entities, tend to play a critical role in negotiating and managing climate change-related funds. The study shows that until 2017, MoFEP was the mother ministry to which the Ghana Cocoa Board reported all cocoa-related concerns. The findings highlighted MoFEP's role as the Chair of the Technical Coordinating Committee-Plus (TCC+), which oversees the Natural Resource and Environmental Governance programme that is linked to the REDD+. Some respondents noted that MoFEP plays a vital role as being responsible for the high-level financial administration of the Natural Resource and Environmental Governance programme and most climate change funds provided to Ghana.

6.1.5 Forestry Commission of Ghana (FC)

Responses from the study highlight that the FC, is the public organisation, mandated under law to handle Ghana's pursuit of sustainable management of forest and wildlife resources in the country. Some respondents reveal that the Climate Change Unit under the FC has been formed since 2007, to oversee the management of forestry-sector plans regarding mitigation and adaptation measures for climate change, including the REDD+ strategy. The

MLNR serves as the sector ministry with a supervisory mandate over the FC. The majority of respondents noted that the FC serves as the host agency for the National REDD+ Secretariat and coordinates efforts on Ghana's REDD+ process. Respondents added that the FC equally partners with the Ghana COCOBOD, on coordinating the design and implementation of the Ghana Cocoa Forest REDD+ Programme with other state and non-state actors. The study emphasised that collaboration between the FC and the COCOBOD represents a novelty since the two agencies had never joined forces in implementing an initiative. This brings home the central argument that environmental sustainability, through decreased forestland degradation and a reduction in deforestation in cocoa zones remains essential.

A respondent from FC elaborated on the roles and functions of the FC as follows:

The FC resides under the MLNR and is responsible for the management of Ghana's forest estates together with other key stakeholders. Regarding the management of cocoa sector climate change policies, both the FC and the COCOBOD as public institutions established by law coordinate the GCFRP through the established National secretariat under the remits of the FC. The two institutions are part of the National REDD+ Working Group, which serves as the principal decision-making body on Ghana's REDD+ process [Field work data transcript: No. 035].

Further probing reveals that the FC, through a partnership with other players such as the COCOBOD, Rainforest Alliance, Olam and others, continue to mainstream numerous measures that afford cocoa trees the right avenue to become resilient to the prevailing climate shocks, emanating from temperature changes and soil moisture reduction. According to key informants, the integration of the FC in the governance of climate change in cocoa can be summed below:

The FC is involved, due to the coordination role it plays regarding the implementation of afforestation measures, and conservation duties through the enforcement of illegal logging laws and forest fire punishments. The FC equally supplies tree-planting materials; provides on-farm tree management and related climate-smart cocoa interventions, as well as control and manage rights in on/off-reserve forest. The FC undertakes training for selected security services and judiciary in processing and prosecution of deforestation and forest degradation-related offences and infractions. They also liaise with relevant actors in the fight against illegal mining within cocoa areas and protected areas [Field work data transcript: No.036].

6.1.6 Ghana Cocoa Board (COCOBOD)

According to the findings of the study, the Ghana COCOBOD under the remits of the MoFA, co-chairs Ghana's efforts towards reducing deforestation, land degradation and GHG emission. The findings of the study show that the COCOBOD plays a critical role as one of the main players managing the production of climate-smart cocoa through relevant government strategies and plans. Some respondents were of the view that the COCOBOD serves as the main government institution, responsible for the regulation and management of the cocoa sector. Cocoa Board serves as the co-chair with the Forestry Commission on the coordination and management committee, constituted to lead the design and implementation of the GCFRP, with an active partnership with other state and non-state actors.

A respondent from COCOBOD emphasised the role of the COCOBOD in the consultative approach towards climate-smart cocoa along these lines:

The COCOBOD has over the years, played critical roles in the pursuit of reduced climate change menace in the cocoa sector. For instance, the COCOBOD provides constant cocoa extension services to farmers through dedicated staff at the various farm gates. Together with the FC, various interventions have been mainstreamed to reduce the impact of deforestation

in cocoa areas through the expansion of cocoa farms to forest reserves. The COCOBOD through relevant agencies continues to provide improved seedlings for farmers, to reduce the temptation of clearing more forest reserves for cocoa production [Field work data transcript: No. 037].

Extensive probing reveals that the COCOBOD, through consultation and comprehensive stakeholder engagement with the cocoa farmers association and other actors, are undertaking the nursery of over 50 million improved cocoa seedlings to be distributed freely to identified cocoa farmers. Some respondents mentioned that aside from free seedlings, chemicals and fertilisers are also distributed to farmers freely. However, it is unclear how equitable these free machinery, pesticides, seedlings and fertilisers get shared among the most needed farmers.

A respondent from Kuapa Cocoa Farmers' Cooperative Union emphasised the challenges associated with the COCOBOD free input distribution:

There is evidence that COCOBOD distributes inputs such as pesticides, weedicides, fertilisers and machinery to farmers. The difficulties associated with the distribution of free inputs are that equity has always been a problem. These inputs do not get to those farmers who need them most. The worse form is that some farmers even end up selling them cheaply to other farmers. This is very bad considering the reduction in farm yields due to climate change [Field work data transcript: No. 038].

In response to what COCOBOD has achieved in reducing emissions and contributing to sustainable cocoa production, respondents mentioned that COCOBOD has engaged with farmers in capacity-building programmes by using community extension agents. The staff of the COCOBOD have also been trained on the ERP and REDD+, in addition, staff of the FC and the COCOBOD work together to help reduce emissions and deforestation in cocoa growing areas. Key informants affirmed the COCOBOD's role in the integration of key stakeholders in the governance of climate change policies in cocoa, to co-coordinate the

implementation of REDD+ intervention in Ghana's cocoa, train and supervise farmers on Climate Smart Cocoa initiatives among others.

6.1.7 Environmental Protection Agency (EPA)

The study found that the EPA plays a very significant role in the governance of climate change policies in Ghana. According to respondents, the EPA, as housed under the remit of MESTI, is the National Focal Point for Climate Change issues in Ghana and serves as the main liaison between Ghana and the UNFCCC on climate change shocks and initiatives of the government. As part of the international reporting roles, the EPA leads Ghana's National Communication efforts with the UNFCCC. Respondents mentioned that the EPA partners with other key stakeholders, to ensure that the climate change programme's accounting is reflected in the national accounting platform. The findings of the study, again indicate that the EPA serve as the host to Ghana's Climate Change Data Hub, which supports the smooth elements of data management and registry. Some respondents revealed that the EPA, together with other key players, continue to discover sustainable pathways needed for building a green economy through strategic investments in the various sectors of the Ghanaian economy.

A respondent from the EPA emphasised the role of the EPA in the governance of climate change policies:

The EPA has clear evidence of extensive partnership with the Environment Programme of the UN (UNEP), UNDP and the UNFCCC such that all international reporting to the UNFCCC is led by the EPA. For instance, the EPA partnered with the UNEP and UNDP to secure funding from the Ministry of Foreign Affairs of Denmark for the implementation of the NCCAS, which spanned between 2010 and 2020. The essence of the partnership between EPA and all stakeholders is to ensure reduced carbon

*growth and adaptation to climate change menace including the cocoa sector
[Field work data transcript: No. 039].*

6.1.8 Other State Agencies Involved in the Governance of Climate Change Policies in Cocoa

The study identified that aside from the main state agencies indicated above (Section 6.1.1-Section 6.1.7), other state agencies were involved in the governance of climate change policies such as the Minerals Commission (MC), Forestry Research Institute of Ghana (FORIG), Cocoa Research Institute of Ghana (CRIG), MLRDRD, MoEn, among others. According to respondents, the MC, as a government agency is tasked to regulate and manage the mineral resources existent in Ghana, and report to the MLNR for further policy direction. The MC's involvement in the governance of climate change policies in Ghana's cocoa sector is to regulate and reduce the already increasing rate of illegal mining within Ghana's cocoa sector plantations. Respondents mentioned that the involvement of the MC and the COCOBOD, together with other stakeholders have been necessitated by the insurgence of illegal mining activities in Ghana's cocoa farms.

The MC, COCOBOD and other stakeholders are needed to crack down on such activities as it causes deforestation and land degradation within reserved farms and forestlands. The study observed the involvement of state research institutions in the governance of climate change policies in Ghana's cocoa sector. Respondents cited FORIG as one of the main research institutions supporting climate change management with pragmatic research outputs. According to respondents, FORIG is a research institute, which falls under the purview of the Council for Scientific and Industrial Research (CSIR) and has the mandate of conducting forest research and research on forest-related products. Regarding cocoa

sector climate change management, respondents cited that FORIG provides advice to the JCC on climate change initiatives and provides technical guidance on the sustainable implementation of climate change research output.

Some respondents observed that FORIG provides expert guidance, through field activities and the development of appropriate systems for the success of the GCFRP. In much the same way, respondents mentioned CRIG as another centre of excellence under the purview of the Ghana Cocoa Board, responsible for cost-effective, sustainable, and environmentally friendly cocoa-related technologies. According to respondents, CRIG forms an integral part of the smart cocoa agenda in Ghana, by advising and informing the COCOBOD and all strategic stakeholders on matters relating to cocoa production, as well as other mandate crops. These stakeholders were consulted through workshops, training sessions, capacity building, meetings and sensitisation exercises. The study also highlights the consultation with the Parliamentary Select Committee on Lands and Forestry on Ghana's cocoa sector climate change concerns, as a positive step towards involving all key stakeholders in the governance framework.

6.2 Integration of Private or Business Sector Stakeholders in the Governance of Cocoa Sector Climate Change Policies

Attention to climate change shocks has heightened after the Paris-CoP-21, hence, necessitating cross-sectoral partnership and comprehensive stakeholder involvement from all sectors of the global economy. Aside from state agencies, the study indicates that private sector contributions towards managing climate change issues in the cocoa sector have been evident. The findings of the study suggest that industry players within the chocolate and

cocoa-processing sector continue to reiterate their commitment towards reducing deforestation, GHG emission in cocoa zones and cocoa land degradation. The findings of the study show that private sector participation in the reduction of forestland degradation and deforestation within cocoa has been heightened after the 2010 Rainforest Project and the introduction of the GCFRP in Ghana's cocoa sector.

According to respondents, numerous private sector players continue to participate in the governance of climate change policies in Ghana's cocoa sector. These private sector players range from cocoa processors, chocolate-producing companies, licensed buying companies' players within the timber industry, plantation companies, tree crop estates, and agricultural extension service actors, among others.

A key informant from Olam, specifically pointed out the private businesses involved in the management of climate change shocks in cocoa growing zones as follows:

The main private sector organisations integrated into the governance of climate change governance process include Olam, Touton, Mondelez Int Cocoa Life, Federated Commodities, BD Associates Cocoa Merchants Ghana Ltd, Hamilton Resources and Consulting, Portal Forest Estate and CPC. Also, Kuman Koman Company, Armajaro/Ecom, Barry Callebant Co. Ltd, Unicom Co. Ghana Ltd, Cargill Ghana Ltd, PBC and Kuapa Kokoo Ltd, formed a critical part of the governance of the climate change in Ghana's cocoa sector [Field work data transcript: NO. 040].

Regarding the extent to which various climate change programmes attract private sector participation, the study shows that the GCFRP and other initiatives are designed in a way to leverage the support from the private sector in implementing these initiatives. Key informants affirmed the role of private actors by indicating that various private licensed

buyers have introduced comprehensive climate-smart cocoa interventions that seek to enhance the sustainable production of cocoa in Ghana.

A respondent from a private LBC, Touton stated the integration of private actors in the pursuit of climate change governance in Ghana's cocoa as follows:

Private cocoa bean trading companies, private chocolate companies, private LBCs, and other private actors such as Touton, Mondelez International, Armajaro Ghana or Ecom and Olam, continue to partner with government and other players in the management of climate change concerns in cocoa. For instance, Touton has started to implement the first comprehensive CSC programme for cocoa farms in Ghana. Mondelēz International is also supporting cocoa sustainability initiatives on the ground with cocoa farmers and cocoa farming communities. Likewise, Olam is currently funding and engaged in multiple projects with cocoa farmers including certification, farmer business schools and farmer data management. The rationale for private sector integration into this climate change policy governance is to tap into the relative strength and expertise of the private sector to engender sustainable cocoa production in Ghana [Field work data transcript: N0. 041].

Further probing reveals that aside from these private stakeholders, other private actors continue to collaborate with the government in the pursuit of a resilient cocoa sector. Some respondents confirmed that the Sustainability Trade Initiative (IDH) and The Prince's International Sustainability Unit (ISU), together with the government, are building on existing efforts to seek alignment and develop a joint framework of action for the sustainability of cocoa production in Ghana. The findings of this study affirmed that the overall goal of the climate-smart cocoa program and the integration of multiple actors is to increase private sector investment and engagement in climate-smart cocoa. According to some respondents, promoting sustainable cocoa production in Ghana thrives on the integration of multiple actors through knowledge sharing, resource pulling and adherence

to established laws and regulations. These private sector players were found to be either local private actors or international actors, with local presence focusing on the implementation of climate change adaptation and mitigation within Ghana's cocoa sector.

Regarding the interest and category of private actors involved in the governance of climate change policies in Ghana's cocoa sector, a key respondent from MESTI espoused that:

The private sector stakeholders who are involved in the governance of climate change policies in the cocoa sector are mainly private businesses, whose business development depends on the productivity of the cocoa sector. Their commitment has always been based on industry commitment, which is tied to the need to end deforestation and forest degradation within cocoa zones. They, therefore, partner with the government, development partners, other private sector players and third-sector actors, to introduce measures that are targeted at ending deforestation and forest degradation in cocoa areas [Field work data transcript: No: 042].

This study observed through key informant interviews that stakeholder engagement and participation throughout the formulation and implementation of climate change policies have been fundamental. In general, it is believed by respondents that private sector players are an integral part of the climate change governance process, due to the implications of deforestation and land degradation on the sustainability of their respective organisations. Respondents indicated that consultation sessions, workshops and high-level meetings were held for private sectors and all relevant actors throughout the process. This allowed for knowledge sharing and a thorough participatory process.

6.3 Integration of Third Sector stakeholders in the Governance of Cocoa Sector Climate Change Policies

Stakeholders within the third sector such as NGOs, CSOs, think tanks, non-profit organisations, value-driven organisations and others within the same umbrella, were identified as key players who were well integrated into the governance of climate change policies in Ghana's cocoa sector. The study intimated that key stakeholders within the third sector, tend to partner with the public sector and the profit-oriented sector players to ensure the smooth formulation and implementation of climate change initiatives. According to the study, specific third-sector organisations that have been vocal in the governance of climate change policies within the cocoa sector range from local, national and international.

A key respondent from Solidaridad West Africa enumerated the key third-sector players in the governance of climate change in Ghana's cocoa sector including the following:

The third sector actors integrated into the cocoa sector climate smart interventions include: Solidaridad West Africa, Rainforest Alliance, Nature Conservation Research Centre, Civic Response, A Rocha Ghana, Conservation Alliance, Agro Eco, Rise Ghana, GII, CAN Ghana, IITA, SNV and Forest Forum [Field work data transcript: No. 043].

Key informants affirmed that these key third-sector players were active in the governance of climate change policies by carrying out relevant research, engaging in public campaigns, as well as advocating for climate smart compliance within the cocoa value chain. For instance, Solidaridad West Africa has been instrumental by partnering with the COCOBOD and other actors through the government's initiative, towards replanting and rehabilitation old and unproductive cocoa farms. Respondent affirmed that the Nature Conservation Research Centre (NCRC) and the IUCN-Ghana, have been involved in the

implementation of the REDD+ interventions in Ghana, climate-smart cocoa, as well as the Community Resource Management Areas (CREMAs) interventions. Some respondents pointed out that third-sector actors such as the SNV, Aracha Ghana and the IITA, have over the years, been an integral part of the GCFRP initiatives with strong involvement in climate-smart cocoa interventions.

The central goal has been to reduce deforestation in cocoa zones and minimise land degradation. Some of these third-sector actors were cited as key actors in building strong human resource capacity, ensuring the use of new technologies, and adopting useful agroforestry systems that engender climate-smart cocoa.

6.4 Involvement of other Community-based Informal Actors in the Governance of Cocoa Sector Climate Change Policies

Community-based actors are usually seen as informal actors with varied climate change concerns. Key informants recounted the involvement of community-based informal actors who are usually not formalised in the governance process as critical. The findings of the study demonstrated the commitment of traditional authorities, community-based cocoa farmers' associations, religious rulers, youth groups and women's associations, in the bid to reduce deforestation and land degradation in cocoa-growing communities.

In this regard, the 2016 District Best Cocoa Farmer indicated the integration of traditional authorities in cocoa-growing areas by highlighting the following:

The integration of traditional rulers in the governance of climate change policies in Ghana's cocoa sector is visible. Traditional authorities continue to be the custodians of all farmlands in Ghana; hence, they provide the lands for individual and commercial farmers to enable their farms. They also assist

in conflict resolutions that emanate from illegal logging in cocoa farms. Traditional rulers also participate in disseminating information on climate change and the need to reduce bad farming practices in cocoa farms [Field work data transcript: No.044].

Probing further on the involvement of informal actors also brought to the fore, the exclusive role of community-based cocoa farmers' groups and associations in the management of climate-smart cocoa interventions. These individual farmers who form co-operatives and unions are very powerful in the governance of climate change policies and lead the actual practice of climate-smart cocoa. Respondents indicated that cocoa farmers' associations are usually the operational arms of the climate-smart cocoa interventions at the farm gate. These associations gather to learn and implement cocoa resilient interventions that are recommended by experts and extension officers; hence, their involvement is cardinal.

The Manager of Berekum Cocoa District of the COCOBOD summarised the integrative role of the cocoa farmers association in the governance of climate change policies in Ghana's cocoa sector by pointing out that:

It is important to highlight the involvement of cocoa farmers' associations in the pursuit of climate-friendly cocoa production. These groups operationalise the strategies and frameworks, agreed upon by the experts at the high level and the headquarters of the relevant agencies. Cocoa farmers' groupings integrate and manage the process at the farm gate by nurturing and tending on-farm trees that are used for afforestation purposes in cocoa-growing areas. They equally lead the process to undertake CSC practices on their respective farms. These groups control and manage the rights of on-farm trees by setting up community-based forest guards who reduce extensive cocoa farming and forest encroachment in cocoa areas [Field work data transcript: No. 045].

The study also pointed out the extensive role of religious leaders and other opinion leaders such as Assembly Members and youth leaders, who are fully involved in sustaining the

climate change management practices within cocoa-growing communities in Ghana. Key respondents intimated the role of these community-based agents in the support of forest conservation activities through initiatives that reduces forest fires, illegal mining and uncontrolled logging in conservation sites.

A Secretary to a community-based youth association profoundly indicated that:

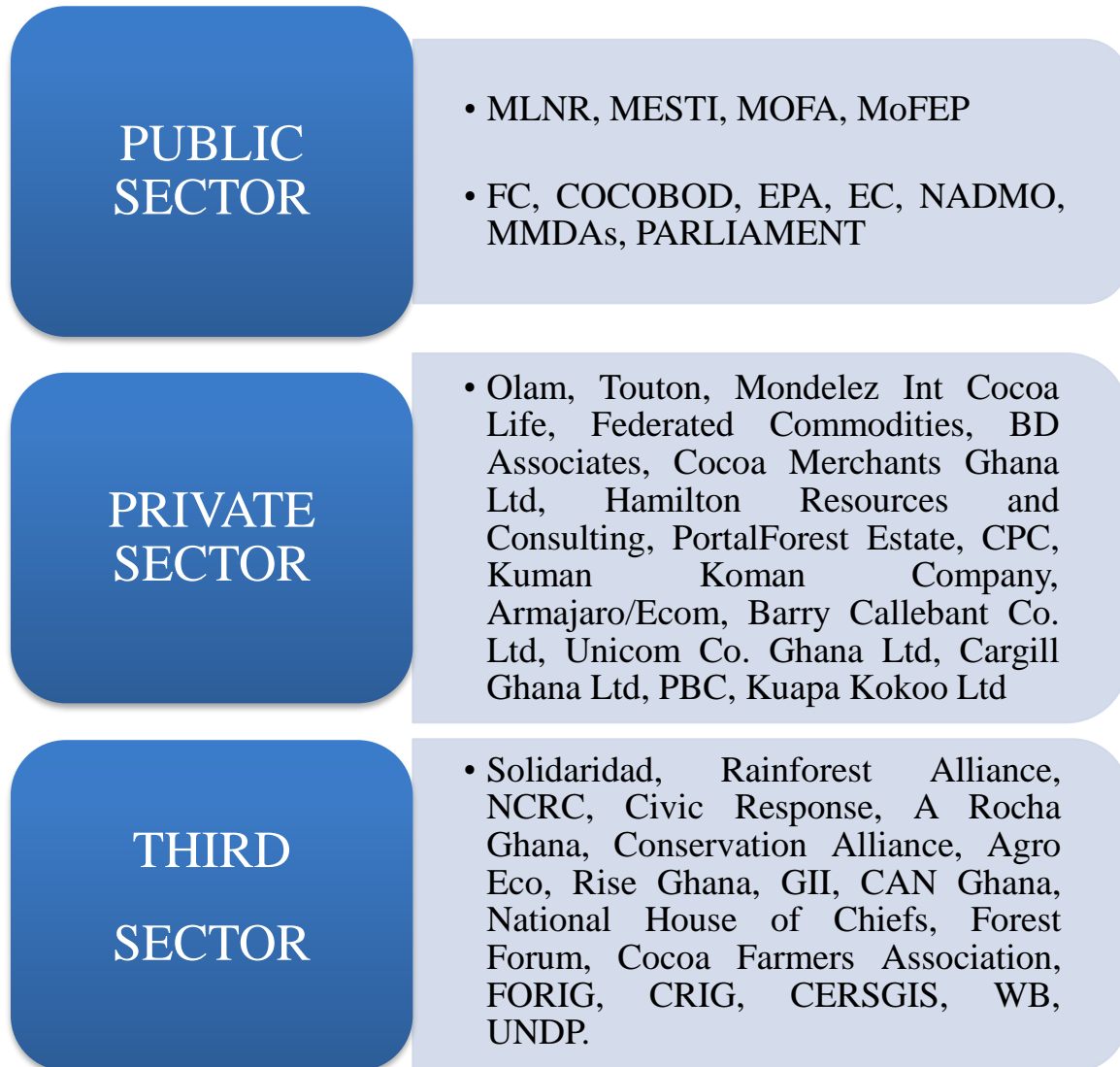
In managing climate change sustainably, there is an urgent need, than ever, to include youth groups, women's associations, cocoa farmers and strategic stakeholders at all levels, including the top, to change the dynamic, reshape the conversation, to make sure all voices are heard and heeded, not overlooked and ignored [Field work data transcript: No. 040].

Comprehensively engaging community-based actors means extending the stakeholder web to include critical actors such as the most disadvantaged citizens who are diversely affected by climate change to contribute to the governance process. This kind of strategic alliance provides indigenous knowledge that reflects the actual issues in the various cocoa communities and how such challenges interrelate with livelihood in these communities. The study finds out that the actual policymakers are the public sector, hence, engaging with such a critical constituency of actors makes it possible for inappropriate strategies to be challenged to negotiate sustainable alternatives for climate action.

In other words, dealing with what appears to be a very local or micro problem such as climate change requires the attention of community-based actors who are mostly affected by climate variations. This underlines how imperative it is for community-based actors to engage with public-sector stakeholders, private-sector practitioners and third-sector players given the long-demonstrated ineffectiveness associated with the traditional bureaucratic means of solving public problems.

The figure below, Fig.6.1 summarily presents the involvement of key stakeholders in the governance of climate change policies in Ghana’s cocoa sector and their corresponding sector.

Figure 6.1 Synthesis of Key Institutional Involvement and Corresponding Sectors



Source: Author’s Construct, 2022

6.5 Underpinning Forces Driving Stakeholder Involvement in the Governance of Climate Change Policies in Cocoa

The involvement of stakeholder groupings in the governance of climate change policies within the cocoa sector is underpinned by several reasons. The findings of the study mentioned that even though multi-sectoral engagement proved daunting and time-consuming, its benefits were numerous. Respondents intimated that stakeholder involvement is borne out of several rationales, which include: The quest to satisfy internationally agreed requirements as enshrined in international level consensus, to build consensus and receive buy-in of key stakeholders in the governance of climate change policies, to ensure opposing concerns are heard and possibly integrated into the governance of climate change policies, and to ensure strict adherence to Ghana's constitutional provisions and key national regulations.

6.5.1 To Satisfy Internationally Agreed Requirements as Enshrined in International Level Consensus

The study sought to explore the underpinning forces driving stakeholder integration into the governance of climate change policies in the cocoa sector of Ghana. The findings of the study show that the involvement of stakeholders, in the design of cocoa sector climate change initiatives is to conform to international conventions and agreements. For instance, the study reveals that the Bali Action Plan requires all REDD+ nations to adhere to a strong stakeholder integration scheme in the formulation and implementation of their respective REDD+ action plans. In much the same way, the COP16 agreement also tasks member countries to fully integrate all relevant stakeholders especially, local actors in the

management of climate change issues at all levels of the process. Moreover, the Kyoto Protocol of the UNFCCC in its Article 2, enjoin all signatory countries to fully collaborate with all stakeholders to ensure the successful implementation of all the stated objectives. A respondent from COCOBOD highlighted the underpinning forces driving the integration of stakeholders:

The rationale for consulting and seeking the participation of key actors in the governance of climate change is to meet certain requirements stipulated in the various international agreements signed. A case in point is component 1 of Ghana's R-PP, which highlights the significance of stakeholder participation and consultation leading to the development of REDD+ communication at all levels from the district, regional and national [Field work data transcript: No. 046].

Some key respondents also cited the Environment and Social Standard Ten (ESS10) of the World Bank as the justification for stakeholders to engage stakeholders. According to respondents, the ESS10 sees stakeholder integration and comprehensive engagement as key for the approval of funds for World Bank-funded climate change projects in all member countries. The position is that transparency through stakeholder engagement enhances the smooth implementation of climate change policies. The ESS10 requires all project implementers to draw a comprehensive stakeholder engagement plan for implementation.

6.5.2 To Build Consensus and Receive Buy-in of Key Stakeholders in the Governance of Climate Change Policies

Consensus building in complex crises such as climate change is essential for the smooth governance of climate change policies. The findings of the study indicated that stakeholder integration in the governance of climate change policies is to allow for a wider group of key actors to accept the need for climate-smart cocoa. Therefore, through extensive

negotiation with key stakeholders, consensus building and key actor buy-in become easier. According to some respondents, consensus building and stakeholder buy-in were critical, considering the severity of climate change in the cocoa sector. Key respondents' buy-in was essential to reduce the scientific biases in the management of climate change in respective communities.

The Municipal Planning Officer from the Berekum East Municipal Assembly emphasised that:

Climate change has been seen as a scientific endeavour, therefore, to create an interface between climate change and policy, there was the need to allow for stakeholder buy-in and consensus building. This allowed for the necessary trade-offs and broad stakeholder buy-ins. The idea is that reducing carbon growth, and adaptation to climate change is dependent on the coordination between policymakers and key stakeholders [Field work data transcript: No. 047].

Climate change continues to be multifaceted, hence, one stakeholder or narrow decision-making process stands to be inappropriate due to a lack of technical know-how on the systematic nature of climate change on the part of a singular actor. Some respondents emphasised that the involvement of other stakeholders in the governance was necessary due to the urgency to build consensus among stakeholders with the public, private and the third sector. Through that, climate change concepts reduce from a science-based endeavour, into a policy constraint requiring active engagement by all stakeholders for clarity and smooth adaptation and mitigation of climate change. The anticipation is that through stakeholder engagement, coercion and manipulation give way for other interested parties to willingly engage and support the measures that are needed for climate action.

6.5.3 To Ensure Opposing Concerns are Heard and Possibly Integrated into the Governance of Climate Change Policies

Active stakeholder integration allows for stakeholders wielding opposing views to equally have their say in the governance of climate change policies. The findings of this study revealed the likelihood of dominant voices influencing the policy direction in cases where opposing concerns are not tolerated. Broader stakeholder integration was therefore cited by some respondents as being able to reduce the domination of the most influential actors in the governance of climate change policy at the expense of less privileged stakeholders. Some key informants averred that at certain times, resistance to the governance of climate change policies emanates as a result of the difference in interests, hence, the need to group stakeholders according to similarities in interests and standpoints. A key informant from EPA reported this:

Opposing views and concerns in the governance of climate change policies within the cocoa sector of Ghana remain a critical part of the policy process, hence, the need to engage opposing views has been part and parcel of the process [Field work data transcript: No. 048].

Probing reveals that through extensive stakeholder engagement, key policy gaps were identified, and necessary adjustments were done to ensure the effective implementation of climate change policies in Ghana's cocoa. Some respondents highlighted that through stakeholder integrations, opposing views emanating from human rights concerns, policy issues, energy challenges, food security concerns and the necessary terms of references were included in the Ghana REDD+ strategy, NCCP, and NCCAS, among others. The findings revealed that this engagement is to allow for affected parties and vulnerable groups

who are disproportionately affected by the shocks of climate change to willingly share their concerns.

6.5.4 To Ensure Strict Adherence to Ghana’s Constitutional Provisions and Key National Strategies

Respondents indicated that stakeholders’ involvement in the governance of climate change policy in Ghana’s cocoa sector is to adhere to constitutional provisions in Ghana’s 1992 constitution. The study intimated that the integration of a range of stakeholders from all sectors is in fulfilment of Article 21 (1) (f) of the 1992 Constitution of Ghana, which recognises access to information and stakeholder participation as critical to national development. Some respondents highlighted that to fulfil this constitutional requirement, key stakeholders within the public, the private and third sector was thoroughly integrated into the governance of climate change. Therefore, all climate change policy documents and strategies within the cocoa sector tend to respect this legal provision by allowing relevant stakeholders to partake in the decision-making processes.

In this regard, a member of the Parliamentary Select Committee on Agriculture and Cocoa Affairs cited several provisions making it incumbent for stakeholder engagement in the governance of climate change as highlighted:

The Right to Information Act, 2019 (Act 989), passed into law in 2019, put into effect, Article 21(10(f) in the Constitution of the Republic of Ghana which states “all persons shall have the right to information subject to such qualifications and laws as are necessary for a democratic society” Articles 40 to 48 of the Local Governance Act, 2016 (Act 936), mandates local authorities to create opportunities for residents and other stakeholders to access information and to participate in decision making [Field work data transcript: No. 049].

Also, the study averred that key legislations such as the Environmental Assessment Regulations, 1999 (LI 1652) enjoin key stakeholders to uphold the integration of all actors in the management of climate change issues in Ghana. The study reveals that the regulation, expects all interested actors to review climate change-related reports, and to present their inputs to the EPA for action. Some respondents were of the view that key regulations as highlighted in relevant Legislative Instruments, tend to put weight on stakeholder integration in the governance of climate change concerns, hence, the evidence of stakeholder integration. Some respondents added that the involvement of the public sector, certain private sector organisations and agencies within the third sector, is to ensure that all actors in the governance space adhere to all policy requirements, legal frameworks and constitutional propositions.

6.5.5 To Allow for Private Sector Investment, Resource Sharing and Transfer of Expertise and Technology

Private sector investment in the governance of climate change policies and the pursuit of CSC is key to building a resilient cocoa sector. Some respondents indicated that private sector investors enjoy the congenial business opportunities existing in Ghana's cocoa sector, hence, their active involvement. Regarding the rationale for private sector stakeholder involvement by the public sector, the study pointed out the need to motivate resource sharing from the private sector stakeholders, since the public sector cannot entirely finance the initiatives. Key informants also mentioned that the underpinning factor informing the integration of private sector stakeholders is to encourage expertise transfer from private sector players who have an extensive track record of technical know-how. Some respondents confirmed that the need to enjoy new technology from the private sector

tends to explain their involvement in the governance of climate change policies in the cocoa sector.

A respondent from MLNR alluded to the following when questions of the rationale for private sector involvement were asked:

Private sector actors such as Olam, Touton, Mondelez Int Cocoa Life, Federated Commodities, BD Associates Cocoa Merchants Ghana Ltd, Hamilton Resources and Consulting, Portal Forest Estate, CPC, Kuman Koman Company, Armajaro/Ecom, Barry Callebant Co. Ltd, Unicom Co. Ghana Ltd, Cargill Ghana Ltd, PBC, Kuapa Kokoo Ltd, are involved due to their business interests. This is also to allow for private sector investment into the governance of climate change concerns, human resource skills sharing and transfer of expertise and technology in the implementation process [Field work data transcript: No. 050].

6.5.6 To Allow for Civic Concerns and Indigenous Knowledge to Feed into the Governance of Climate Change Concerns

The study found that the involvement of third-sector players and other community-based informal actors is to allow for civic concerns and local-based knowledge to form part of the governance process. The findings of the study indicate, for instance, that CSOs, NGOs and think tanks; are integrated into the governance process due to their role in promoting awareness, transparency, and accountability on climate change concerns. Some respondents espoused that traditional authorities, youth groups, cocoa farmers' associations and community-based opinion leaders are also integrated, due to the exclusive support they bring into the governance of climate change policies in the cocoa sector. According to some key informants from Berekum Cocoa District of COCOBOD, the rationale for the integration of community-based informal actors such as traditional authorities and opinion leaders is as follows:

Traditional authorities are integrated, since they are the custodians of forest and farmlands, and due to the exclusive knowledge of community-based informal actors in the indigenous local environment and how climate change affects them. They tend to assist with conflict and dispute resolution whenever challenges are faced in the governance of climate change policies in cocoa-growing areas. The exercise of control and rights of forestlands is key to their involvement in the process [Field work data transcript: No.51].

Key informants observed that traditional authorities and informal local actors who possess strong local knowledge and appreciation of indigenous knowledge are useful for the successful implementation of climate-smart cocoa. The inclusion of these actors is to ensure the dissemination of key climate change messages through multiple channels to affected communities and persons. However, some respondents observed that the level of their engagement is sometimes limited, depending on the issues under consideration at each point of the implementation process.

6.6 Stakeholders' Power and Interest Grid in the Governance of Climate Change Policies Within Ghana's Cocoa Sector

Some key informants indicated that stakeholders' integration in the governance of climate change policies within Ghana's cocoa sector appears to be informed by the power and interest wielded by respective actors. The study observed a long list of stakeholders who have continuously been engaged in the governance of climate-smart cocoa. However, as revealed by this study, the level of involvement of each stakeholder depended on the level of power and interest of that stakeholder as indicated on the grid. It was identified that some stakeholders can influence the CSC agenda; some also have an interest to propose interventions which will directly or indirectly affect the CSC agenda, and others may have some level of interest, but little or no authority to influence the CSC agenda.

According to a respondent from Rise Ghana, the defining factor for involving stakeholders is explained below:

Each stakeholder has a different level of interest, and the degree of the interest determines the ability of the stakeholder to influence the governance of climate change policies within the cocoa sector. The level of power wielded by the stakeholder determines the ability of that stakeholder to vary the outcomes of the process. It is a fact that public sector stakeholders have different power and interest as compared to the private sector and third sector stakeholders [Field work data transcript: No.052].

Further probing revealed that stakeholders possessing both high power and high-interest levels are classified as primary stakeholders who were well integrated throughout the governance of Ghana's cocoa sector climate change policies. Respondents highlighted that these stakeholders are largely public sector players whose interests were sustained in each stage of the policy process. Key respondents also revealed stakeholders who have no clear interests but strong power to influence the governance of climate change management. These stakeholders were identified as secondary stakeholders who have a regulatory role in terms of sustainable management of climate change concerns in Ghana's cocoa sector. The interest of the secondary stakeholder is to satisfy regulatory requirements in the management of CSC.

Community-based stakeholders such as traditional authorities, youth groups and cocoa farmers' associations, tend to have vested interest, considering the indigenous knowledge and the farmlands they offer for cocoa production. CSOs, NGOs and think tanks equally tend to have some level of interest, but limited power, due to the support they garner for climate change management in cocoa zones. Respondent emphasised that these CSOs, NGOs and think tanks tend to possess less authority and power to control the stakeholder

integration process, however, there is the need to keep them well informed due to the advocacy role they assume. Some respondents also pointed out that actors within the bilateral and multilateral stakeholders' bracket, tend to have some interests but the minimal authority to control the climate change governance process. Therefore, their integration is sometimes limited.

The table below (Table 6.1) presents a summary of the stakeholders' power and interest grid, as identified in the governance of climate change policies within Ghana's cocoa sector.

Table 6.1 Stakeholders' Power and Interest Grid in the Governance of Climate Change Policies within Ghana's Cocoa Sector

S/N	Level of Power wielded by stakeholders	Level of Interest held by stakeholders	Level of Integration of stakeholders	Implication for stakeholders
A	High power	Highly interested stakeholders.	Stakeholders are well integrated into every stage of the process.	Efforts are made to fully stratify the demands of stakeholders within this bracket at every stage of the process.
B	High power	Less interested stakeholders.	Stakeholders are just kept satisfied.	Efforts are made to just stratify these stakeholders but not bombarded with CSC initiatives.
C	Low power	Highly interested stakeholders.	Stakeholders are just kept informed.	Efforts are made to adequately inform these stakeholders to ensure that no major issues are arising.
D	Low power	Less interested stakeholders.	Stakeholders need to be monitored.	Efforts are made to monitor these stakeholders without providing excessive information.

Source: Author's Construct, 2022

6.7 Chapter Conclusion

The chapter indicates that climate change in Ghana's cocoa sector is no more an abstract endeavour, but real and lived for most of the cocoa-growing communities. Therefore, the correct mix of different voices, actions, and ambitions from multi-stakeholders across levels and sectors is needed to remedy the already worsened climate situation. Generally, this chapter has highlighted good progress in terms of stakeholder integration, institutional arrangements, stakeholder accountability and transparency in the governance of climate change policies within Ghana's cocoa sector. Informants' appreciation of the enormity of cross-sectoral coordination, and technical supervision, among others, is achieved through the integration of these key stakeholders. Key informants hold the view that GCFRP and other climate change initiatives, support the integration of multiple stakeholders across all sectors.

Several stakeholders have been integrated through consultation, strategic meetings, workshops, technical meetings, and sensitisation exercises. Vertical and horizontal integration of strategic actors within the private sector, public sector and the third sector, at the national and sub-national levels of the cocoa economy has been encouraged. However, attention is also needed towards the operationalisation of the Feedback and Grievance Redress Mechanism, as highlighted in the Ghana Cocoa Forest REDD+ Programme. The study observes that the main state actors/stakeholders, involved in the governance of Ghana's cocoa sector climate change policies are the: MLNR, MESTI, MoFA, MoFEP, EPA, Ghana COCOBOD, Minerals Commission, Forestry Commission, Cocoa Research Institute of Ghana (CRIG) and Forestry Research Institute of Ghana (FORIG).

According to respondents, there is a need to enhance the quality of multi-stakeholder collaboration and decision-making. The study reveals that stakeholders are integrated based on their relative power and interest in the issues under consideration. That is, integration into the governance of climate change policies within Ghana's cocoa sector appears to be informed by the power and interest, wielded by respective actors which are not equal across the board.

CHAPTER SEVEN

SIGNIFICANCE AND BARRIERS TO COMPREHENSIVE STAKEHOLDER INTEGRATION IN THE GOVERNANCE OF CLIMATE CHANGE IN GHANA'S COCOA

7.0 Introduction

Climate change management offers a significant backdrop for stakeholder integration considering the enormity of stakeholders and their varying interests. Comprehensive stakeholder engagement has the potential to enhance sustainable climate change governance. Within the cocoa sector, governance of climate change policies tends to engender effective decision-making, ensure consensus building, generate stakeholder buy-in and promote the sustainable application of best practices. Notwithstanding the benefits of stakeholder integrations, significant pitfalls in stakeholder involvement are equally visible. This chapter of the study, therefore, sought to examine the significance and barriers associated with comprehensive stakeholder integration in the governance of climate change policies within the cocoa sector of Ghana. Moreover, measures towards ramping over the identified barriers to stakeholder engagements are also explored in this chapter.

7.1 Significance of Comprehensive Stakeholder Integration in the Governance of Climate Change Policy

The findings of the study show that the significance of comprehensive stakeholder integration appears to be diverse. The study indicates that stakeholder integration tends to

improve diversity and equitable inclusion of marginalized groups in climate change decision-making and implementation as well as enhance transparency and acceptability of formulated policies and reduces potential disagreements during implementation. The study further shows that stakeholder integration equally creates an avenue for peer learning, the exchange of technical knowledge and expertise necessary for CSC and facilitates the smooth implementation of climate change policies in rural cocoa communities. This section explores the significance of comprehensive stakeholder integration in the governance of climate change policy in Ghana's cocoa sector as revealed by respondents.

7.1.1 Diversity and Equitable Inclusion of Marginalized Groups in Climate Change Decision-making and Implementation

Inclusive development and equity in terms of stakeholder roles remain critical in climate change decision-making processes as well as their implementation. In this regard, the study unearthed that through stakeholder integration, diversity and inclusion are increased in terms of decision-making and implementation of climate change initiatives within Ghana's cocoa sector. Key respondents hold the view that climate change poses an overwhelming impact on virtually all sectors of the world's economy. Therefore, diversity and equitable inclusion of marginalized groups in climate change decision-making remain a significant endeavour. The findings of the study averred that those marginalized groups and stakeholders with limited power and authority in the governance process are the most affected by climate change shocks.

Therefore, stakeholder integration serves as the most prudent way of ensuring that most marginalized groups are well integrated into the entire process of climate change governance.

An Assembly Member highlighted as follows:

Stakeholder integration is a very important endeavour because it allows for the inclusion of diverse actors ranging from powerful to less powerful actors. Its significance is that climate change affects the most vulnerable in society who have less power and low authority. Hence, equitable and diverse involvement of these marginalized stakeholders allows for the less privileged to equally have their views captured in climate change decisions. This improves the quality of decisions made concerning sustainable cocoa production and adaptation to climate change in cocoa cultivation [Field work data transcript: No.053].

Key informant iterated that decision made concerning diversity with equal representation from the public sector, private sector, third sector and the local population is key to sustainable development. Understanding of climate change shocks and sustainable measures proffered is built through such comprehensive inclusions. Less privileged actors with conflicting views and context-specific concerns are captured in the decision-making process. This ultimately eases up tensions that are likely to emerge in the decision-making process and implementation of climate change initiatives in the cocoa sector. The net benefit for the cocoa sector is that sustainable agroforestry practice is championed by all stakeholders irrespective of the power imbalances in the network of actors.

The 2019 District Best Cocoa Farmer for Berekum Cocoa District mentioned as follows:

The power imbalance is very common within Ghana's cocoa sector considering the array of involvement of powerful international and local business actors, strong state agencies as well as regulators and other powerful stakeholders. Therefore, a comprehensive stakeholder engagement

approach is used to allow the less privileged such as poor cocoa farmers, under-resourced local authorities as well as other stakeholders to have an equal say in the governance of climate change concerns in Ghana's cocoa sector [Field work data transcript: No. 054].

Further probing sheds light on the fact that stakeholders who are directly or indirectly affected by climate change, get the avenue to contribute towards decision-making on climate change from diverse backgrounds. The finding of the study shows that stakeholders in contemporary climate change governance need not be recipients of climate change policies alone but active players and drivers of climate change initiatives. Through this approach, an all-hands-on-deck ecosystem is created for all stakeholders irrespective of social standing. Minority groups such as women, People With Disabilities (PWD), illiterates and youth groups, can take part in the decision-making on climate change issues in their communities.

7.1.2 Transparency and Acceptability of Formulated Policies Reduce Potential Disagreements During Implementation

Transparency and policy acceptability remains key in the formulation and implementation of public policies. The findings of this study postulate that building a more transparent and accessible community of stakeholders in the governance of climate change policies in Ghana's cocoa sector remains cardinal. That is, the smooth implementation of CSC interventions to a large extent depends on stakeholder integration. Moreover, the acceptability of policies depends greatly on the extent to which stakeholders are engaged comprehensively from policy formulation up to the implementation. The findings of this study point to the argument that stakeholder integration within the governance of climate

change policy has been helpful to the extent that it has enhanced the acceptability of climate change initiatives in Ghana's cocoa sector.

In this regard, the Secretary of the Kuapa Cocoa Farmers' Cooperative Union in Berekum indicated as follows:

The cocoa rehabilitation program, as introduced by the Government of Ghana through the Ghana COCOBOD, to cut down and replant all cocoa farms affected by the Swollen Shoot virus disease has been successful due to stakeholder integration. Cocoa farmers, Farmer's Associations, Agricultural extension officers, and all relevant stakeholders have been well integrated into the entire process. This has led to massive stakeholder buy-in, and the policy has been very acceptable to all actors. This has increased cocoa production and promises to even increase in a few years to come if well managed [Field work data transcript; No. 055].

Probing reveals that stakeholders need not become end recipients of climate change initiatives. However, through the comprehensive integration of an array of stakeholders, climate change policies and initiatives mainstreamed to reduce deforestation of forest reserves for cocoa production, and soil degradation due to unsustainable cocoa farming and water stress becomes easily acceptable to all actors. Key respondents highlighted that all stakeholders become drivers of the climate change policy process when they feel integrated into the process and recognize transparency in the governance of climate change issues. The study presents that better-accepted climate change initiatives tend to yield sustainable results in terms of CSC production in Ghana.

Key respondents indicated that stakeholder integration which takes into consideration transparency measures ultimately enhances climate change policy acceptability to reduce potential disagreements during implementation. In effect, a consensus is built by various

stakeholders on climate change initiatives within the cocoa sector and limits potential and actual disagreements on the implementation of climate change initiatives.

7.1.3 Opportunity for Peer Learning, Exchange of Technical Knowledge and Expertise Necessary for CSC

Projections on climate change and environmental variations tend to conflict with the normal and logical ways of making decisions for socio-economic issues. That is, climate change continues to enjoy extensive technical biases due to the profound vagueness of projections on climate change and the dominance of scientific concepts in its explanation and definition. However, its varied ramification on all sectors requires that the scientific biases need to be brought down to the level of other stakeholders who are not well-vested in the concept and practices of climate change. Respondents are of the view that through constant meetings and engagements with diverse stakeholders, peer-to-peer education is generated among all stakeholder groups. Technical persons and expert groups tend to break down the concept of climate change to other stakeholders for easy understanding and smooth application of adaptation and mitigation measures in Ghana's cocoa sector.

A respondent from Mondelez Int. Cocoa Life is revealed as follows:

Climate change is often regarded as a very technical and science-biased endeavour, which needs to be handled by experts who have the technical expertise. However, involving multi-level stakeholders ranging from public, private and third sector means that individuals who lack the required knowledge need to be involved. Stakeholder engagement offers the right avenue for experts and technical persons to educate other stakeholders on the dynamics and shocks associated with climate change. So far, the integration of stakeholders in the governance of climate change has facilitated knowledge sharing and peer learning among key stakeholders [Field work data transcript: No. 056].

The study reveals that peer learning, the exchange of technical knowledge and expertise, necessary for CSC has enhanced the adaptation and mitigation of climate change within the local communities where cocoa production takes place. Some respondents indicated that stakeholder integration fosters the meeting of divergent viewpoints and ideas on fashioning out a sustainable approach to climate change shocks in the cocoa sector. This leads to knowledge sharing on critical climate change concerns in the cocoa sector. Implementation and collaboration become easier in terms of reducing practices such as deforestation of forest reserves as a result of cocoa cultivation, and soil degradation due to unsustainable farming practices. Adaptation to growing changes in rainfall patterns and water scarcity becomes easier to undertake as a result of sustainable stakeholder integration in the governance of climate change policies.

Extensive probing indicated that through stakeholder engagement, an understanding of climate change issues is generated among key stakeholders. Context-specific knowledge of climate change concerns within an identified geographic region is brought to the fore for expert advice and alternative livelihood strategies to be devised. According to this study, peer learning and knowledge sharing through stakeholder integration provided opportunities for climate change shocks within a specific geographical location to be well understood by all stakeholders. Appropriate climate change strategies are developed through peer learning and expert discussion for sustainable cocoa production in local communities. Unique selling points for implementing climate change initiatives in cocoa communities are then tabled for consensus.

7.1.4 Smooth Implementation of Climate Change Policies in Rural Cocoa Communities

Deforestation and land degradation of forest reserves for cocoa production purposes appear to be endemic in rural communities. Issues such as illegal logging and artisanal mining in rural cocoa communities pose severe threats to the environment and this is usually caused by rural community dwellers. Therefore, initiatives towards reducing the impacts of climate change need to be broad and integrative with the active involvement of local communities that are most affected by the impacts of climate change. The study identified that stakeholder integration tends to enhance the smooth implementation of climate change policies in rural cocoa communities that receive the brunt of climate change. Key informants highlighted that unpredictable rainfall patterns, water stress, deforestation of forest reserves and land degradation causes a severe challenge for local communities who depend solely on the environment for daily livelihood. Therefore, the implementation of climate change initiatives with active integration of rural cocoa communities makes the entire policy implementation very smooth and impactful.

In this regard, a member of the NCCC revealed the following:

Local communities are the most hit by the impact of climate change, hence implementation becomes easy when local actors are at the centre of climate change issues. Local actors such as MMDAs, local farmers' associations and opinion leaders represent the actionable part of the policy implementation process. The adoption of sustainable cocoa production methods through the implementation of climate change initiatives by farmers makes climate-smart agriculture successful in cocoa-growing communities [Field work data transcript: No. 058].

This revelation was equally corroborated by the views expressed by a community-based cocoa cooperative society, Cocoa Abrabopa that:

Climate change impact in cocoa growing areas is evident as the rainfall pattern keeps changing, and the predictability of raining season and the dry season is also obvious. Therefore, involving rural farmers in the CSC interventions makes it easier to sustain these sustainable cocoa production practices at the farm gate. Equally, bad farming practices such as cutting down trees, burning trees, and dumping plastic residues from pesticide, weedicide and fertilizer applications are reduced, hence, the advancement of CSC [Field work data transcript: No. 059].

Extensive probing reveals that comprehensive integration of key stakeholders, particularly those at the community level tends to enhance the implementation of climate change initiatives. The study mentioned that implementation is usually successful when it emanates from the most affected actors. The idea is that integrated stakeholder engagement breeds stakeholder consensus in the practice of sustainable cocoa practices. The findings of the study also show that implementation of climate change policies through active stakeholder engagement becomes smooth, as primary stakeholders such as farmers regard such collaborations as beneficial partnerships for sustainable cocoa production.

7.2 Barriers to Comprehensive Stakeholder Integration in the Governance of Climate Change Policy

Key barriers to comprehensive stakeholder integration, as revealed by the study include the dominance of elite groups and central control of powerful actors who appears to be experts in climate change and the quest to follow strict timelines on climate change governance considering the critical nature of climate shocks. Respondents equally cited the difficulty in accessing and understanding credible climate change information and data as deterring factors for stakeholder integration among many others. This section of the study presents the respondents' position on the barriers to comprehensive stakeholder integration within Ghana's cocoa sector.

7.2.1 Dominance of Elite Groups and Central Control of Powerful Actors who Appears to be Experts in Climate Change

The knowledge base and expertise of key stakeholders in climate change issues play a critical role in the governance process. Key respondents reveal that the perception of climate change as a science-biased endeavour, which needs to be handled by experts who have technical expertise tends to limit the level of engagement by other critical stakeholders. The study further contends that the view that certain stakeholders are ill-informed and not empowered enough to contribute meaningfully towards a science-biased concern such as climate change is a matter of immense concern. In instances where they are integrated, vulnerable stakeholders tend to function as secondary stakeholders who are mostly controlled by elites and technocrats. However, involving multi-level stakeholders ranging from public, private and third sector as a necessary condition to sustainable climate change governance means that individual who lack the required knowledge equally needs to be integrated comprehensively.

The findings of the study show that the dominance of elite groups and central control of powerful actors tends to limit the level of engagement of all stakeholders. Elite groups and knowledgeable stakeholders tend to dominate the discussions to the disadvantage of vulnerable stakeholders who are most affected severally by the impact of climate change. According to a respondent from NDPC, an important barrier to comprehensive stakeholder integration in the governance of climate change policy is the result of the following:

Climate change is a significant science-biased phenomenon and a complex global concern, which requires technical knowledge in handling them. Therefore, expert information is key in policy formulation and implementation. Individuals who are not well informed cannot contribute

meaningfully towards a science-biased concern such as climate change. This serves as a barrier for certain vulnerable stakeholders to be roped into the governance of climate change within the cocoa sector since they are not well informed. Dominance and excessive control of elite groups within the public and private sector tend to deter other stakeholders who have been deemed less powerful and influential in the stakeholder network [Field work data transcript: No. 060].

Public sector players such as EPA, FC, MESTI, MLNR, COCOBOD, CRIG, FORIG, and other private actors are usually seen as powerful and knowledgeable compared to local farmers. This tends to deter less-powerful community actors and certain third-sector actors from freely contributing to the governance of cocoa sector climate change issues. Informants who are members of Farmers' Associations unanimously hold the view that they do not possess the requisite technical knowledge to contribute towards climate change initiatives hence their non-involvement.

Members of the Kuapa Cocoa Farmers' Cooperative Union unanimously revealed the following:

As farmers, we may have the practical experience of changes in climatic conditions and their impact on our productivity. However, we are being perceived as not knowledgeable enough to contribute immensely towards the decision-making process. Most climate change initiatives concerning cocoa always get to us finished interventions without any clear room for collaboration. We feel we do not have the needed knowledge and technical expertise to contribute towards the formulation of the policy. We do not feel entitled to contribute or collaborate equally with other stakeholders on these issues. Public sector players such as EPA, FC, MESTI, MLNR, COCOBOD, CRIG, FORIG and other private actors often play the central role, which deters ordinary farmers from actively participating in the process [Field work data transcript: No.061].

The justification is that a lack of knowledge on climate change issues tends to affect the formulation and implementation of climate change policies in Ghana's cocoa sector. Key

informants highlighted that inadequate expertise on climate change shocks disincentive some stakeholders in the governance of climate change concerns in the cocoa sector. Stakeholders who have low capacity and knowledge on climate change issues stand to excuse themselves from other stakeholders on climate change governance.

7.2.2 Quest to Follow Strict Timelines on Climate Change Governance Considering the Critical Nature of Climate Shocks

Timeliness remains key in climate change governance processes considering the extent of the impact on all sectors of the economy including cocoa productivity in Ghana. The findings of the study reveal that most climate change governance frameworks are under projects, which are time, bound in nature. This makes it technically difficult for all relevant stakeholders to be involved, due to the time-consuming nature of stakeholder integration. Stakeholders come to the discussion table with varying concerns, opinions and ideas, which need to be thoroughly examined before decision-making. Following through concerns of all stakeholders and addressing them requires significant time, hence, the difficulty in comprehensive stakeholder integration. Documentary evidence shows that the UNFCCC reporting systems require that specific timelines be met to report in 2019, 2021 and 2023 on the progress of climate change interventions.

The study further observed that at certain times, building consensus becomes difficult as a result of mistrust among key stakeholders and the need to adhere to legal requirements. This tends to frustrate the stakeholder integration process and causes unwanted delays in the entire process due to difficulties in consensus building as a result of divergent

viewpoints. Hence, certain stakeholders are not comprehensively integrated into some of the key issues of building sustainable cocoa production in Ghana.

A respondent from FC provided the following insights:

Time constraints associated with comprehensive stakeholder integration make it extremely unbearable to involve all stakeholders. For instance, the coordination of stakeholders alone is such a herculean task and time-consuming, which makes it an impediment to thoroughly integrate all relevant stakeholders, considering the timeliness associated with climate change policy processes. Mostly, all relevant public sector stakeholders and some private actors are involved but the third sector and the community-based actors are usually ignored when timeliness becomes an issue [Field work data transcript: No. 062].

Further insight into barriers to stakeholder engagement reveals that stakeholders who are apathetic to climate change concerns, at certain times drag the governance processes and make it practically impossible to ensure CSC. Therefore, stakeholders who lack the requisite motivation to fully participate in the process are not fully integrated into the process. Key informants revealed that stakeholders who are indifferent about the impact posed by climate change are sometimes reluctant to invest much time into the governance of climate change policies, hence, the difficulty to integrate them comprehensively. Moreover, the unwillingness to engage in critical decisions of national concerns by certain stakeholders serves as a hindrance to the smooth and comprehensive stakeholder integration on climate change discussions.

7.2.3 Difficulty in Accessing and Understanding Credible Climate Change Information and Data

Access to credible climate change information and data critically enhances stakeholder participation and active inclusion in the management of climate change initiatives. In this regard, the findings of the study depict that some stakeholder groups are lackadaisical in terms of their involvement in the governance of climate change due to the difficulties inherent in accessing critical data and information on climate change. Some respondents indicated that information that should be made readily available to all stakeholders within the network of actors is sometimes restrained from some actors. This makes active integration a barrier for stakeholders who do not have adequate information and data on climate change. According to this study, actors who are custodians of this sensitive data and information on climate change tend to rely on confidentiality clauses to withhold information.

A respondent from the EPA bemoaned by stating as follows:

Another hindrance to comprehensive stakeholder integration in the governance of climate change issues in Ghana's cocoa sector is the difficulties inherent in having access to credible climate change data, documents and information. Even though the climate secretariat at FC has a functional REDD+ data Hub, access to the electronic system remains a challenge. Data on it is usually not up to date and difficult to come across due to structural errors inherent in the official data hub [Field work data transcript: No.063].

In most instances, the information released is extremely difficult for all stakeholders to understand and process. The format within which climate change data is presented is often difficult for stakeholders to decode and utilize. The findings of the study highlighted that climatic data points such as temperature and precipitation as often difficult to understand

even when provided to stakeholders. The study further shows that efforts to build the capacity of stakeholders to understand climate change data are mostly delayed and not thoroughly followed through. According to key informants, stakeholder networks within the public sector, private sector and the third sector require reliable, relevant and accessible data to predict the outcome and effect of climate change on the cocoa sector. The challenge of accessing credible data tends to deter some stakeholders from comprehensively engaging in the governance of climate change.

A respondent from Solidaridad West Africa emphasises that:

Understanding climate change data requires relevant and sound knowledge to process and apply climate change knowledge to daily activities. To some extent, most stakeholders who are required to partake in the governance of climate change policies in the cocoa sector appear to lack relevant knowledge of climate change considering the science-biased nature of climate change [Field work data transcript: No. 064].

Key respondents averred that data on climate change stand to be beneficial when it is presented in a manner that is understandable to ordinary stakeholders. However, the lack of experts' advice on reliable climate data within Ghana's cocoa sector prevents stakeholders from comprehensively engaging in the process.

7.2.4 Non-involvement of Certain Critical Stakeholders in the Pricing of Cocoa Producer Prices

The study shows that another barrier that works against comprehensive stakeholder engagement is the non-involvement of critical stakeholders such as cocoa farmers' associations and other local actors in the determination of the cocoa producer process. Cocoa producer prices appear to be one of the most important issues for local actors such

as cocoa farmers' associations, hence, not involving them serves as a disincentive for their involvement in other cocoa-related policies. According to key informants who were mainly cocoa farmers and members of the cocoa farmers' association, the failure of COCOBOD to involve them in the determination of cocoa prices makes it difficult to also contribute to other important governance issues such as climate change policies.

A member of the Kuapa Cocoa Farmers' Cooperative Union highlighted as follows:

There is no sense of belonging and no need to be involved in the governance of climate change policies due to our non-involvement in the determination of cocoa prices as producers. For cocoa farmers, determining cocoa prices is an important endeavour, which should be of prime concern to cocoa farmers. However, cocoa farmers who are at the forefront of cocoa production have been ignored since the start of cocoa production in Ghana. Other stakeholders are rather consulted with no input from cocoa farmers. To a large extent, cocoa farmers do not see the rationale for being involved in other issues since farmers are not involved in the price determination [Field work data transcript: No. 069].

Key respondents of the study bemoaned that the continuous unfair pricing of cocoa beans to cocoa farmers is a result of poor stakeholder engagement in the pricing process. Farmers, therefore, find it very difficult to contribute to the governance of climate change policies due to the non-involvement of cocoa farmers in the pricing process. The idea is that the non-involvement of farmers in the determination of producer prices contributes to the level of extreme poverty that tends to befall cocoa farmers in rural Ghana.

7.3 Overcoming the Impediments of Comprehensive Stakeholder Integration in the Governance of Climate Change

Climate change continues to be one of the most sophisticated global challenges confronting all sectors of the world's economy. The findings of the study reveal that stakeholder

integration stands to enhance sustainable governance of climate change policies within the cocoa sector. However, barriers continue to exist in the comprehensive integration of stakeholders into the governance of climate change policies in Ghana's cocoa sector. Barriers such as the dominance of elite groups and central control of powerful actors who appears to be experts in climate change and the quest to follow strict timelines on climate change governance considering the critical nature of climate shocks appear to be common in the governance process. Respondents equally cited the difficulty in accessing and understanding credible climate change information and data and the non-involvement of certain critical stakeholders in the pricing of cocoa producer prices as deterring factors for stakeholder integration.

To overcome these identified barriers to the comprehensive integration of key stakeholders, the study reveals that capacity building for all stakeholders is key. Also, nurturing a sense of belonging for all stakeholders in CSC discourse and practice stands to be helpful. Key respondents further suggested that communicating climate change timeliness and core project targets is important as well as, and making data on climate change needs to be freely accessible and credible for all stakeholders.

7.3.1 Capacity Building for all Stakeholders is Key in Whipping up the Interest of all Actors

The findings of the study show that the capacity of stakeholder groups on climate change issues makes the complex roles of all stakeholder groups very easy. According to respondents, building stakeholders' capacity on the multi-facet nature of climate change issues put stakeholders in a good position to contribute meaningfully towards the decision-

making process. It further raises the knowledge base of stakeholders to sustain their commitment towards ensuring sustainable cocoa production in Ghana. The study highlights that effective capacity building for all stakeholder networks presents a novel opportunity for efficient governance of climate change issues to engender optimal benefit sharing. Some respondents were of the view that capacity building presents opportunities to reflect on climate change priority areas, which allows for tailor-made contributions towards facilitating sustainable cocoa production in Ghana.

A respondent from Unicom Co. Ghana Ltd indicated how a capacity building stands to benefit the governance of climate change policies by stating as follows:

Capacity building on critical climate change issues presents a good opportunity for all stakeholders to gain novel insights into key areas of sustainable cocoa production in Ghana. This would enable stakeholders to be adequately empowered to contribute meaningfully towards delivering optimal results for CSC [Field work data transcript: No. 065].

The findings of this study indicated further that through effective capacity-building interventions, better options for governing climate change initiatives are tabled and powerful insights into CSC are chosen for implementation.

7.3.2 Nurturing a Sense of Belonging for all Stakeholders Creates a Sense of Ownership

This study postulates that to ramp over the impediments of stakeholder integration in the governance of climate change policies, there is the need to consciously nurture a high sense of belongingness among all stakeholders. The rationale is that stakeholders who possess a strong sense of belongingness for climate change governance tend to own the process and contribute significantly towards attaining CSC. According to the study findings,

stakeholders who have a high sense of ownership towards climate change initiatives are hardly demoralised by impediments that emerge during the climate change governance process. This tends to enhance stakeholder involvement and spur up the interest of all actors towards offering their best in the stakeholder governance process, which ultimately translates into the outcomes, required for reduced deforestation and enhanced afforestation measures.

Regarding building a sense of ownership as a potent strategy towards reducing the barriers in stakeholder integration, a respondent from MoFA intimated as follows:

Stakeholders who are well nurtured throughout the governance process tend to develop a high sense of ownership for CSC initiatives. Through this nurturing process, stakeholders develop a high sense of commitment towards the stakeholder integration discourse on the governance of sustainable cocoa. Participation and commitment stakeholders tend to experience some level of increment [Field work data transcript: 066].

Further probing shows that by nurturing a sense of belonging, stakeholders develop some level of motivation to contribute towards the sustainable cocoa production interventions earmarked for the sector. Stakeholders therefore become welcomed in all facets of the decision-making process.

7.3.3 Communicating Climate Change Timelines and Core Project Targets is Important

Insights from this study reveal that by ensuring transparency in project timelines through timely communication of project timelines, tend to impact positively on stakeholder engagements. This is against the backdrop that some respondents hold the view that the quest to follow strict timelines on climate change governance considering the critical nature

of climate shocks tend to serve as a barrier to comprehensive integration. As a remedial measure, key respondents intimated that communicating climate change timelines and priorities to all stakeholders enhances transparency in the governance process. Harmony in terms of stakeholder inputs is created throughout the process. According to respondents, setting records straight on key climate change targets and priority areas reduce barriers in the process and rather whip up stakeholders' interest in core CSC interventions.

The Chief of Berekum Traditional authority highlighted that:

Not thoroughly communicating climate change timelines and targets makes it difficult for key stakeholders to get involved fully. Sharing key information enhances the interest of all stakeholders to offer all expertise needed for the governance of CSC. Stakeholders feel enthused to offer their optimal best when information on targets, priorities and timelines is shared with all stakeholders [Field work data transcript: No. 067].

The study suggests that communicating climate change priorities and targets to key stakeholders tend to enhance stakeholder satisfaction and increase their energy to contribute effectively towards the core climate change matters of discussion. In this regard, the study argued that stakeholders are better informed to contribute towards the decision-making processes in the governance of climate change within the cocoa sector.

7.3.4 Credible Data on Climate Change Needs to be Freely Accessible

Respondent cited the difficulty in accessing credible climate change information and understanding climate change data as a barrier to smooth stakeholder integration. In this regard, the findings of the study show that making data on climate change freely accessible and credible tends to spur the interest of key stakeholders towards the governance of climate change in Ghana's cocoa sector. According to the study, climate change as a global

tragedy tends to be faced with data inaccuracies making data accessibility a difficult phenomenon for stakeholders. Some stakeholders even shy away from engaging in the process as a result of the difficulty in accessing credible climate change data. Respondents mentioned that building a low-carbon future for Ghana's cocoa sector calls for openness in climate change data.

A key respondent from Kuapa Kokoo Ltd intimated as follows:

Most stakeholders in the governance process are inspired to contribute optimally when data on climate is credible and freely accessible without any hindrance. Stakeholder networks within the public, private and third sectors equally crave credible and relevant data to arrive at a strategic decision [Field work data transcript: No: 070].

Further insights into the study reveal the position of respondents that credible data, which indicates climate change trends from the future and the changes in the current climatic conditions, motivates succinct future projections. Such accuracies in climate change data indicate the harm caused by climate change and the urgency for concerted efforts by all stakeholders.

7.4 Summary of Key Findings

The findings reveal that stakeholder integration in the governance of climate change in cocoa appears to mimic a semblance of tokenism and an easy approach to creating a sense of responsibility among stakeholders remains imperative. The chapter has revealed that stakeholder integration enhances peer learning, exchange of technical knowledge necessary for CSC, diversity and equitable inclusion of marginalized groups, transparency and acceptability of formulated policies among others. Thus, effective stakeholder engagement enhances the coproduction of knowledge on CSC, sharing of expertise from

all stakeholders and the strategic enforcement of corporate decisions by all stakeholders. Similarly, climate change tends to affect the most vulnerable in society who have less power and low authority to exonerate themselves from such climate-related hardships.

Hence, equitable and diverse involvement of these marginalized stakeholders allows for the less privileged to equally have their views captured in key climate change decisions. Stakeholder integration engenders transparency and acceptability of formulated policies which ultimately reduces potential disagreements during climate change policy implementation. The idea is that a minority of communities and local stakeholders are often poor, marginalized in decision-making processes and mostly not able to join climate-smart deliberations due to technical and regulatory processes, hence, such comprehensive actor inclusions serve as a remedy for active involvement which enhances climate action at the micro.

However, questions about the difficulties in engaging all stakeholders and the chances of reaching a consensus through such huge numbers appear to be obvious. Beyond the high sides of stakeholder integration, barriers to stakeholder integration exist and pose challenges in some instances. The study highlights the dominance of influential elite groups and central control of powerful actors who appear to possess a good level of expertise in climate change. The quest to follow strict timelines on climate change governance considering the critical nature of climate shocks amidst the international reporting scheme tends to undermine the integration of all stakeholders in CSC initiatives. Difficulty in accessing and understanding credible climate change information and data serve as major impediments to CSC in Ghana and call for pragmatic interventions as remedial measures.

7.5 Chapter Conclusion

This chapter presents the last empirical findings of the study which was dedicated to presenting key findings on the significance and barriers associated with comprehensive stakeholder integration in the governance of climate change policies within the cocoa sector of Ghana. Moreover, measures towards ramping over the identified barriers to stakeholder engagements are also explored in this chapter. According to this chapter, the findings of the study show that the significance of comprehensive stakeholder integration appears to be diverse. For instance, the study indicates that stakeholder integration tends to improve diversity and equitable inclusion of marginalized groups in climate change decision-making and implementation as well as, enhance transparency and acceptability of formulated policies and reduces potential disagreements during implementation.

The study further shows that stakeholder integration equally creates an avenue for peer learning, the exchange of technical knowledge and expertise necessary for CSC and facilitates the smooth implementation of climate change policies in rural cocoa communities. Key barriers to comprehensive stakeholder integration, as revealed by the study include the dominance of elite groups and central control of powerful actors who appears to be experts in climate change and the quest to follow strict timelines on climate change governance considering the critical nature of climate shocks. Respondents equally cited the difficulty in accessing and understanding credible climate change information and data as deterring factors for stakeholder integration among many others. To overcome these identified barriers to the comprehensive integration of key stakeholders, the study reveals that capacity building for all stakeholders is key.

Also, nurturing a sense of belongingness for all stakeholders in CSC discourse and practice stands to be helpful. Key respondents further suggested that communicating climate change timeliness and core project targets is important as well as, and making data on climate change needs to be freely accessible and credible for all stakeholders. The next chapter is dedicated towards a critical analysis of all three empirical chapters (Chapters 5, 6 and 7).

CHAPTER EIGHT

ANALYSIS AND DISCUSSION OF STUDY FINDINGS

8.0 Introduction

This study has broadly generated key findings which hold the enormity of implications for the governance of climate change policies in Ghana's cocoa sector in the short, medium, and long term. Following the previous empirical chapters (Chapters 5, 6, and 7) which have presented the key findings from the field study, this chapter seeks to analyse and discuss the findings generated from the field study as presented in the three empirical chapters. This chapter also synthesizes and highlights the nexus between the key findings of this study and the existing body of research through thorough discussions and analysis. The key findings garnered from this research and its relationship with extant literature are further explored to contribute to knowledge and practice regarding governance, climate change, cocoa sector sustainability, and Public Administration among others.

Consistent with the objectives of this study, this chapter is divided into three main subsections to analyse and conclude the synthesis of study findings and how Integrated Public Governance theory plays out in contemporary governance of climate change policies in the cocoa subsector. The first section of this study discusses the governance of climate change policy as insights from other scholars (Agrawal, 2010; Boon & Ahenkan 2012; Bulkeley et al., 2012) have revealed and further extended the discourse into the cocoa subsector. One reason is that the cocoa subsector, unlike other subsectors has a proven track record of phenomenal contribution to Ghana's economy (Republic of Ghana 2012;

Schroth et al., 2016). This historically proven record has the potential to reduce drastically considering the level of devastation caused by the climate change crisis.

The second section also analyses key findings on stakeholder integration and the underpinning forces driving stakeholder involvement in the governance of climate change policies in cocoa. The Integrated Public Governance Theory as advanced by Goodsell (2006) is adopted to broaden understanding of the driving forces of stakeholder networks and the governance of these relations in the policy process. This is consistent with the initial hypothesis and the conceptual underpinnings of this study which lays credence to the already established body of research that integrated stakeholder governance enhances quality decision-making, efficient implementation of climate change policies, and effective monitoring and evaluation. The traditional dominance of public bureaucracies gives way to a mutually reinforcing climate change governance regime in Ghana's cocoa sector where public, private and third-sector players' contribution is recognized (Mondelez International, 2013; Musah-Surugu et al., 2019b).

In the third section, the findings on the significance and barriers to comprehensive stakeholder integration in the governance of climate change policies are further explored through succinct analysis and discussions. This chapter equally draws insights from the Integrated Public Governance theory as the main theoretical underpinnings and the conceptual framework of this study to establish a more simplified nexus between the findings of this study and research questions as well as existing literature. The chapter highlights that climate change remains a complex global crisis and requires a complex governance architecture that holistically integrates all relevant stakeholders. In this regard, the chapter observes that the relationship between all relevant actors and institutions

produces optimal net-benefit in situations where such relationships hinge on mutual trust and commitment towards the course of CSC.

Analysis of the various contestations and points of departure on the ongoing climate change policy discussions within the cocoa subsector is explored further in this chapter. Findings from this study and existing literature espousing divergent viewpoints which are relevant to this study are further discussed to draw meaningful conclusions.

8.1 Governance of Climate Change Policy in the Cocoa Sector

As indicated by Fröhlich and Knieling (2013), climate change has been described as a ‘wicked problem par excellence’ due to the interconnected nature of the climate issue and the impact it exudes on humanity and economies. Managing this complex, unstructured and highly complicated global crisis demands requisite governance and policy capacity which pays close attention to stakeholders and institutions. Similarly, there is a pressing need, currently, more than ever, to break the ‘business-as-usual’ governance approach and adopt a more sustainable and integrative approach (Bruneniece & Klavins, 2011). This is against the backdrop that climate change complexities call for precautionary measures to anticipate and reduce the adverse effect of this global environmental challenge. This also calls for comprehensive and strategic sectoral coordination and a complex interrelation among critical stakeholders at all levels.

Such systematic and elaborate climate change governance processes and stakeholder integration approaches produce environmental soundness and sustainable development. This also serves as a recipe for minimising the risk associated with climate change as well as maximising the net benefit (Bruneniece & Klavins, 2011; Fröhlich & Knieling, 2013).

Climate change continues to receive considerable scholarly attention considering the severity of the climate crisis and its relative impact on virtually all economies of the world. However, the enormity of the impact on the agricultural sector of developing economies appears to be different as compared to that of developed economies (Agrawal, 2010; Bulkeley et al., 2012; Mondelez International Progress Report, 2015). An extensive body of research evidence including Boon and Ahenkan (2012) shows the massive contribution of the cocoa subsector to the Ghanaian economy through foreign exchange, income generation and job creation among others, although climate change continues to affect the fortunes of the subsector.

Notwithstanding this, the governance of climate change policies and their related dynamics are rarely studied with specific reference to the cocoa subsector of a developing country. This study serves as one of the limited yet novel exceptions which focus on the nuances inherent in the governance of climate change policies in Ghana's cocoa sector. This subsection of the chapter presents an analysis and discussion of the first research objective bothering on the governance of climate change policies in the cocoa sector. This harks back to the central position that the way policies are managed from the agenda-setting stage, through to their adoption and implementation tends to have varied ramifications on the efficacy of the policy, in terms of the implementation outcomes. This observation is in concord with the claims of Essegbey, et al. (2016) that climate change policy and institutional context are critical in delivering expected adaptation and mitigation measures.

As noted in chapter six and other sessions of this study, Ghana has increased the presence of climate change-related policy interventions and existing institutional frameworks established to champion the implementation process of major priorities and objectives of

the government. This is consistent with the position held by Knieling and Leal Filho (2013) that climate change governance rests on institutional strengthening, formulation of strategic policies as well as management and accountability systems for tackling the effects of climate change. In this regard, this study argues that the Coordinated Programme of Economic and Social Development Policy, Reducing Emissions from Deforestation and Forest Degradation Strategy (REED+), Ghana's Fourth National Communication to the United Nations Framework Convention on Climate Change and Ghana's Intended Nationally Determined Contribution are all climate-relevant policies in Ghana.

This idea is for Ghana to cooperate in preparing for adaptation to the impacts of climate change, develop appropriate and integrated plans for coastal zone management, water resources and the use of agricultural land, and for the protection and rehabilitation of areas affected by drought, as well as floods (Boon & Ahenkan 2012; Republic of Ghana, 2015). Whilst already faced with multiple stressors, the onset of climate change factors impinges on sustainable development that relies on climate-sensitive sectors and alters the distribution and quality of food, natural resources and the environment associated with urbanisation, industrialisation and economic development (Connick & Innes, 2001; Al-Amin et al., 2013; Mondelez International & Cocoa Life, 2013).

The study, therefore, observes that Ghana's National Climate Change Policy, the National Climate Change Adaptation Strategy (NCCAS), the National Action Program to Combat Drought Desertification, and the UNFCCC Initial National Communication on climate change were all existing national climate change policies in Ghana, as revealed by the study. The study points out clearly that these policy strategies and its related institutional set-ups presents the steering mechanisms for sustainable management of climate change in

Ghana. According to Obeng and Agyenim (2013), it is clear that diverse institutional approaches are employed in mitigating these effects of climate change at the national and local level as well as the public and private sector. This study finds out that institutional architecture has gone further from the public to private to the thirds sector as well as community-level to adapting to climate change.

The elaborate nature of the policy governance architecture is in response to the complexities associated with the climate change crisis. This is similar to the views expressed by Meadowcroft (2009.p28) that “climate change governance requires governments to take an active role in bringing about shifts in interest perceptions so that stable societal majorities in favour of deploying an active mitigation and adaptation policy regime can be maintained”. It is therefore safe to argue that sustainable management of climate change thrives a governance architecture that favours the establishment of policies, availability of the right institutional commitments and the presence of collaboration from all actors. Adu-Boateng (2015) observes that the existence of a plethora of climate change policies alone does not produce an optimal net-benefit for the attainment of sustainable development.

This study attempts to extend these discussions by contending that climate change policies perform better only when they are properly aligned with relevant climate change policies at the international level, national level, and local level. This study shows that merely bundling policies around without clear policy prioritisation and congenial policy alignment has the potential of not producing the requisite CSC interventions needed for effective adaptation and mitigation in Ghana’s cocoa subsector. Climate change governance requires a wide range of coordinating structures and methods to contribute to sustainable

management (Knieling & Leal Filho, 2013; MESTI, 2013; Republic of Ghana, 2020). Climate change policies alone appear not to sufficient for the sustainable management of climate change issues, unless there is an overarching strategy and attempt to align institutional commitments to these policies.

Antwi-Agyei et al. (2018) observe that policy alignment in Ghana has been an ongoing mechanism with numerous evidence. However, the attempt for strong climate change policy alignment is quite novel within the cocoa subsector and further entrenches the discussions in the relevant research literature that previous studies have failed to show much interest in. This study views the current climate change policy ecosystem in Ghana as both elaborate and exhaustive but only requires strong policy alignment for such policies to enhance the climate-resilient cocoa sector. Strong climate change policy alignment enhances strategic policy interaction among sectoral actors, and engenders coordination and policy acceptability and implementation as revealed by Ostrom (2010).

This study interrogates the processes of climate change policy development in Ghana and further investigates how international climate conventions and commitments shape the policy formulation and implementation regime in Ghana. The findings of the study highlight that although normal policy processes prevail for all public policies, the policy enactment processes for climate change appear to benefit from broad ratifications and domestication of international climate consensus, considering the global nature of the climate crisis. This position is in tandem with the debate surrounding the various governance dimensions which makes it clear that contending national interests and conflicts are reflected in international climate policy, which has led to the creation of a

detailed set of regulations with numerous unsettled points and special national arrangements.

Hence, national climate change policies receive inspiration from international agreements and further contextualise climate change concerns to resolve the climate constraints of a particular nation. The position of this study is affirmed by Sarpong and Anyidoho (2012) that Ghana's climate change policy process tends to exemplify a strong interplay of external and internal discourse where domestic climate change policy formulation receives strong inspiration from international climate change policy positions. For instance, the Hyogo Framework specifically identifies the need to promote the integration of risk reduction associated with existing climate variability and future climate change into strategies for the reduction of disaster risk and adaptation to climate change. At the national level, such commitments are firmly integrated into climate change decisions to ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation; identify, assess and monitor disaster risks and enhance early warning; use knowledge, innovation and education to build a culture of safety and resilience at all levels; reduce the underlying risk factors; and strengthen disaster preparedness for effective response (Commission on Global Governance, 1995; UN, 2005; COCOBOD, 2015).

The public sector manages such relations between international (bilateral relations, multilateral relations) with other countries which include the cross-border aspects of climate change and international financing and cooperative mechanisms; participation in multilateral environmental agreements such as the UNFCCC, and its Kyoto Protocol, where political consensus could be reached only through successful policy dialogues and compromise between policy options (COCOBOD, 2000; Bruneniece & Klavins, 2011).

This study contends that the process of developing climate change policy goes through the usual policy process, which includes problem framing, policy formulation, policy implementation as well as monitoring and evaluation. In the same vein, Essegbey et al. (2016) affirm that the climate change policy process in Ghana appears somehow generic as it follows through the usual policy cycle.

The climate change policy process appears to be complex however beneficial for the strategic implementation of climate change initiatives and involves various degrees of interest due to its interactive nature, overlaps in terms of sectoral functions, and has interdependencies (Republic of Ghana, 2021). This indicates the necessity for a radical and new attitude in terms of approach to designing policy for such complicated and usually unstructured problems like climate change mitigation or adaptation. In doing so, this new governance framework requires a much more systemic approach to find common points of agreements and borders or parts of departure to take the correct remedial measures and effective actions on climate change adaptation and mitigation.

The study observes that climate change initiatives within the cocoa sector of Ghana remain a necessary condition considering the reduction in cocoa production by about 30% due to changes in climatic conditions. This study intimate that the main cocoa sector climate change initiatives used in governing climate change concerns are the Ghana Cocoa Forest REDD+ Programme (GCFRP) with other initiatives such as the Cocoa Rehabilitation and Intensification Programme, Cocoa and Forests Initiative Joint Framework for Action, Planting of shade-giving trees for shades for cocoa plants carefully aligned to the strategies of the GCFRP. This is to reduce forest-based emissions, recognising the long-term imperative to address the root causes of deforestation at the national level and to raise the

value of all the ecosystem services that forests and the cocoa sector afford (Al-Amin et al., 2013; MESTI, 2013; Republic of Ghana, 2021).

The study also revealed that other national policies and initiatives such as the GSGDA I and II, the National Forest Wildlife Policy, the NCCP, the National Climate-Smart Agriculture and Food Security Action Plan, the Ghana Cocoa and Forest Initiative National Implementation Plan, Ghana Forest Investment Programme, Low Emission Development Strategy are well-aligned to the GCFRP. Such harmonised and aligned climate change ecosystem creates a good atmosphere for sustainable development and environmental friendliness (COCOBOD, 1998; COCOBOD, 2000; MESTI, 2013). Contrary to this, the study shows that the overarching national climate change policies appear not to be well harmonised with other sectoral and institutional level climate change strategies. This creates a disjointed policy regime as far as the national climate change policies are concerned.

Consistent with the views of Ameyaw et al. (2018), the study shows that the climate change policies that are peculiar to the cocoa subsector appear to benefit from some form of good policy and institutional alignment mechanisms. The cocoa sector climate change policies consist of several key elements including objectives, principles, strategic thrusts and key actions, which are aimed at ensuring a climate-resilient cocoa development and low-carbon cocoa economy that fulfils national aspirations for sustainability. Based on the aforementioned policy proposition as evident in the findings of this study, it is safe to argue that irrespective of the policy alignment setback and other challenges, climate change is now top on the agenda of the Ghana government as highlighted in the various positions of multinational institutions like the United Nations.

The justifications advanced by Pereira and Subramaniam (2007) as well as Al-Amin et al. (2013) as consistent with the findings of this study is that climate change-related policies aim to facilitate the integration of climate change considerations into economic development decision-making processes and to foster sustainable economic and human development as environmental conservation for future generations.

According to the findings of this study, the essence of these elaborate climate change policies in Ghana and that of the cocoa sector can be synthesised as follows:

- building effective adaptation and mitigation strategies to enhance climate action and environmental friendliness,
- reducing emission which is often exacerbated through deforestation and degradation of forest reserves,
- collaborating with the business community and other industrial players to reduce carbon emissions through clean industrial production,
- enhancing green growth and climate-smart development in all spheres of socio-economic and ecological growth.

A critique of the governance of climate change policies points to the established position that its effectiveness hinges on strong budgetary commitment and requisite policy governance framework (Rosenzweig & Parry 1994; Sarpong & Anyidoho, 2012). This study draws attention to the fact that the implementation of climate change initiatives in Ghana tends to attract extensive external funding despite the visible national budget allocations as depicted in Table 5.3. The study further points to the sceptical nature of the reasoning informing the extensive external funding for climate change in Ghana's cocoa

sector. Contrary to this position, Meadowcroft (2009) holds the view that the global nature of climate change explains the extensive interest and funding by external actors.

Moreover, Bruneniece and Klavins (2011) indicated that the Bali Action Plan, adopted by UNFCCC Parties in Bali, Indonesia in December 2007, in this context calls for the consideration of risk sharing and transfer mechanisms, such as insurance to address loss and damage and other international agreements continue to inform such external financing options for climate change. Hence, the presence of numerous external supports as risk pooling and risk-transfer options for climate change concerns. This revelation hints at the need to institute good governance and financial responsiveness measures to ensure transparency and judicious utilisation of both external and domestic climate change financing mechanisms.

While it is clear that governance of climate change policy involves a complex interplay of policy process with external influence, there is also the presence and centrality of stakeholder consultation and integration in the governance of climate change policies in Ghana (Sarpong & Anyidoho, 2012; Statistica, 2016). There are however divergent views as to whether stakeholder integration is real or cosmetic as revealed by the findings of this study. The fundamental position of this study is that healthy stakeholder integration has an overt implication on the efficacy of CSC interventions as compared to ‘pseudo’ and ‘selective’ stakeholder integrations which tend to be counterproductive in some instances for the attainment of sustainable cocoa production in Ghana.

8.2 Reflections on the conceptual framework and how it underpins the findings of this study

This study has found that consistent with the conceptual framework as depicted in Chapter two, climate change governance in Ghana tend to involve stakeholders from the public sector, private sector, third sector and community-based actors. The conceptual framework contextualizes that effective governance of climate change calls for comprehensive involvement of various actors with different interests, intentions and demands. Consistent with this position, this study observes the integration of state-level MDAs, international public corporations, and local government institutions among others from the public sector whose interest is to pursue statutory mandates and uphold national interests. As revealed by the conceptual framework and consistent with the findings of the study, private sector actors such as international private companies operating in Ghana, local private companies, and other business sector players who exist to ensure profit maximization and sustained economic interests as well as meeting customer expectations were seen to be integrated in the governance of climate change policies in Ghana's cocoa sector. Also, third sector players such as international and local level think tanks, NGOs, CSOs and other third sector players as shown in the conceptual framework were found to be actively involved in the governance of climate change policies in Ghana's cocoa sector by ensuring civil and social justice, citizenry rights and environmental protection as revealed by the findings of the study. Community-based actors such a traditional authorities, religious groups, organized local groupings such as youth groups, market associations, and town-square leaders as espoused by the conceptual framework were found as key players in the major findings playing significant role in engendering sustainable local livelihood and the preservation of

local habitat for future generation. The findings of this study as shown in the various chapters is clearly underpinned by the conceptual framework as evidence from this study shows that the traditional state-centric controls and public bureaucracies appear to have paved the way for a more integrated and inclusive governance framework across all fabrics of the policy governance process. The conceptual framework underpins the findings of the study to the extent that this study indicates the cosmetic and superficial nature of the stakeholder integration architecture with a semblance of ‘he who pays the piper calls the tune’ atmosphere in Ghana’s cocoa sector.

The next subsection (8.2) presents a discussion and analysis of stakeholder integration in the governance of climate change policies in Ghana and its underpinning forces.

8.3 Stakeholder Integration and Underpinning Forces: Perspectives from Integrated Public Governance Theory

Climate change in Ghana’s cocoa sector is no more an abstract endeavour, but real and lived for most of the cocoa-growing communities. Therefore, the correct mix of different voices, actions and ambitions from multi-stakeholders across levels and sectors is needed to remedy the already worsened climate situation. Obeng and Agyenim (2013:185) indicate that the effect of climate change in transitional economies such as Ghana stands to be exacerbated by the excessive dependence on natural resources, poverty, weak technical and organisational capacity and potential socio-cultural resistance to scientific and technical adaptation mechanisms. Hence, an integrated governance framework where all necessary stakeholders are fully integrated offers the requisite remedial measure. Consequently, comprehensive and coherent stakeholder integration remains critical for reduced

deforestation, positive carbon growth, as well as minimised degradation within all facets of the Ghanaian cocoa subsector.

The idea is that complexities in present-day challenges will mean that absolute monopolistic tendencies by state-led institutions alone may not be adequate in addressing those complex problems unless through broader stakeholder engagements (Brasser, 2013). This finding of the study is consistent with the findings of the EU's ADAM project which categorically observed that "Global climate policy beyond 2012 requires a strong, integrated governance architecture that involves both public and private actors and that provides a regulatory framework on both mitigation and adaptation. Highly fragmented global climate governance is likely to be more costly, less effective in terms of environmental goals, and less equitable regarding smaller countries, particularly in the global South" (Hulme et al., 2009:20).

This subsection presents discussions and analyses on stakeholder integration and the underpinning forces driving such an integration process in the governance of climate change policies in Ghana's cocoa sector. Hence, this subsection is divided into two clear parts. The first part of the subsection bothers on the discussion on the integrations of diverse stakeholders ranging from the Public Sector, Private or Business Sector, and Third Sector stakeholders and the involvement of other Community-based informal actors. The second part presents analysis of the underpinning forces driving the involvement of various stakeholders in the governance of climate change policies in cocoa.

8.3.1 Stakeholder Integration Dynamics

The contemporary governance approach is anchored on broader stakeholder interactions where different actors within a multi-layered, cross-sectional and diverse jurisdictional context participate in creating public value for citizens. Through this medium, actors from government, business, NGO sectors and even local communities present an independent interfaces that interacts keenly towards addressing eminent social constraints. The cross-sectoral and multi-level nature of the climate crisis makes it imperative for multiple actors to be involved holistically (Brasser, 2013; Fröhlich & Knieling, 2013). As established in the extensive literature review in chapter two and chapter three, stakeholder integration shapes the governance of climate change policies in Ghana's cocoa sector and engenders the attainment of CSC. That is, the variations in perspectives of the various stakeholder groups and the multiplicity of interest wielded by actors in the cocoa sector make it necessary for CSC interventions to involve all relevant actors.

This allows for a variety of approaches and strategies towards confronting climate change impacts in the cocoa sector. The findings of this study postulate a complex interplay of three main stakeholder groups with an additional informal community-based actor that locks horns in a perfect governance climate to offer sustainable cocoa production in Ghana. This integrative stakeholder governance architecture is manifested throughout the policy processes as opined by Kickbusch and Gleicher (2012) and adequately supported by Marks (2014). The ramification of broader stakeholder involvement remains apparent as it frustrates consensus building, slows the option for climate action and impedes outcomes. However, effectively informing climate change policy, and enhancing adaptation and

mitigation requires public sector regulation, private sector investment and third-sector structuring.

Analysing this through the lens of Integrated Public Governance theory, this study observes an interplay between actors from the public sector, private sector, and third sector as well as identified community-based informal actors. The study observes that interaction between various sectors tends to be multisectoral and multi-layered depending on the level, sector, and underpinning interest of each stakeholder within the network of actors. Adopting the Integrated Public Governance theory, this study reveals a complex mix of a network of actors in the governance of climate change policies. This study highlights the interactions and balancing-off of broader and multiplicity of stakeholder interests through the integration of diverse actors in mainstreaming climate change adaptation and mitigation measures in the cocoa subsector.

Klink (2007) indicates that highly fragmented governance arrangements in developing countries make efficient planning, management, and climate change provision a difficult and on-going challenge in many instances. According to Lefèvre (2007) and Marks (2014), climate change action, however, requires coherence and integration across all actors and levels of society. By developing strong institutions and integrated stakeholder architecture, developing economies stand the chance of enhancing their adaptive capacity and resilience to climate change not only in the cocoa sector but all facets of the economy. Through such governance and institutional frameworks, national-level leadership in formulating policies and legislation comes into tandem with regional and local-level leadership. This provides a strong stakeholder and institutional framework for dealing with the impacts of climate change.

At the grassroots levels, community strategies are developed with context-specific realities and with the full participation of community members to commit the grass root citizenry to take their climate change adaptation strategies into their own hands by cooperating with formal and informal arrangements put in place (McCarthy et al., 2001; Anim-Kwapong & Frimpong, 2010; Obeng & Agyenim, 2013).

Table 8.1 summarily discusses the stakeholder networks at the various sectors and corresponding institutions and their fit into the governance of climate change policies in Ghana’s cocoa sector.

Table 8.1: Sectoral Integration and Corresponding Institutions in Pursuit of CSC

	SECTOR INTEGRATION	CORRESPONDING INSTITUTIONS
A	Public Sector	MLNR, MESTI, MOFA, MoFEP FC, COCOBOD, EPA, EC, NADMO, MMDAs, PARLIAMENT
B	Private Sector	Olam, Touton, Mondelez Int Cocoa Life, Federated Commodities, BD AssociatesCocoa Merchants Ghana Ltd, Hamilton Resources and Consulting, PortalForest Estate, CPC, Kuman Koman Company, Armajaro/Ecom, Barry Callebant Co. Ltd, Unicom Co. Ghana Ltd, Cargill Ghana Ltd, PBC, Kuapa Kokoo Ltd.
C	Third Sector	Solidaridad, Rainforest Alliance, NCRC, Civic Response, A Rocha Ghana, Conservation Alliance, Agro Eco, Rise Ghana, GII, CAN Ghana, National House of Chiefs, Forest Forum, Cocoa Farmers Association, FORIG, CRIG, CERSGIS, WB, UNDP.
D	Community-based actors	Traditional authorities, religious groups, youth organizations, gender-based groupings, cocoa farmers’ cooperatives etc.

Source: Author’s Construct, 2022

The rationale for such broad stakeholder integration as highlighted by earlier studies and emphasised by the UNFCCC process is to increase public participation, application of sophisticated technologies, use of private sector market forces and strategies towards climate action (Magrath, 2006; ICCO, 2007; ISSER, 2014; LMC International, 2016). This is supported by the findings of the EU's ADAM project "Global climate policy beyond 2012 requires a strong, integrated governance architecture that involves both public and private actors and that provides a regulatory framework on both mitigation and adaptation. Highly fragmented global climate governance is likely to be more costly, less effective in terms of environmental goals, and less equitable regarding smaller countries, particularly in the global South" (Hulme et al., 2009:20).

At the international level, prominent milestones such as the 2014 COP 18 conference in Durban, COP 20 conference in Lima, 2015 COP 21 conference in Paris, Cop 22 at Morocco famously known as the 'Marrakech Partnership for Global Climate Action' among other has been postulated as initiatives aimed at accelerating action for climate action (Yamoah & Kaba, 2022). These combined efforts by multistakeholder networks from the public, private, third and community actors enhance sustainable development and productivity in all sectors of the economy and foster development across sectors and levels as revealed by this study.

8.3.1.1 Public-spirited Actors and Governance of Climate Change Concerns in Ghana's Cocoa

Following the sectoral integration and corresponding institutions in pursuit of CSC as indicated in table 8.1 above, this study attempts to extend discussions on sectoral

integration considering the surge in research interest on stakeholder perspectives and modes of integration in the governance of climate change policies in cocoa. Put succinctly, the approach towards addressing public problems requires broader stakeholder engagement across sectors and citizens (Anim-Kwapong & Frimpong, 2004; Obeng & Agyenim, 2013). The study contends that by doing so, citizens are regarded as problem solvers and co-creators of public value rather than being considered merely as voters or constituents of government intents. This point of departure from the traditional governance approach proves to be more sustainable in dealing with a complex social and environmental crises such as climate change in the cocoa sector.

As such, this study specifically observes MLNR, MESTI, MoFA, MoFEP, EPA, Ghana COCOBOD, Minerals Commission, Parliament, Forestry Commission, Cocoa Research Institute of Ghana (CRIG), and Forestry Research Institute of Ghana (FORIG) among others as the main state organisations that have been widely involved in the governance of climate change policies in Ghana's cocoa sector (GoG, 2011). Fung (2015) is of the view that the traditional role where these public-spirited bureaucracies lead in solving societal problems due to their constitutional mandate has experienced tremendous changes. This study postulates that mechanisms for attaining policy objectives lie in the creation of incentive structures and networks that builds cross-sector collaboration and pragmatically engages diverse stakeholders.

This is in line with the position of Denhardt and Denhardt (2015) that the design and implementation of policy objectives exclusively by government agencies are largely restrained within this emerging sphere of governance policy discourse as pointed out by the tenets of Integrated Public Governance theory. This study summarily argues that the

role of public bureaucracies in cocoa sector climate change governance has metamorphosed into a collaborative role and sometimes steers affairs by partnering with all relevant stakeholders throughout the policy process. Goodsell (2006) emphasised that the monopolistic tendencies of public sector ethos in addressing complex public problems such as climate change in contemporary times have moved on to embrace broader stakeholder integration.

8.3.1.2 Private Sector Stakeholders and Their Integration into Cocoa Sector Climate Change Initiatives

Effective climate change governance requires active integration of the business actors to fashion out-fitting solutions that are appropriate for business development (Anim-Kwapong & Frimpong, 2008; Anon, 2016; GIPC, 2017). Private sector involvement in the governance of climate change policies in cocoa is visible considering shocks associated with the complex climate crisis. The findings of the study show that private sector participation in the reduction of forestland degradation and deforestation within cocoa has been heightened after the 2010 Rainforest Project and the introduction of the GCFRP in Ghana's cocoa sector. In effect, climate change policy governance in Ghana's cocoa subsector has witnessed an increased preponderance of private sector activism, perhaps, more than all other subsectors within the broader agricultural sector (Anim-Kwapong & Frimpong, 2008; Antwi-Agyei et al., 2015).

The study further observes that this has emerged as a result of increasing deficits witnessed in the governance dynamics among state organisations and the need to spur up business interest in the management of public problems. The study shows that the GCFRP and other

initiatives are designed in a way to leverage the support from the private sector players such as Olam, Touton, Mondelez Int Cocoa Life, Federated Commodities, BD Associates Cocoa Merchants Ghana Ltd, Hamilton Resources and Consulting, Portal Forest Estate and CPC. Also, Kuman Koman Company, Armajaro/Ecom, Barry Callebant Co. Ltd, Unicom Co. Ghana Ltd, Cargill Ghana Ltd, PBC and Kuapa Kokoo Ltd. The justification is that creating sustainable public value rests on citizens' inclusiveness through a multi-stakeholder regime since the government sector is not the only sector charged with the public value creation mandate.

Put succinctly, Jørgensen and Bozeman (2007) emphasised that public value obligation is not a sole preserve nor an exclusive province of government and must be widened enough for broader stakeholder collaboration at all stages considering the complex nature of the climate crisis. It is often argued that private sector stakeholders bring to bear management systems that offer a hands-on approach where efficiency, technology, entrepreneurial leadership, competition, complete emphasis on inputs and output controls, efficient allocation of limited resources and prudent auditing systems are engrained throughout the cocoa sector climate change initiatives (Frederickson & Smith, 2003; Osborne, 2006; Ahenkan & Boon, 2010b; Boyte, 2011). The study highlights that the application of these mainstream private sector techniques holds enormous implications for public service within the current dispensation, unlike the traditional PA system.

This harks back to the already entrenched research position that comprehensive integration of the private sector techniques together with all the other sectors tends to offer a good platform for co-production of knowledge for dealing with climate change shocks.

8.3.1.3 Analysis of Third Sector Players' Involvement in Cocoa Sector Climate Change Initiatives

Aside from the public and private sector, the study aptly captures the indispensable role of third sector players such as voluntary groups, non-governmental organisations, civil society groups, interest groups and think tanks in the governance of climate change policies in Ghana's cocoa sector. Consistent with the position of Pestoff et al. (2012), this study discusses the integral role of third-sector actors in the contemporary governance system. The study intimated that key stakeholders within the third sector, tend to partner with the public sector and the profit-oriented sector players to ensure the smooth formulation and implementation of climate change initiatives. Findings of the study point out that third sector actors integrated into the cocoa sector climate smart interventions include Solidaridad West Africa, Rainforest Alliance, Nature Conservation Research Centre, Civic Response, A Rocha Ghana, Conservation Alliance, Agro Eco, Rise Ghana, GII, CAN Ghana, IITA, SNV, National House of Chiefs, Forest Forum among others as key in the climate change discourse.

This drives home the point that the third sector in every country plays a cardinal role in the governance of public affairs and must be held in high esteem as revealed by Denhardt and Denhardt (2015). The study views the role of third sector players in contemporary public governance circles as a complementary role that supplements the actions of the mainstream public and private sector. Third sector activism in the governance of climate change policies in Ghana's cocoa is evident through community integration and sensitisation, provision of voice for the voiceless in rural cocoa communities, pioneering state-of-the-art innovation and technology in cocoa, reducing child labour in cocoa, ensuring gender parity

as well as ensuring quality in climate change service provision. It is instructive to highlight that this sector involves both local and international actors; hence managing them must be conducted with tact and strategy.

8.3.1.4 Community-based Informal Actors in the Governance of Cocoa Sector Climate Change Policies

Closely related to the role of the third sector players is the integration of the community-based actors in climate change initiatives in Ghana's cocoa sector. Extensive research evidence points out to the position that the community level will be of particularly great importance in the context of climate change governance and CSC initiatives (Agrawal, 2010). The rationale is that an issue as broad as climate change can only be extensively remedied through individual and collective actions (Caulfield & Larsen, 2002; Satterthwaite, 2008; Ahenkan & Boon, 2010b). Adger (2001: 1) even assumes that collective action for local climate protection is one of the essential, as-yet unexploited capacities of human societies. The results indicate that community-based actors in the governance of climate change policies are usually not formal and organised around cultural and community groupings to deliver climate justice in Ghana's cocoa sector.

These informal groupings such as youth groups, women associations, cocoa farmers' cooperatives, market square associations, religious groups and traditional authorities mobilise to represent the interest and stake of rural cocoa communities in pursuit of CSC initiatives. This study rightly observes that the complex climate crisis and its related socio-cultural constraints require complex thinking where key local stakeholders are broadly involved in the entire governance process. Consistent with the findings of this study, Fung

(2015) opines that the participation of community-based actors in the governance process helps in advancing effectiveness, legitimacy, and social justice in the climate change policies governance process. The study observe that intergenerational thinking is allowed by involving younger and older generation on critical climate change concerns.

However, questions about the difficulties in engaging all community-based stakeholders and the chances of reaching consensus through such huge numbers appear to be obvious. Contrary to the position of existing research, this study points out the complex but superficial nature of the climate change policy process and the existence of a semblance of a 'he who pays the piper, calls the tune' in the governance process. Even when community-based stakeholders are involved, this study contend that it was more to fulfil an obligation which has been framed to engender participatory process and enhance feedback generation from indigenous actors. This study argues forcefully that community-based actors' integration into critical climate change discourse is usually seen as second-hand. Also, the prevalence of power imbalances among various community-based actors and the broader stakeholder network creates difficulties for CSC interventions (Mendelsohn, 1998; McKay & Coulombe, 2003).

Therefore, minimizing these inherent power imbalances in the broader consultative framework tends to offer a useful avenue for reducing deforestation and sustainable cocoa production in Ghana. This study forcefully describes the rich indigenous knowledge which is generated from community-based actors as very beneficial towards the process of addressing community-specific climate crisis, hence the need to integrate these actors holistically. The essential role of community-based groups is emphasised concerning adaptation to climate change because because these actors possess the most accurate

information regarding the local environment and the living conditions of residents, as well as regarding conditions hindering or promoting environmental changes (Bruneniece & Klavins, 2011).

The overarching argument is that collective action at the community level carries the the potential for appropriate responses for climate change adaptation in the the cocoa context. Adaptation measures can take several forms: some actions are taken to reduce vulnerability to climate change; some involve spreading risk among a wider population (insurance); some involve eliminating activity or behaviour that causes climate change, and some involve moving vulnerable populations away from hazards. All these measures require the active integration of community-based actors. Moreover, this makes it easier to produce a detailed assessment of the consequences caused by climate change and the foreseeable consequences on the cocoa sector. This, in turn, presents an opportunity for developing plans of measures on a local scale and spatial plans, which would ensure adaptation of the particular territories to climate change, as well as preparing for risks caused by climate change expected in the future.

Regarding the role of cooperatives in climate change governance, the study underscores the position that cooperatives represent an opportunity to shape their local communities and environments while sharing resources, knowledge and economic power with their members. The general objective of any cooperative is to actively support its members through common efforts across various aims. According to Schroder and Walk (2013: 105) ‘with a rising number of new cooperatives in the sectors of energy, water, housing, construction, consumption and mobility explicitly referring to climate protection, climate-

related activities, in turn, have the potential to inject new life into the cooperative movement and to provide innovative, collective approaches to local climate governance’.

In much the same way, the International Cooperative Alliance emphasised that cooperatives “are based on the values of self-help, self-responsibility, democracy, equality, equity and solidarity” while their “members believe in the ethical values of honesty, openness, social responsibility and caring for others” (ICA, 1995). The study contends that cocoa cooperatives in Ghana create a congenial atmosphere for farmers to access credit and technical knowledge of climate change which contributes to sustainable cocoa production. The position is that through this principle of collective self-help, members of various cocoa cooperatives aim to make their own decisions on climate actions and have their responsibilities and autonomies while choosing collective ways of problem-solving on climate change. From the foregoing, it is crystal clear that community-based actors are inextricably associated with CSC initiatives as such actors assist variously in addressing sustainable development and climate adaptation measures.

Consistent with the position of this study, Schroder and Walk (2013: 110) strongly argue that community-based actors such as “cooperatives will become increasingly important for sustainable and cooperative solutions at the local level as they have the potential to spearhead new behavioural and social patterns of action, oriented towards more sustainable paths”. This study observes that increasingly, community-based actors are conceived as actors making civic involvement possible in the governance of climate change policies in cocoa. Such citizen-centric tendencies have the potential to inject new life into CSC initiatives not only in Ghana but also in transitional economies where cocoa productive has

been hampered by climate change crisis. From the findings discussed above, it can be observed that community-based actors' involvement in governance of climate change:

- address various socio-cultural, economic and environmental constraints that are associated with long-term solutions for climate change concerns to the benefit of community members.
- expedite collective and individual transition for CSC and overall climate action towards sustainable cocoa production through shared responsibility.
- Enable knowledge sharing, resource pooling and expertise transfer among group members in order to generate socially responsible and ecologically friendly CSC interventions.
- Allows for emancipatory dimension to CSC to be added considering the collective decision-making processes with social organizations in various communities.

The centrality of the arguments puts forward so far, presents a pluralistic constellation of stakeholders as the ideal framework required for the governance of climate change policies. This pluralistic constellation of stakeholders transcends the frontiers of the cocoa subsector into virtually the entire climate change governance frontier, considering the extensive nature of the climate crisis. Bryson et al (2014) posit that in both traditional PA and NPM, government or state agencies possess the absolute power and constitutional mandate to control, steer and lead other actors through the policy design and governance process. Should this relationship be allowed in contemporary governance and emerging approaches? Scholars such as Rhodes (1996), Cleveland (2002) and Bryson et al. (2014) settle this puzzle by emphasising that in a multi-stakeholder regime no-single-actor-wholly controls or leads the governance process.

In this regard, an integrated governance regime affords all key stakeholders the unique power and opportunity to control or lead the governance process where necessary without any fixed power for a single stakeholder. Put succinctly, Crosby and Bryson (2005) highlighted that leadership and control for the common good in contemporary governance framework are shared among all actors depending on prevailing conditions such as expertise, indigenous knowledge, existing technology and innovation, regulatory restrictions and provision of resources among many others. The holistic integration of all stakeholder networks from public, private, third and community-based actors in the governance of cocoa climate remains imperative considering the new wave of governance which is christened as post-NPM.

In the same vein, Goodsell (2006) argues that this contemporary approach of self-organising interactions among public, private, and voluntary agencies appears to be the new paradigm for solving social constraints. This interaction is often driven by shared interest and common focus which is usually carried through prudent communication sustained negotiation and exchange of expertise. Through the lens of the Integrated Public Governance theory, this study underscores the fundamental position that the traditional monopolistic controls enjoyed by the government are presently being defused since the role of the public sector keeps changing from the catalyst, convener to partnering and steering in certain cases considering the complex nature of the contemporary crisis. This has undoubtedly paved the way for a pluralistic constellation of diverse stakeholders for the governance of climate change policies.

This governance architecture as evident in the findings of this study tends to raise climate change awareness and increases citizens' participation to promote behavioural response to

climate change. moreover, integrated response towards strengthening resilience for current and future environmental conservation is also enabled by all actors across various sectors and levels of governance. There is however an urgent call for the harmonisation of existing policies to address climate change adaptation and mitigation in a balanced manner to ensure sustainable climate action (Frederickson & Smith, 2003; FAO, 2005; Farook & Kannan, 2016).

8.3.2 Forces Driving Stakeholder Integration

Effective and long-term solutions for climate change must be anchored in an integrated governance approach which acknowledges the respective roles and contributions of a wide array of actors. The collaborative intervention of key actors emerging from the various sectors is underpinned by several covert and overt reasons. Kickbusch and Gleicher (2012) highlight that tackling complex societal constraints cannot be successful unless through broader stakeholder collaboration which is certainly backed by a certain undercurrent of interest. The study indicates that forces driving stakeholder integration are informed by the interdependent nature of the contemporary climate change problems and the diverse nature of its effects. The interdependence and multifaceted nature of this challenge make it imperative for remedial measures to be collaborative, participatory, integrative, and multi-level (Ostrom, 1990; Elliott & Salamon, 2002; Agranoff & McGuire, 2003; Agrawal & Lemos, 2007).

Emerson et al. (2012) posit that the complexity associated with the climate change menace tends to be a major driving force for stakeholders to collaborate. The climate change challenge is cross-sectorial and affects virtually all industries, regions, nations and

communities hence, the existence of a diverse body of actors. Agranoff and McGuire (2003) corroborate this earlier position by emphasising that multi-level stakeholder involvement is driven by the urgency to address the complex crisis which cannot be addressed easily by a single sector.

First and foremost, the study opines that the quest to satisfy internationally agreed requirements as enshrined in international-level consensus tends to shape stakeholder integration in Ghana's cocoa. The findings of the study show that the involvement of stakeholders, in the design of cocoa sector climate change initiatives is to conform to international conventions and agreements. For instance, the study reveals that the Bali Action Plan requires all REDD+ nations to adhere to a strong stakeholder integration scheme in the formulation and implementation of their respective REDD+ action plans. In much the same way, the COP16 agreements, Environment and Social Standard Ten (ESS10) of the World Bank and Kyoto Protocol of the UNFCCC in its Article 2 also task member countries to fully integrate all relevant stakeholders especially, local actors in the management of climate change issues at all levels of the process.

To a large extent, the domestication of these international accords comes with stakeholder integration clauses, hence, the involvement of various networks of actors (EPA Policy Advice Series No. 1 2012; Ellis et al., 2013). Caputo et al. (2017) affirm the observation of this study by indicating that international climate change agreements push for climate change policy governance to be holistically integrative. Stakeholders' buy-in and consensus-building are critical components for mitigating and adapting to the impact of the complex climate crisis in cocoa. Secondly, the study cites the need to build consensus and receive the buy-in of key stakeholders in the governance of climate change policies as one

of the underpinning forces driving stakeholder involvement. Similarly, Amadou et al. (2015) support this view by espousing that stakeholder integration in the governance of climate change policies is to allow for a wider group of key actors to accept the need for CSC.

The anticipation is that through stakeholder engagement, coercion and manipulation give way for other interested parties to willingly engage. This is in concord with the position espoused in post-NPM discourse that the unquenchable need for co-production of knowledge between multiple stakeholders on tackling key national issues such as climate change concerns necessitates comprehensive engagement. There appears to be a dominant indication that active stakeholder integration allows for stakeholders wielding opposing views to equally have their say in the governance of climate change policies. The findings of this study reveal the likelihood of dominant voices influencing the policy direction in cases where opposing concerns are not tolerated. Kumi et al. (2020) highlight that broader stakeholder is meant to reduce the domination of the most influential actors in the governance of climate change policy at the expense of less privileged stakeholders.

This allows for stakeholders wielding opposing views to equally have their say in the governance of climate change policies and to contribute meaningfully towards CSC in Ghana. Moreover, the study intimated that the integration of a range of stakeholders from all sectors is in fulfilment of Article 21 (1) (f) of the 1992 Constitution of Ghana, which recognises access to information and stakeholder participation as critical to national development. Public sector actors pursuing statutory mandates and upholding national interests choose to engage other stakeholders to achieve their core mandate. The study avers that key legislations such as the Environmental Assessment Regulations, 1999 (LI

1652) enjoin key stakeholders to uphold the integration of all actors in the management of climate change issues in Ghana.

Regarding the rationale for private sector stakeholder involvement by the public sector, the study pointed out the need to motivate resource sharing from the private sector stakeholders, since the public sector cannot entirely finance the initiatives. Contrary to this view, the findings of the study indicate, for instance, that CSOs, NGOs and think tanks; are integrated into the governance process due to their role in promoting awareness, transparency, and accountability on climate change concerns. Largely, third-sector stakeholders are pushed to collaborate considering the need to ensure civil or social justice, citizenry rights, and environmental protection among others. The study avers further that these 'trio-drivers' of interdependence, co-production and complexity are as a result of the dynamic, complex, and relational nature of government's problems in current dispensations which equally pertain to the cocoa sector and serve as key drivers.

However, the study contends that each stakeholder appears to be clothed with interest which is shaped by the power imbalances in the governance process. This study identifies and analyses the motivations and interests of the business sector to make a profit from their operations as the major deciding factor for their involvement in climate change issues in cocoa. Each stakeholder has a different level of interest, and the degree of the interest determines the ability of the stakeholder to influence the governance of climate change policies within the cocoa sector (Agrawal, 2010). The level of power wielded by the stakeholder determines the ability of that stakeholder to vary the outcomes of the process. This study replicates the existing evidence that public sector stakeholders have different power and interest as compared to the private sector and third sector stakeholders.

8.4 Significance and Barriers to Comprehensive Stakeholder Integration in the Governance of Climate Change in Ghana's Cocoa

Comprehensive stakeholder integration in the governance of climate change policies presents a plethora of advantages and disadvantages considering the systems and strategies involved in cocoa sector climate change. Within the cocoa sector, governance of climate change policies tends to engender effective decision-making, ensure consensus building, enhance grassroots participation, generate stakeholder buy-in and promote the sustainable application of best practices. Notwithstanding the benefits of stakeholder integrations, significant pitfalls in stakeholder involvement are equally visible (Thomas & Twyman, 2005; Agrawal, 2010). This session of the study, therefore, sought to examine the significance and barriers associated with comprehensive stakeholder integration in the governance of climate change policies within the cocoa sector of Ghana as well as measures for ramping over the barriers of stakeholder integration.

8.4.1 Significance of Comprehensive Stakeholder Integration

Agranoff and McGuire (2003) observe that the traditional state-centric controls and public bureaucracies appear to have paved the way for a more integrated and inclusive governance framework across all fabrics of the policy governance process. In much the same way, the complexities associated with climate change and its attendant policy governance processes underscore the essence of a broader interactive phenomenon. Consequently, broader stakeholder integration has diversely benefited the governance of Ghana's cocoa climate change policies. Stakeholder integration contributes to improving diversity and equitable inclusion of marginalised groups in climate change decision-making and implementation.

Also, relations between diverse stakeholder networks tend to enhance transparency and acceptability of formulated policies and reduce potential disagreements during the implementation of climate change policies in Ghana's cocoa subsector. The view that extensive stakeholder inclusion causes an extensive delay in decision-making may appear contentious because broader stakeholder integration aims at attaining policy effectiveness and not merely making decisions. The study further contends that stakeholder integration creates a congenial avenue for peer learning, the exchange of technical knowledge necessary for CSC. Implementation of climate change policies in rural cocoa communities is therefore smoothed as a result of the integration of key stakeholders from the public, private and third sectors as well as community-based informal actors.

The findings of this study are corroborated by the findings of Alhassan and Hadwen (2017) to the extent that effective stakeholder engagement enhances the coproduction of knowledge, sharing of expertise, and strategic enforcement of corporate decisions by all stakeholders. Similarly, Boon, Bawole and Ahenkan (2013) affirm this position by highlighting that climate change tends to affect the most vulnerable in society who have less power and low authority to exonerate themselves from such climate-related hardships. Hence, equitable and diverse involvement of these marginalized stakeholders allows for the less privileged to equally have their views captured in climate change decisions. This improves the quality of decisions made and ultimately engenders sustainable cocoa production and adaptation to climate change.

The significance of stakeholder integration as espoused in this study and affirmed by the existing body of research evidence is in clear tandem with the proposition of the theoretical underpinnings of this study (Integrated Public Governance theory). More importantly, this

study content that such a broader stakeholder integration platform allows for indigenous persons, low-income earners and local organisations, who are disproportionately affected by climate change constraints to have the inalienable right to contribute towards climate change initiatives and adaptation strategies. This enhances micro-level adaptation planning for local communities and their agencies which encourages a local-based approach to climate action. This study highlights that indigenous resources and assets that have the capability of enhancing resilience and climate justice are identified and earmarked through comprehensive stakeholder integration. In the long run, feedback from the community level is generated and required social capital is built for CSC.

8.4.2 Barriers to Comprehensive Stakeholder Integration

Deforestation and land degradation of forest reserves for cocoa production purposes appear to be endemic in rural communities. Issues such as illegal logging and artisanal mining in rural cocoa communities pose severe threats to the environment and this is usually not caused by rural community dwellers alone. Therefore, initiatives towards reducing the impacts of climate change need to be broad and integrative with the active involvement of local communities that are most affected by the impacts of climate change (CRIG, 2010). The study identified that stakeholder integration tends to enhance the smooth implementation of climate change policies in rural cocoa communities that receive the brunt of climate change impacts. Notwithstanding the significance of such a broad integrative process, the study avers that stakeholder integration faces barriers.

For instance, the dominance of elite groups and central control of powerful actors who appears to be experts in climate change and the quest to follow strict timelines on climate

change governance considering the critical nature of climate shocks continue to challenge stakeholder integration in climate change. Moreover, the difficulty in accessing and understanding credible climate change information and data is a deterring factor for stakeholder integration among many others. Antwi-Agyei et al. (2015) opine that certain stakeholder groups are ill-informed and not empowered enough to contribute meaningfully towards a science-biased concern such as climate change as a matter of immense concern. In instances where they are integrated, vulnerable stakeholders tend to function as secondary stakeholders who are mostly controlled by elites and technocrats.

This study puts out that elite groups and knowledgeable stakeholders tend to dominate the discussions to the disadvantage of vulnerable stakeholders who are most affected severally by the impact of climate change. This study observes that building consensus becomes difficult as a result of mistrust among key stakeholders and the need to adhere to legal requirements. This tends to frustrate the stakeholder integration process and causes unwanted delays in the entire process due to difficulties in consensus building as a result of divergent viewpoints as already highlighted by Totin et al. (2015). Overcoming these impediments is necessary as it slows the prudent implementation of sustainable climate change policies within Ghana's cocoa sector.

8.5 Ramping over the Impediments Associated with Stakeholder Integration: The Way Forward

Barriers such as the dominance of elite groups and central control of powerful actors, the quest to follow timelines on climate change governance and the difficulty in accessing and understanding credible climate change information and data as well as the non-involvement

of certain critical stakeholders tend to deter stakeholders from effective integration. To this end, overcoming barriers to CSC remains imperative considering the devastation caused by climate change to the cocoa sector (CRIG, 2010; Agrawal, 2010). Given the driving forces, significance and barriers as well as dynamics of stakeholder integration in Ghana's cocoa sector, this study posits that key issues such as frequent capacity building for all stakeholders are key in whipping up the interest of all actors towards CSC. For more enduring consequences and a reduced impediment, this study suggests the nurturing of a sense of belongingness for all stakeholders to engender a sense of ownership and esteem allegiance for CSC.

The study views the need for communicating climate change timelines, core project targets and free access to credible climate change data essential to CSC initiatives in Ghana. Frequent monitoring and evaluation of climate change initiatives serve as game changer for achieving CSC. This is confirmed by the Antwi-Agyei et al. (2015); Boon, Bawole and Ahenkan (2013); Hadwen (2017) and Kumi et al. (2020) that ramping over the barriers of stakeholder integration demands technical capacity building, renewed position on climate change, access and use of credible climate data and the application of climate change technologies that align with international, national and local climate initiatives.

8.6 Conclusion

Having established how climate change governance in Ghana's cocoa sector plays out, this chapter analyzes and discusses the key findings of the study. The chapter highlights that climate change remains a complex global crisis and requires a complex governance architecture that holistically integrates all relevant stakeholders as already noted by

previous studies by Agrawal, 2010; Boon and Ahenkan, 2012; Bulkeley et al. 2012 that complex crisis calls for complex governance architecture. Consequently, it is observed in various sections of this study that Ghana has increased the presence of climate change-related policy interventions and existing institutional frameworks established to champion the implementation process of major priorities and objectives of the government. These policy frameworks exist at the international level, national level, and local levels as well as across all sectors of the governance ecosystem.

However, the study observes that the existence of a plethora of climate change policies alone does not produce optimal net benefit for the attainment of sustainable development unless all relevant policies, institutional establishments and the entire governance framework are well aligned with each other. To further observe the extent to which stakeholder integration plays out and how Integrated Public Governance theory manifests itself in contemporary governance of climate change policies in the cocoa subsector, the study observes that stakeholders from public, private, third sectors and the community level are involved. Akin to the position of Agranoff and McGuire (2003), the traditional state-centric controls and public bureaucracies appear to have paved the way for a more integrated and inclusive governance framework across all fabrics of the policy governance process.

This is consistent with the initial hypothesis and the conceptual underpinnings of this study which lays credence to the already established body of research that integrated stakeholder governance enhances quality decision-making, efficient implementation of climate change policies and effective monitoring and evaluation. The traditional dominance of public bureaucracies gives way to a mutually reinforcing climate change governance regime in

Ghana's cocoa sector where public, private and third-sector players' contribution is recognised. There are however scepticisms as to the nature of their involvement as power imbalances and stakeholder interests vary from one stakeholder network to the other. The cosmetic and superficial nature of the stakeholder integration architecture outlook as far as climate change governance in the cocoa sector is concerned was evident.

This study contends that stakeholder integration in Ghana's cocoa sector tends to mimic a semblance of 'he who pays the piper calls the tune' which may be counterproductive for CSC if remained unchecked. The chapter assesses the significance of stakeholder integration to be enormous and includes peer learning, exchange of technical knowledge necessary for CSC, diversity and equitable inclusion of marginalized groups, transparency and acceptability of formulated policies among others. Effective stakeholder engagement enhances the coproduction of knowledge, sharing of expertise and strategic enforcement of corporate decisions by all stakeholders is ensured through broader stakeholder integration in CSC initiatives. Similarly, Boon, Bawole and Ahenkan (2013) affirm this position by highlighting that climate change tends to affect the most vulnerable in society who have less power and low authority to exonerate themselves from such climate-related hardships.

Hence, equitable and diverse involvement of these marginalized stakeholders allows for the less privileged to equally have their views captured in climate change decisions. Regarding the barriers to stakeholder integration, the study highlights the dominance of elite groups and central control of powerful actors who appear to be experts in climate change, the quest to follow strict timelines on climate change governance considering the critical nature of climate shocks and difficulty in accessing and understanding credible

climate change information and data serve as major impediments to CSC in Ghana. The centrality of the arguments puts forward, so far, presents a pluralistic constellation of stakeholders as the ideal framework required for the governance of climate change policies. This pluralistic constellation of stakeholders transcends the frontiers of the cocoa subsector into virtually the entire climate change governance frontier, considering the extensive nature of the climate crisis. The next chapter (nine) presents the summary and conclusion of key findings emanating from this study.

CHAPTER NINE

SUMMARY AND CONCLUSIONS

9.0 Introduction

Climate change is a complex global crisis with striking scientific evidence in all facets of human existence. The failure to adopt an appropriate long-term climate change policy governance regime would signify persistent deforestation and degradation of forest reserves, GHG emission and biodiversity loss with its attendant socio-economic and ecological constraints. Over the years, the Ghanaian economy has inevitably been linked to its cocoa production capacity, hence, the failure of appropriate climate change policy governance for the sector would have a dire impact on the entire economy. This study aimed at examining climate change governance and the nuances inherent in stakeholder integration in pursuit of CSC considering the high level of varied interest held by different stakeholders and its visible power imbalances.

The intellectual underpinning for this objective is the recent call for integrated public governance as postulated in post-NPM scholarly thinking and firmly grounded in research evidence supporting the move from traditional PA purposely in managing complex societal crises such as climate change. The emphasis for such a significant point of departure from traditional PA into post-NPM as evolutions in PA suggests, is the need to fashion out more plausible and transformative means of contending with the complex crisis with an unquestionable emphasis on the integration of a multiplicity of stakeholder networks as established in contemporary public policy discourse.

To empirically explore these propositions, this study gathered evidence from key institutional actors within Ghana's cocoa sector at both national and local levels to interrogate how governance of climate change policies take place and how the interplay of stakeholder networks from the public sector, private sector, third sector and community-based actors shape CSC discourse. CSC, as a contemporary environmental governance advocate, has significant implications for both the preservation of the global ecosystem and the sustainability of cocoa production in the case of cocoa-producing economies. This chapter of the study presents reflections on the key findings of the study in summary and their implications on the ongoing debate in public policy governance and climate change.

As evident in the various sections of this study, this chapter is modelled around the three interrelated research questions of the study, namely: How does the governance of climate change policy play out in Ghana's cocoa sector? What are the nuances inherent in the stakeholder integration, what forces drive the integration of stakeholder networks? and how do these forces shape the governance of climate change policy in Ghana's cocoa sector? What are the significance and barriers of comprehensive stakeholder integration in climate change policy governance within Ghana's cocoa sector?

Overall, this study reveals some emergent findings including the existence of a plethora of climate change policies earmarked for managing the complexities associated with the climate crisis in Ghana. However, weakness in strategically aligning these enormous climate-related policies persists not only in Ghana's cocoa subsector but the entire public policy ecosystem. The call for policy coherence and strategic alignment is therefore not far-fetched. The findings further reveal that climate change policies in Ghana are significantly shaped by international climate change accords, with contextual realities well

captured in such national climate change policies formulated so far. The domestication of these international climate change agreements and consensus rarely affects the efficacy of climate change policy implementation considering the global nature of the climate crisis, even though state sovereignty may be desired.

The pivotal stance of this study is that although the public bureaucratic architecture possesses the ‘birth right’ to manage all public problems, it may be factually inaccurate and overly ambitious to hold that the public sector alone can manage adequately climate change issues considering the nature and form of this global crisis. In this regard, the empirical findings of the study have adequately noted the integration of a broader network of actors from the public sector, private sector, third sector, and community-based actors as a potent governance approach for a complex crises such as climate change.

This concluding chapter first and foremost summarises key findings on the governance of climate change policies in Ghana’s cocoa sector. Secondly, the chapter presents reflections on stakeholder integration, driving forces, and nuances inherent in the integration of stakeholder networks in the governance of climate change policies. Lastly, the summary of the benefits and impediments of stakeholder integration in the governance of climate change policies in Ghana’s cocoa sector is presented in this chapter.

9.1 Summary of Key Findings

This study provides an enormity of key research findings as revealed through the rigorous analysis in chapter eight. The central idea is that addressing deforestation challenges, forest degradation in cocoa growing communities, sustainable forest management, solving illegal mining constraints as well as building community resilience in the fight against climate

change in the cocoa sector to a large extent rest on integrated public governance. This study stress that growth in cocoa production in Ghana needs to be decoupled from forest degradation and deforestation as these factors hamper CSC interventions. This table summarily illustrates key findings from this study at a glance with corresponding research questions underpinning the study.

Table 9.1 Research Questions and Key Study Findings at a Glance

Research Objectives	Research Questions	Summary of research finding
Investigate how the governance of climate change policy play out in Ghana’s cocoa sector.	How does the governance of climate change policy play out in Ghana’s cocoa sector?	<ol style="list-style-type: none"> 1. Climate change in Ghana’s cocoa sector is no more an abstract endeavour, but real and lived for most of the cocoa-growing communities. 2. Contrary to other public policies and existing studies, the domestic climate change policy process receives strong inspiration from international climate change policy positions. 3. The study cautions against excessive external control as far as state-level climate change initiatives are concerned. 4. A complex mix of diverse national, regional, local and sectoral climate change policies shape adaptation and mitigation initiatives. 5. There are limited policy alignment strategies and harmonization approaches for the plethora of national and sectoral climate change policies. 6. Climate change initiatives in Ghana tend to attract extensive external funding, despite the visible national budget allocations. 7. Consistent with earlier studies, this study observes that the climate change policy-making process

		<p>starts from problem framing to policy formulation, before policy implementation, as well as monitoring and evaluation.</p> <p>8. Micro-level climate change governance regime is yet to take the central stage.</p>
<p>Assess the nuances inherent in stakeholder integration and how stakeholder networks shape the governance of climate change policy in Ghana's cocoa sector.</p>	<p>What are the nuances inherent in stakeholder integration and how do these stakeholder networks shape the governance of climate change policy in Ghana's cocoa sector?</p>	<ol style="list-style-type: none"> 1. A correct mix of different voices, actions and ambitions from multi-stakeholders across levels and sectors is needed to remedy the already worsened climate situation. 2. Healthy stakeholder integration has an overt implication on the efficacy of CSC interventions as compared to 'pseudo' and 'selective' stakeholder integrations. 3. The role of public bureaucracies in cocoa sector climate change governance has metamorphosed into a collaborative role where state actors sometimes steer affairs by partnering with all relevant stakeholders from the private, third sector and community levels. 4. The traditional dominance of public bureaucracies in governance has paved the way to a mutually reinforcing climate change governance regime in Ghana's cocoa sector where public, private and third-sector players' contribution is recognized. 5. The complex mix of power imbalances, and varied stakeholder interests among all networks of actors exist due to the complex nature of climate change. 6. Contrary to earlier studies, this study indicates the cosmetic and superficial nature of the stakeholder integration

		<p>architecture with a semblance of ‘he who pays the piper calls the tune’ atmosphere in Ghana’s cocoa sector.</p> <p>7. Forces driving stakeholder integration include:</p> <ul style="list-style-type: none"> • The interdependent nature of the climate change crisis • The diverse nature of climate change, its cross-sectorial effects, and associated complexities. • The quest to satisfy internationally agreed requirements. • The need to build consensus and receive buy-in from key stakeholders. • The urgency to reduce the domination of most influential actors and elite groups. • The urgent need to scale up cross-sectoral climate action.
<p>Examine the significance and barriers of comprehensive stakeholder integration in climate change policy governance within Ghana’s cocoa sector.</p>	<p>What are the significance and barriers of comprehensive stakeholder integration in climate change policy governance within Ghana’s cocoa sector?</p>	<p>The significance of stakeholder integration is multi-faceted and includes:</p> <ul style="list-style-type: none"> • Enhancing quality decision-making, efficient implementation of climate change policies, and effective monitoring and evaluation of CSC initiatives. • Encouraging peer learning, a coproduction of knowledge on CSC, and exchange of technical knowledge necessary for CSC. • Allowing for diversity and equitable inclusion of marginalized and less privileged groups. • Improving policy legitimacy and social justice for climate change policies. • Generating sustainable climate action.

		<p>The barriers to stakeholder integration are multi-faceted and include:</p> <ul style="list-style-type: none">• the dominance of the influential elite groups and central control of powerful actors.• The quest to follow strict timelines and an international reporting scheme.• Difficulty in accessing and understanding credible climate change data due to its science-bias nature.
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Source: Author's Construct, 2022

9.2 How does the Governance of Climate Change Policy Play out in Ghana's Cocoa Sector?

As a 'wicked problem par excellence,' climate change appears to be interconnected and complex as it exudes its impact on both humanity and economies on the global, national and local levels (Fröhlich & Knieling, 2013). The Findings of the study posit that managing this complex, unstructured and highly complicated global crisis demands requisite governance and policy capacity which pays close attention to stakeholder networks and institutions across levels. Similarly, there is a pressing need, currently more than ever, to break the 'business-as-usual' governance approach and adopt a more sustainable and integrative approach where CSC interventions transcend macro and micro governance levels. Consequently, this study calls for a comprehensive and strategic sectoral coordination and a complex inter-relation among critical stakeholders at all levels and sectors.

The rationale as evident in this study is that such a systematic and elaborate climate change governance process and stakeholder integration approach produces environmental soundness and enhances sustainable development not only for the cocoa sector but all the sectors of the Ghanaian economy. The study reveals that this also serves as a recipe for minimising the risk associated with the climate change crisis as well as maximising the net-benefit. Chapter two of this study underscores the central argument that a complex global crisis requires complex governance architecture that holistically embraces all policy dimensions and takes into cognisance of other related public problems that are likely to exacerbate challenges caused (Pestoff et al., 2012; Denhardt & Denhardt, 2015; Fung,

2015). Central to this scholarly thinking is the need to understand how climate change policies emerge and their relations with the international climate change policy ecosystem.

Given the global nature of climate change and the international prominence placed on the climate crisis, the findings of this study indicate that, Ghana's national climate change policy formulation is largely shaped by the international consensus and commitments on climate change to which Ghana as a sovereign country is a signatory. The study observes that even though this may be contrary to the existing national public policy governance practices, the complex, diverse and multifaceted nature of climate change makes international interest very worthwhile. However, the policy process follows through the normal public policy process of Ghana and starts from problem framing to policy formulation before policy implementation as well as monitoring and evaluation.

The position of this study is affirmed by Sarpong and Anyidoho (2012) that Ghana's climate change policy process tends to exemplify a strong interplay of external and internal discourse where domestic climate change policy formulation receives strong inspiration from international climate change policy positions. Although the study demonstrates the significance of international climate accords in national climate change policies, it also cautions the need to guard against excessive external control as far as state-level climate change initiatives are concerned. Such interplay between international and domestic climate change policy ecosystems must not lead to 'micro-managing' of climate change initiatives in respective countries. Such tendencies might pose an adverse impact on Ghana's ability to fully contextualise the climate change governance process suitable for sustainable adaptation and mitigation.

The call for scholarly attention on the relations between international climate change policy governance viz-a-viz national climate change policies is therefore not far-fetched. The complex mix of diverse national climate change policies and sectoral climate change initiatives shape the adaptation and mitigation of climate change in Ghana. This reflection shows the impactful and complex nature of the climate change crisis and the need for a comprehensive governance approach across all levels and sectors as noted by existing studies by Agrawal (2010); Boon and Ahenkan (2012) and Bulkeley et al. (2012). As observed in various sections of chapter five, Ghana has increased the presence of climate change-related policy interventions and existing institutional frameworks established to champion the implementation process of major priorities and objectives of the government.

This serves as a critical step towards enhancing climate change adaptation and mitigation in Ghana. This position diverges from the central argument of Harrison et al. (2012) that merely formulating different policies for a particular public problem does not necessarily produce public value. However, it is important to initiate the right policy alignments that have been consciously created for such policies to produce optimal net-benefit for the attainment of sustainable development. Such policy coherencies engender smooth implementation of climate change policies and offer optimal climate action across sectors and levels. This corroborates the already institutionalised scholarship position by Antwi-Agyei et al. (2017) that climate policies in Ghana tend to experience limited or partial alignment, hence their inability to foster sustainable adaptation promptly.

This study favours the imperative for comprehensive climate change policy alignment across all levels and sectors in Ghana to create public value, proper adaptation, and mitigation measures and further advocate for future scholarly attention in this regard. The

enduring contestation of the politics of aid and external financing in the pursuit of development and specifically climate justice persists among many developing countries such as Ghana. This study shows that overreliance on external funding creates a dependency syndrome which sometimes prevents sovereign nations from fully asserting themselves. Consistent with the research position of Musah-Surugu, Ahenkan and Bawole (2019), this study opines that the implementation of climate change initiatives in Ghana tends to attract extensive external funding despite the visible national budget allocations.

The study further points to the sceptical nature of the rationale behind the extensive external funding for climate change in Ghana's cocoa sector considering the visible interest by external businesses and private corporations. Indeed, the international business interests of private sector players within the chocolate industry also play a cardinal role in the configuration of climate change-related aid and funding in Ghana's cocoa sector. Ultimately, expanded domestic financing for climate change issues in the cocoa sector is desired for more independent and sustainable CSC interventions in the medium to long term. Moreover, micro-level governance of climate change policies, where community interest and participation are encouraged tend to enhance sustainable governance of climate change for locals who are diversely affected by the negative impacts of climate change.

The centrality of the scholarly thinking informing this study is that traditional public sector activism alone does not offer sustainable climate action unless it tires in with critical stakeholder networks from the private sector, third sector and community-based actors as highlighted in the various sections of this study. This study underscores the striking fact that community-based actors, no matter how small, can be efficient and purposeful in the governance of climate change.

9.3 What are the Nuances inherent in Stakeholder Integration and Forces Driving such Integration of Stakeholder Networks?

Opening up the policy governance space for a multiplicity of stakeholder interaction increases acceptance, knowledge, and ease of implementation for climate change initiatives. The monopolistic tendencies of public sector ethos in addressing complex public problems as exhibited in the historical era of traditional PA have been long proven by an extensive body of research evidence as unsustainable in contemporary times. This study suggests that significant transformation and evolutions in PA have since created a regime of broader stakeholder integration among a network of actors ranging from the public sector, private sector, and third sector as well as community-based informal actors in the governance of climate change policies in Ghana. The reflection from the empirical data shows that healthy stakeholder integration has an overt implication on the efficacy of CSC interventions as compared to ‘pseudo’ and ‘selective’ stakeholder integrations which tend to be counterproductive in some instances for sustainable cocoa production in Ghana.

This study summarily argues that the role of public bureaucracies in cocoa sector climate change governance has metamorphosed into a collaborative role where state actors sometimes steer affairs by partnering with all relevant stakeholders. To further observe the extent to which stakeholder integration plays out and how Integrated Public Governance theory manifests itself in contemporary governance of climate change policies in the cocoa subsector, the study observes that, akin to the position of Agranoff and McGuire (2003), the traditional state-centric controls and public bureaucracies appear to have paved way for a more integrated and inclusive governance framework across all fabrics of the policy governance process. This is consistent with the initial hypothesis and the conceptual

underpinnings of this study which lays credence to the already established body of research that integrated stakeholder governance enhances quality decision-making, efficient implementation of climate change policies and effective monitoring and evaluation.

It is instructive to add that in certain cases, the government stays out entirely to allow other actors to play the leading role due to their expertise and knowledge in CSC. The traditional dominance of public bureaucracies gives way to a mutually reinforcing climate change governance regime in Ghana's cocoa sector where public, private and third-sector players' contribution is recognized. There are however scepticisms as to the nature of their involvement as power imbalances and stakeholder interests vary from one stakeholder network to the other (Boon & Ahenkan, 2012). Perhaps, the need to caution such stakeholder integration process is timely, considering the potential of business interests of private actors to go contrary to the public interest. Despite the extensive presence and centrality of stakeholder consultation and integration in the governance of climate change policies in Ghana, there are however divergent views as to whether stakeholder integration is real or cosmetic.

Consistent with this, the cosmetic and superficial nature of the stakeholder integration architecture outlook as far as climate change governance in the cocoa sector is concerned was evident in the study. This study contends that stakeholder integration in Ghana's cocoa sector tends to mimic a semblance of 'he who pays the piper calls the tune' which may be counterproductive for the sustainability of CSC if remained unchecked. This is contrary to the propositions of key climate change policies such as the GCFRP and other CSC policy initiatives in Ghana.

As discussed in Chapter Eight (8), the integration of key actors emerging from various sectors and levels of governance is underpinned by several covert and overt reasons. The study reflects that forces driving stakeholder integration are informed by the interdependent nature of the contemporary climate change problems and the diverse nature of its effects. Thus, the interdependence and multifaceted nature of the complex climate crisis makes it imperative for remedial measures to be collaborative, participatory, integrative and assume multi-level stakeholder involvement (Ostrom, 1990; Elliott & Salamon, 2002; Agranoff & McGuire, 2003; Agrawal & Lemos, 2007). Moreover, the complexities associated with the climate change menace and its cross-sectorial effect of the climate crisis on virtually all industries, regions, nations and communities drive the integration of almost all actors.

Other drivers such as the quest to satisfy internationally agreed requirements as enshrined in international level consensus tend to shape stakeholder integration in Ghana's cocoa, the need to build consensus and receive buy-in of key stakeholders in the governance of climate change policies as one of the underpinning forces driving stakeholder involvement and the urgency to reduce the domination of most influential actors in the governance of climate change policy at the expense of less privileged stakeholders. This study has pointed out the need to motivate resource sharing and transfers of expertise from other stakeholders considering the inadequacies in the public sector in climate change initiatives. Again, the findings echo the 'trio-drivers' of interdependence, co-production and complexity resulting from the dynamic, complex and relational nature of the climate change crisis of the cocoa sector.

The findings corroborate earlier research positions by emphasizing that multi-level stakeholder involvement is driven by the urgency to address the complex crises which

cannot be addressed easily by a single sector. The need for the integration of diverse stakeholders as revealed by this study is succinctly supported by the position of the EU's ADAM project that: "Global climate policy beyond 2012 requires a strong, integrated governance architecture that involves both public and private actors and that provides a regulatory framework on both mitigation and adaptation. Highly fragmented global climate governance is likely to be more costly, less effective in terms of environmental goals, and less equitable regarding smaller countries, particularly in the global South" (Hulme et al., 2009:20).

The centrality of the arguments puts forward, so far, presents a pluralistic constellation of stakeholders as the ideal framework required for the governance of climate change policies. This pluralistic constellation of stakeholders transcends the frontiers of the cocoa subsector into virtually the entire climate change governance frontier, considering the extensive nature of the climate crisis. Obeng and Agyenim (2013) observe that by developing strong institutions and integrated stakeholder architecture, developing economies stand the chance of enhancing their adaptive capacity and resilience to climate change not only in the cocoa sector but all facets of the economy. Through such governance and institutional frameworks, national-level leadership in formulating policies and legislation comes into tandem with regional and local-level leadership.

This provides a strong stakeholder and institutional framework for dealing with the impacts of climate change. At the grassroots levels, community strategies are developed with context-specific realities and with the full participation of community members to commit the grass root citizenry to take their climate change adaptation strategies into their own hands by cooperating with formal and informal arrangements put in place.

9.4 What are the Significance and Barriers of Comprehensive Stakeholder Integration in Climate Change Policy Governance within Ghana's Cocoa Sector?

Analysis of the findings of this study reveals that the green cocoa sector is critical for sustainable production and hinges on broad stakeholder integration. Stakeholder integration enhances peer learning, the exchange of technical knowledge necessary for CSC, diversity and equitable inclusion of marginalized groups, and transparency and acceptability of formulated policies among others. Thus, effective stakeholder engagement enhances the coproduction of knowledge on CSC, sharing of expertise from all stakeholders and the strategic enforcement of corporate decisions by all stakeholders. The case in Ghana as affirmed by Yamoah et al. (2020) highlights that climate change tends to affect the most vulnerable in society who have less power and low authority to exonerate themselves from such climate-related hardships.

Hence, equitable and diverse involvement of these marginalized stakeholders allows for the less privileged to equally have their views captured in key climate change decisions. This creates the requisite opportunity for better access to first-hand experiences from indigenous Stakeholder integration engenders transparency and acceptability of formulated policies which ultimately reduces potential disagreements during climate change policy implementation. As demonstrated by this study, a broader stakeholder governance process in Ghana's cocoa climate helps in advancing effectiveness, legitimacy, and social justice in the climate change policies governance process. This is consistent with the view of Bunn et al. (2019) and Schroth et al. (2017) that stakeholder integration affects the quality of CSC decisions across all sectors and levels of the climate change policy process.

However, questions about the difficulties in engaging all stakeholders and the chances of reaching a consensus through such huge numbers appear to be obvious. Beyond the high sides of stakeholder integration, barriers to stakeholder integration exist and pose challenges in some instances. The study highlights the dominance of influential elite groups and central control of powerful actors who appear to possess a good level of expertise in climate change. The quest to follow strict timelines on climate change governance considering the critical nature of climate shocks amidst the international reporting schemes tends to undermine the integration of all stakeholders in CSC initiatives. Difficulty in accessing and understanding credible climate change information and data serve as major impediments to CSC in Ghana and call for pragmatic interventions as remedial measures.

9.5 Reflection on the Integrated Stakeholder Governance Framework as Conceptual Underpinnings

This section provides key reflections on the central and crosscutting debates on the integrated stakeholder governance framework serving as the underpinning conceptual framework guiding this research. It summarises how stakeholder interaction between state bureaucracies, private sector players, third-sector activists and community-based actors play out in the governance of climate change policies. It details the relationship between various networks of actors who interrelate with each other in the pursuit of sustainable cocoa production. This study summarily contends that integrated stakeholder governance is more necessary than ever considering the increasing turbulence caused by climate change in the cocoa sector. This is against the background that such an integrated stakeholder governance framework assists in building requisite resilience, and reduce climate change-induced hardship which allows for the forging of a sustainable future for

posterity. This section of the chapter highlights the extent to which the underpinning conceptual framework plays out in the attainment of the main research objectives as outlined in chapter one.

9.5.1 The Primacy of Public Bureaucracy viz-a-viz other Sectoral Stakeholders

Consistent with key highlights in Chapter Two, it was apparent that state bureaucracies tend to shepherd the governance of climate change policies throughout the policy process. The governance of climate change policies likewise other public policies has traditionally extolled the primacy of public actors in the policy process compared to other actors although this role is under transformation in contemporary governance literature (Meier, O'Toole Jr., & O'Toole, 2006). Thus, to settle on the exceptional role of the state actors, several research continues to show the primacy of state bureaucracies in areas of public interest, sector-specific effectiveness and productivity. Regulating other players within the governance space has also been long established as the core mandate of the public sector.

However, the changing roles of the erstwhile monopolistic public sector in the governance of public policies as a result of the emergence of a complex social crisis has surged the need to complex governance architecture. Worth noting is the fact that the changing role in governance does not render the public sector continually redundant in the process. The regulatory mandate of the public sector at the national, regional and local levels persists considering the interest of the public sector in upholding national interest. Berkes et al. (1991) provide an analytical distinction to an extent that the traditional state-centric controls and public bureaucracies appear to have paved the way for a more integrated and inclusive governance framework across all fabrics of the policy governance process.

Generally, key stakeholders such as central government institutions and international state corporations, local communities, local and international business enterprises as well as the third sector consciously organize for the governance of mutually beneficial social endeavour. This study questions the degree of effectiveness of public bureaucracies alone in managing complex public problems. It has been revealed in the various chapter of the study that complex public problems demand a comprehensive stakeholder integration outlook to effectively manage such challenges. A similar pattern has also emerged regarding managing climate change issues in Ghana's cocoa sector. These findings have observed that CSC calls for the holistic integration of diverse stakeholders' groupings who have established interests within the cocoa sector.

This is consistent with the position of Heywood's (2004) argument that the historical primacy of the public bureaucracy in solving public problems may not produce equal results in contemporary complex public problems. This study suggests for the active integrations of a broader stakeholder networks belonging to the public sector, private sector, third sector and community-based actors. Such configurations engender quality policy decision-making and considers marginalized groups into the policy process. The private or business sector actors from international, national and local levels who are usually preoccupied by profit maximization motifs and sustained economic interests tend to contribute their expertise, resources and competitive advantage towards climate change issues.

The private sector integration is critical considering the surge in the research literature on CSC and environmentally friendly approaches towards chocolate production (Naab et al., 2019). The study refers to the Public-Private Partnership (PPP) model as a dominant feature

in managing climate change issues in contemporary times and suggests the urgency to move beyond such partnership into integrating all relevant actors into the governance processes towards CSC. Private cocoa-buying companies and other business sector players combine forces with public bureaucracies and other players to ensure efficiency as shown in the literature on PPP. However, it emerged from the findings of the study that limitations exist throughout their integration process in certain cases and pose a counterproductive tendency if not resolved.

The study contends that the third sector actors such as think tanks, NGOs, CSOs and others with interests in the climate change management space. This ensures the merger of cross-sectoral competencies within the public, private and third sector be realised. As evident in the literature bothering on third-sector activism and consistent with the findings of this study, the third-sector players' interest is primarily geared towards ensuring civil or social justice, citizenry rights, environmental protection, knowledge sharing and empowerment of key actors (Birch & Whittam, 2008; Musah-Surugu et al., 2019). The findings of the study show that community-based informal actors who are usually dormant due to several reasons adduced in the various chapters of their study are also critical in the governance of climate change policies.

Musah-Surugu et al. (2019) that local communities that receive the brunt of climate change require equal representation in climate decision was supported by the conceptual framework and other findings of this study. The central role of community-based groupings such as traditional leaders, religious groups, organized local groupings such as youth groupings, market associations and town-square leaders as well as cocoa farmers' cooperatives in managing a complex public crises is not far-fetched. This study strongly

argues for the integration of such community-based informal actors against the backdrop that these actors have prolonged access to local resources and environment, hence their contextual experience cannot be downplayed in governance. These lived experiences feature predominantly in the quest for sustainable local livelihood and preservation of local habitat for sustainability purposes.

Enhancing CSC is often fraught with some undertones of power imbalances and varied interests ranging from diverse levels and various sectors. Integration of stakeholder network shapes and motivates other already created ecosystems of multifarious actors to deliver efficient public policies and climate justice across sectors. Concern about whether such a process is holistic, real and comprehensive was cited by the study and the call for comprehensive stakeholder integration was apparent. Both empirical and conceptual chapters of this study have observed an integrated stakeholder governance framework between public bureaucracies, private sectors, third sector and community-based informal actors, which has extensive implications for the sustainability of CSC interventions. In some instances, stakeholder integration reduces power imbalances, the dominance of elite groupings and the inclusion of marginalised groups such as PWD in CSC initiatives.

Consequently, comprehensive stakeholder integration stands to produce an optimal net-benefit for Ghana's cocoa production and environmental sustainability. Thus, a clear understanding of congenial stakeholder integration across sectors and levels, reveals how multifarious actors interplay to ensure effective governance of climate change policies.

9.6 Contribution of this Study to Theory Building in the Field of Development Policy and Management

Changes in the climate have established ramifications on both international and local systems, hence, governance of it requires holistic scientific and policy considerations. In terms of theoretical lens, this study employs the Integrated Public Governance Theory in analysing the governance of climate change policies and the nuances inherent in stakeholder integration. Whereas the limited studies conducted in the field failed in employing the theory in the bid to understand the governance of climate change policies and the nuances inherent in stakeholder integration, this study extends empirical investigations into this arena and applies this theory as a novelty in the development policy and management field. This study further offers critical theoretical insights into climate change as a ‘wicked problem par excellence’ due to the interconnected nature of the climate issue and the impact it exudes on humanity and economies (Fröhlich & Knieling, 2013) and analyses its governance dynamics through Integrated Public Governance Theory.

The application of this theory expands the theoretical understanding of managing this complex, unstructured and highly complicated global crisis which demands requisite governance and policy capacity. Through the Integrated Public Governance Theory lens, this study has adequately indicated that there is a pressing need, currently more than ever, to break the ‘business-as-usual’ governance approach where few actors dominate the governance space and advocate for the adoption of a more sustainable and integrative approach. Moreover, this study enhances theoretical pontifications on the urgent need for comprehensive and strategic sectoral coordination and a complex inter-relation among critical stakeholders at all levels. This is against the background that, such systematic and

elaborate climate change governance process and stakeholder integration approach produces environmental soundness and sustainable development.

This also serve as a recipe for minimising the risk associated with climate change as well as maximising the net-benefit. Theoretically, this study builds on the significance and barriers inherent in the Integrated Governance approach by analysing the dynamics and practicalities of the stakeholder interrelations on the vertical and horizontal levels. The study expands on the empirical discussion on the dynamic interrelations at the vertical level to conclude domestic and foreign institutions, at subnational, national and international level. Horizontally, the study adds-on to the ongoing scholarly discussions on the inter-linkages between various MDAs, active participation of non-state actors and community-based groupings and how they interrelate to produce actionable development policies. Interest and intentions of the various sectoral and cross-level actors which are often missing in other theoretical frameworks in the field are well integrated and harmonised to enhance the sustainable implementation of policies (Satterthwaite, 2008; Al-Amin et al., 2013).

As espoused in the various sections of this study, strategic coordination across sectors and levels of climate change policy framework enhances policy prioritisation on environmental friendliness and climate change action rather than the overriding presumption in favour of economic development. (Adger, 2001; Pereira & Subramaniam, 2007). This study contributes to the theoretical landscape by highlighting that better institutional coordination among strategic actors from local, national and international remains critical to environmental friendliness and climate action. This study further extends theoretical discussions on how cross-sector stakeholder integrations enhance policy implementation through tailor-made policy processes through comprehensive stakeholder integration. This

study applies the Integrated Public Governance Theory in analysing the stakeholder approaches that enhances the capacity of developing economies to adapt adequately to the impacts of climate change.

This is in the context of the peculiar vulnerabilities in developing countries as a step towards identifying the institutional development approaches and stakeholder integration perspectives which could aid in adequately responding to those vulnerabilities associated with climate change adaptation.

9.10 Overall Contributions, Implications of this Study to Future Research

Climate change is probably going to continue to occupy the centre-stage of policy discourse in Ghana and elsewhere considering the increasing levels of devastation. This study argues that the implication of climate change in emerging economies would be exacerbated by excessive reliance on natural resources, poverty, weak technical and organisational capacity and potential socio-cultural resistance to scientific and technical adaptation mechanisms. Much of the remedial measures depend greatly on the governance architecture and the existence of a broader stakeholder involvement ecosystem. This calls for a broader stakeholder integration at all levels and sectors due to the complex nature of the climate crisis and its extensive impact on virtually all sectors of the world's economy.

Maximizing gains from the governance of climate change policies requires increased commitment among state and non-state actors to enhance sustainable development and climate justice. This climate justice praxis presents a decolonised approach towards increasing understanding and involvement of stakeholder networks from public bureaucracies and non-state actors who are business-inclined and public welfare-oriented.

An extensive body of research evidence has revealed that climate change has posed a tremendous impact on sustainable cocoa production (Suh & Molua, 2022), an indication of a growing enthusiasm for climate-smart interventions. In terms of cocoa production, Ghana and Cote d'Ivoire have earned an enviable place in global records as the two leading producers in the world with verifiable evidence of climate change impact (Kaba et al., 2022; Yamoah & Kaba, 2022).

Yet research evidence on climate change impact continues to showcase the experiences of developed countries where policies are broad in nature and integrative in terms of stakeholder representation. The considerable expansion in the climate change management approach in developing African countries shows a clear case of ratification of international climate change accords into country-specific climate-resilient initiatives. These policy governance approaches have enormous implications for achieving independent climate justice, CSC practices, environmental management systems and sustainable development approaches. This study observed the existence of a plethora of climate change policies earmarked for managing the complexities associated with the climate crisis in Ghana. However, weakness in strategically aligning these enormous climate-related policies persists not only in Ghana's cocoa subsector but the entire policy ecosystem as evident in the various sections of this study.

Similarly, the recent call for integrated public governance as postulated in post-NPM scholarly thinking (Pestoff et al., 2012; Denhardt & Denhardt, 2015; Fung, 2015) and firmly grounded in research evidence supporting the move from traditional PA purposely in managing complex societal crisis such as climate change was identified as significant governance issues that shape efficiency of climate change policies in cocoa. First and

foremost, climate change policy discourse in developing African countries recognises the essential role of strategic policy alignment across sectors and levels. Prudent policy alignment puts the entire policy space into a refined mode where sectoral policies become coherent with national-level policies and departmental policies.

Documentary evidence promotes the need for strategic policy alignment and professes key recommendations for MDAs as well as MMDAs to institute measures that favour policy alignment across sectors and levels. However, the findings of this study reveal a disjointed, stand-alone and unaligned policy ecosystem for climate change policies in Ghana as current evidence from this study suggests. In some cases, climate change policies and targets at the various MDAs and MMDAs have different timelines, approaches and plans. These policies' posturing frustrates the CSC strategies and causes major delays in the smooth implementation of climate change initiatives. The study supports the claims of the MESTI report and observes how the climate-resilient ecosystems may be hampered in a policy environment where such policies are not strategically aligned.

This study ultimately begs the fundamental question of whether cocoa sector climate change policies produce the requisite impact on the cocoa subsector. The experiences from key climate change policies such as the GCFRP and other CSC policy initiatives in Ghana suggest some level of progress but less so with sustaining CSC progress. Emerging perspectives from this study reveal that when climate change policies are well aligned with sectoral policies, institutional-level strategies, and a broader stakeholder integration regime, this can present a unique selling point for sustainable CSC in Ghana. The justification is that such strategic climate change policy alignment creates a mutually reinforcing policy environment for reducing deforestation in reserve areas for cocoa

production purposes, illegal mining in cocoa farms and forest reserves, pollution of water bodies at the cocoa farm-gate by ‘galamseyers’, and adoption of bad farming practices among others.

Moreover, some level of scholarly progress appears to have been made in areas of stakeholder integrations in the governance of climate change policies and CSC in Ghana and developing African countries (Ostrom, 1990; Elliott & Salamon, 2002; Agranoff & McGuire, 2003; Agrawal & Lemos, 2007; Boon & Ahenkan, 2012). However, concerns abound about the comprehensive nature of stakeholder integration, power imbalances, elite group capture and whether such an integration process is real or pseudo. In this regard, chapters six and eight have revealed the superficial and cosmetic nature of the stakeholder integration process in Ghana’s cocoa sector and the fact that most vulnerable stakeholders are still not well integrated. Without strategic integration of stakeholders from the public sector, private sector, third sector and community-based groups Ghana’s cocoa subsector would continue to experience the severe impact of climate change.

Perhaps, public bureaucracies together with other elite groups who tend to lead the charge as far as climate change is concerned may not fully be able to propel and sustain CSC, unless with active inclusion of all actors in the value chain. The pivotal stance of this study is that although the public bureaucratic architecture possesses the ‘birth right’ to manage all public problems, it may be factually inaccurate and overly ambitious to hold that the public sector alone can manage climate change issues. This study provides enormous contributions to the study of climate change governance and stakeholder involvement as a strategic pathway, to the extent that it proposes a conceptual framework that guides

stakeholder integration. This study systematically tested the Integrated Stakeholder Governance Framework in a case study in Ghana's cocoa sector.

This has generated enormous insights into Ghana's cocoa sector by providing answers to the unexplained features regarding stakeholder integration in cocoa and establishing the need for future research to explore a more integrative governance process. While the study highlights the need for stakeholder integration throughout the policy process, it has also demonstrated the obvious impediments that could emerge from applying the Integrated Stakeholder Governance Framework such as delays in consensus building and the influence of power stakeholders as compared to less powerful actors. This study expands the frontiers of research on nuances inherent in stakeholder integration and forces driving such integration of stakeholder networks. Whereas there are numerous positive driving forces, the existence of power imbalances, semblance of elite group capture and undercurrents of control by some powerful groups frustrates sustainable integration of all stakeholders.

This study contends that stakeholder integration in Ghana's cocoa sector tends to mimic a semblance of 'he who pays the piper calls the tune' which may be counterproductive for the sustainability of CSC if remained unchecked. This study demonstrates the enduring impact of holistic stakeholder integration on the CSC and the legacies of broad stakeholder integration in other segments of Ghana's development discourse. This study advances knowledge on the governance of climate change policies in cocoa considering the limited evidence of scholarly interest in stakeholder integration for building climate-resilient cocoa.

9.10.1 Areas for Future Research

Climate change in Ghana's cocoa sector is no more an abstract endeavour, but real and lived for most of the cocoa-growing communities. Therefore, the correct mix of different voices, actions, and ambitions from multi-stakeholders across levels and sectors is needed to remedy the already worsened climate situation. There has been an extensive proliferation of climate change reports, national environmental policy statements, and emerging climate change legislation at local, national and international levels, including scholarly literature, which demonstrate a widespread recognition of climate change as a complex crisis. This study has underscored the central argument that a complex global crisis requires a complex governance architecture that holistically embraces all policy dimensions and takes into cognisance of other related public problems that are likely to exacerbate the challenges caused.

Noteworthy, however, is the fact that the Integrated Stakeholder Governance Framework which serves as the underpinning conceptual framework has been tested only in this study with the limited case study. Therefore, applying this conceptual framework to a broader study scope and other sectors would serve as a necessary condition to check whether the key findings of the study still hold. Future studies could examine how the Integrated Stakeholder Governance Framework produces an optimal net-benefit for policy governance in other areas to underscore the validity of the framework. The finding of this study demonstrates that Ghana's national climate change policy formulation is extensively shaped by the international consensus given the global nature of climate change and the international prominence placed on it.

Consequently, the study cautions the need to guard against excessive external control as far as state-level and local climate change initiatives are concerned. Considering the potential of such interplay between international and domestic climate change policy ecosystems to lead into the ‘micro-managing’ of local climate change initiatives in sovereign nations. This complex interplay is critical, considering the uneven resource muscles between international and local actors, hence, the need for future research attention on such configurations in Ghana’s policy space. Adu-Boateng (2015) observes that the existence of a plethora of climate change policies alone does not produce an optimal net-benefit for attaining sustainable development. This study attempts to extend these discussions by contending that climate change policies perform better only when they are properly aligned with relevant climate change policies at the international level, national level, and local level.

The study posits that strategic alignment of climate change policies enhances the pathways towards the protection of forest reserves, the reduction of illegal mining in reserve forests, and promotes CSC. Similarly, Sarpong and Anyidoho (2012) demonstrated that cross-sectoral climate change policy alignment and multi-level climate change policy alignment enhance awareness and commitment toward climate change initiatives. In this regard, increasing research attention on the interplay between climate change policy alignment at the various sectors and levels is critical to achieving the full benefits of CSC interventions needed for effective adaptation and mitigation. The attempt for strong climate change policy alignment is quite novel within the cocoa subsector and further entrenches the discussions in the relevant research literature that previous studies have failed to show much interest in.

This study observes that climate change initiatives within the cocoa sector of Ghana remain a necessary condition considering the reduction in cocoa production by about 30% due to changes in climatic conditions. This study intimates that the main cocoa sector climate change initiatives used in governing climate change concerns are: The Ghana Cocoa Forest REDD+ Programme (GCFRP) with other initiatives such as Cocoa Rehabilitation and Intensification Programme, Cocoa and Forests Initiative Joint Framework for Action, Planting of shade-giving trees for shades for cocoa plants carefully aligned to the strategies of the GCFRP. While the governance of climate change policy involves a complex interplay of policy process with external influences, there is also the presence and centrality of stakeholder consultation and integration in the governance of climate change policies in Ghana.

There are however divergent views as to whether stakeholder integration is real or cosmetic in nature. Healthy stakeholder integration has an overt implication on the efficacy of CSC interventions compared to ‘pseudo’ and ‘selective’ stakeholder integrations which tend to be counterproductive in some instances for the attainment of sustainable cocoa production in Ghana. Hence, the unique avenue for research to explore the nature of stakeholder integration into broader climate change policy governance in Africa and specifically Ghana is timely. The underpinning conceptual framework also reveals the need to divorce community-based informal actors from the third sector regarding CSC deliberations. This is in respect of the nature of the interest of community-based actors compared to the third sector even though previous studies have fused them under the third sector.

Community-based actors in the governance of climate change policies are usually not formal and organised around cultural and community groupings to deliver climate justice

in Ghana's cocoa sector. These actors in the governance process help in advancing effectiveness, legitimacy, and social justice in the climate change policy governance processes. There is therefore an urgent need for research on the exclusive role of community-based informal actors in the governance of climate change policies since this stakeholder network appears to receive the brunt of climate change as a result of their increasing dependence on the local ecosystem for their livelihoods.

Finally, reflections from climate change policy governance shows that efficient CSC depends on using broad stakeholder integration network considering the diverse impact of climate crisis on all sectors of every economy. As such, cocoa producing countries in Sub-Saharan African (SSA) nations stand to benefit strongly from the adoption of comprehensive stakeholder integration. While studies are needed on reducing delays associated with stakeholder integration in policy governance, research efforts are needed to espouse the comparative advantage of stakeholder integration in cocoa-producing African economies. A comparative case study can equally be useful by comparing two or more cocoa-producing economies and the nature of stakeholder integration at play in these countries. For instance, Ghana and Cote d'Ivoire fit perfectly in such comparative studies because Cote d'Ivoire has taken over from Ghana as the world's leading producer of cocoa in terms of quantity whilst Ghana remains the global leader in terms of quality premium cocoa.

These historical antecedents and contemporary stances make it interesting and novel for studies to be conducted among these two neighbouring economies with similar production legacies. Also, the dynamics inherent in the production and smuggling of cocoa across these borders illegally are somehow underpinned by the vague stakeholder integration

outlooks, hence the need to further understand future research into such areas. Moreover, there is a lack of fitting integrative strategies for the various stakeholder networks as far as climate change governance in the cocoa sector is a concern. Hence, the question of how to mobilise and fairly integrate the various stakeholder groups identified by this study for climate-friendly cocoa production activities is left open with leeway for possible interpretations.

Also, most of the former research focuses on mainstreaming climate change policies into the development agenda of local assemblies and other parastatal institutions which neglected comprehensive stakeholder integration across sectors and levels. Studies into these areas stand to provide deeper insights into sustainable cocoa production, integrated governance and climate change, hence, the need for urgent scholarly attention in these critical areas.

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