Republic of Ghana

GHANA REDD+ STRATEGY

2016

Forestry Commission

GhREDD+

REDUCING EMISSIONS FROM DEFORESTATION AND FOREST DEGRADATION IN GHANA

FOREST CARBON PARTNERSHIP

Ghana REDD+ Strategy

2016 - 2035

Cover Photos:

(TL) Kakum National Park, Central Region of Ghana
(TR) A cross section of the shea landscape, Zebilla in the Upper East Region
(M) Mangrove establishment at Songhor Ramsar Site, Ada.
(BL) Consultation with traditional authorities on the REDD+ process in Ghana
(BR) Consultation with local community members at Damongo during the 2014 REDD+ Roadshow

ACKNOWLEDGEMENTS

The process adopted for the development of Ghana's REDD+ strategy benefited immensely from invaluable contributions, comments and feedback from several stakeholder groups and individuals. The National REDD+ Secretariat (NRS) of Ghana is grateful to all stakeholders for their strong collaboration and commitment exhibited towards completion of the document.

The NRS wishes to express its gratitude to the Forest Carbon Partnership Facility (FCPF) for their continued support of Ghana's REDD+ readiness process and particularly for the technical and financial support they offered towards completion of the document. The NRS is also grateful to the National REDD+ Working Group, the REDD+ technical sub-working groups as well as key government ministries and agencies including the Ministry of Lands and Natural Resources, the Ministry of Environment, Science, Technology and Innovation, the Environmental Protection Agency, The Forestry Commission and Ghana Cocoa board for their excellent insights that have greatly enriched the document.

The NRS also wishes to acknowledge the contributions of key subject matter specialists from Civil Society Organisations and Academia during the review and finalization of the document.

Finally, the NRS acknowledges the World-Wide Fund for Nature (WWF) whose publication titled: 'WWF Guide to Building REDD+ Strategies' was adapted for structuring the main sections of the document.

FOREWORD

This updated National REDD+ Strategy demonstrates the progress that Ghana has made in the preparatory process towards REDD+ implementation. It is therefore an honour for me to present this important national document to you on behalf of the Government of the Republic of Ghana.

Ghana's REDD+ Strategy was developed through the hard work and support from several stakeholders and national experts. These valuable contributions and commitment to the process provide ample evidence of Ghana's determination to embrace and recognize REDD+ as one of the pathways for sound management of our natural resources.

Through our partnership with the Forest Carbon Partnership Facility (FCPF), Ghana commenced REDD+ readiness activities in 2008 with the submission and acceptance of our REDD+ Readiness Plan Idea Note (R-PIN). During this period, REDD+ had only emerged as a concept in global climate change negotiations under the ambit of the United Nations Framework Convention on Climate Change (UNFCCC). Presently, Ghana has put in place a favourable enabling environment towards REDD+ implementation, making the country, one of the global forerunners in the REDD+ process.

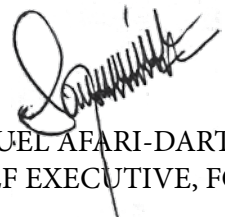
As Ghana makes positive strides in the REDD+ process, it has become increasingly evident that the mechanism will provide multiple benefits that will safeguard the country's forest and wildlife resources and ensure that there is optimal and sustainable flow of benefits to all segments of our society. The contemporary challenges which threaten Ghana's forestry sector include an upsurge in illegal mining and logging activities; wildfires; and unsustainable agricultural production. The national REDD+ strategy therefore outlines large-scale sub-national interventions that seek to address the key drivers of deforestation and forest degradation within the jurisdictional coverage of the selected programmes.

As part of ongoing collaboration with the FCPF, major advances have been made towards developing Ghana's first sub-national REDD+ programme. This Emissions Reduction Programme christened the GCFRP. The Ghana Cocoa-Forest REDD+ programme seeks to significantly improve cocoa yields through the adoption

of environmentally sound climate-smart practices with an objective of curbing deforestation and forest degradation in cocoa landscapes whilst addressing other drivers of deforestation and forest degradation in Ghana's High Forest Zone.

Ghana's REDD+ Strategy is also well-anchored within a very favourable policy environment. In our recent past, Ghana has adopted key policies including the National Climate Change Policy (2013) and the National Forest and Wildlife Policy (2012) which provides a sound basis for REDD+ implementation.

In conclusion, I wish to reiterate Ghana's commitment to translate the national REDD+ strategy into actionable interventions implementation of which will usher Ghana into a low-carbon development pathway and enhance the integrity of our environmental resources. The effective implementation of REDD+ will also enable us to contribute meaningfully to global efforts targeted at addressing climate change whilst providing significant opportunities to millions of Ghanaians whose livelihoods are dependent on well-functioning forest ecosystems.



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PREFACE

This maiden revision of Ghana's national REDD+ strategy was necessitated by major advances and experiences gained on REDD+ after the completion of the initial version in January, 2015.

This revised strategy document takes into cognizance the outcomes of the historic climate change agreement adopted at the 21st Conference of the Parties (COP 21) to the United Nations Framework Convention on Climate Change (UNFCCC) in Paris in December, 2015. The Paris Agreement signals a significant milestone in the recognition of the role of REDD+ in the fight against climate change. Article 5 of the Paris Agreement admonishes countries to implement and support REDD+ interventions whereas the Agreement also provides guidance on the approaches to be adopted by countries to fund REDD+ interventions (Decision 55/ CP. 21).

The revision of the document was also strongly influenced by the significant progress made in-country in the REDD+ process in the period following the completion of the initial strategy document. During this period, Ghana transitioned from REDD+ readiness to an intermediary stage where REDD+ demonstration activities (under the Forest Investment Programme) and development of Ghana's first sub-national REDD+ programme (i.e. the Ghana Cocoa Forest REDD+ programme) are being concurrently undertaken. These advances have contributed greatly to a clearer understanding of the form that REDD+ implementation will take in Ghana and have also shaped thinking on the key approaches to be adopted for addressing the drivers of deforestation and forest degradation in a manner consistent with national circumstances. Further inputs for the revision of the strategy document also emanated from the deliberations that took place during the formulation of a Ghana's Plantation Strategy implementation of which will form an integral component of Ghana's REDD+ process.

In revising the strategy document, a multi-stakeholder participatory approach was adopted to ensure that the revised document reflects current national thinking and aspirations on REDD+ whilst ensuring consistency with emerging international benchmarks and guidance on REDD+.

The National REDD+ Secretariat is keen to engage with the wide array of stakeholders that are committed to effective and efficient implementation of this strategy to reverse the spate of deforestation and forest degradation in Ghana and its dire consequences.

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ACR	American Carbon Registry
AD	Avoided Deforestation
ADD	Avoided Forest Degradation
ADR	Alternative Dispute Resolution
BC	Biodiversity Conservation
BUR	Biennial Update Report
CBOs	Community-Based Organizations
CBNRM	Community Based Natural Resources Management
CCB	Climate, Community and Biodiversity
CCSI-MDS Disclosure	Climate Change Support and Impact Monitoring System
CCBA	Climate, Community and Biodiversity Alliance
CCU	Climate Change Unit
CF	Carbon Fund
CIF	Climate Investment Fund
CoP	Conference of Parties
COCOBOD	Ghana Cocoa Board
CREMA	Community Resource Management Area
CRMCs	Community Resource Management Committees
CSE	Carbon Stock Enhancement
CSDS	Cocoa Sector Development Strategy
DRM	Dispute Resolution Mechanism
DF	Dedicated Forests
DFID	Department for International Development
EPA	Environmental Protection Agency
EU	European Union
ENRAC Council	Environmental and Natural Resources Advisory
ER-PIN	Emission Reductions Programme Idea Note
ERs	Emission Reductions
ER-PD	Emission Reductions Programme Document
ERPA	Emission Reductions Programme Agreement
FC	Forestry Commission
FCPF	Forest Carbon Partnership Facility
FGRM	Feedback and Grievance Redress Mechanism

FIP	Forest Investment Programme
FLEGT	Forest Law Enforcement, Governance and Trade
FPP	Forest Preservation Programme
FPIC	Free Prior Informed Consent
FRL	Forest Reference Level
FREL	Forest Reference Emission Level
FWP	Forest and Wildlife Policy
GDP	Gross Domestic Product
GHG	Greenhouse Gases
GoG	Government of Ghana
GPG	Good Practice Guidelines
GSGDA	Ghana Shared Growth Development Agenda
GSIF	Ghana Strategic Investment Framework
HFZ	High Forest Zone
IPCC	Intergovernmental Panel on Climate Change
IMAG	Independent Monitoring and Audit Group
INDC	Intended Nationally Determined Contributions
JCC	Joint Coordination Committee
LAP	Land Administration Project
LBCs	Licensed Buying Companies
LCDS	Low Carbon Development Strategy
LULUCF	Land Use, Land Use Change and Forestry
MESTI	Ministry of Environment, Science, Technology and Innovation
MDAs	Ministries Departments and Agencies
MDGs	Millennium Development Goals
MGB	Multi-stakeholder Governance Bodies
MLNR	Ministry of Lands and Natural Resources
MMRV	Monitoring, Measurement, Reporting and Verification (of emission reduction)
MoF	Ministry of Finance
MRI	Multi-Resource Inventory
MRV	Measurement, Reporting and Verification
MTS	Modified Taungya System
NASA	National Aeronautics and Space Administration
NCCP	National Climate Change Policy
NCRC	Nature Conservation Research Center
NFMS	National Forest Monitoring Systems

NFPDS	National Forest Plantation Development Strategy
NGOs	Non-Governmental Organizations
NRS	National REDD+ Secretariat
NREG	Natural Resources and Environmental Governance Programme
NRWG	National REDD+ Working Group
NREG-TA	Natural Resources and Environmental Governance Technical Assistance
NTFPs	Non-Timber Forest Products
OASL	Office of the Administrator of Stool Lands
PES	Payment for Ecosystem Services
PFM	Participatory Forest Management
QA	Quality Assurance
QC	Quality Control
REDD+	Reducing Emissions from Deforestation and forest Degradation (conservation, sustainable management of forests and enhancement of forest carbon stock)
REDDX	REDD+ finance tracking initiative
REL	Reference Emissions Level
R&D	Research and Development
RL	Reference Level
RMSC	Resource Management Support Centre
R-PP	Readiness Preparation Proposal
R-PIN	Readiness Project Idea Note
R-Package	Readiness-Package
SBSTA	Subsidiary Body for Scientific and Technological Advice
SESA	Strategic Environmental and Social Assessment
SFM	Sustainable Forest Management
SLM	Sustainable Land Management
SIS	Safeguard Information System
SOPs	Standard Operating Procedures
SZ	Savannah Zone
TCC+	Technical Coordinating Committee
tC/ha	Tonne of carbon per hectare
tCO2	Tonne of carbon dioxide equivalents

TZ	Transitional Zone
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
USFS	United States Forest Service
VCS	Verified Carbon Standard
VPA	Voluntary Partnership Agreement
WB	World Bank
WFR	Warsaw Framework for REDD+
WWF	World Wide Fund

EXECUTIVE SUMMARY

BACKGROUND

REDD+ denotes the suite of interventions that seek to reduce emissions from deforestation and forest degradation whilst incorporating the role of conservation, sustainable forest management and enhancement of forest carbon stocks in developing countries. Countries that intend to undertake REDD+ activities are required to develop a national strategy that clearly articulates measures aimed at addressing the drivers of deforestation and forest degradation and other associated issues including land and tree tenure, forest governance, gender and safeguards.

Work towards development of a national REDD+ strategy for Ghana effectively commenced in 2008 when Ghana enlisted on the World Bank's Forest Carbon Partnership Facility (FCPF) REDD+ Readiness Programme. The submission of A Readiness Plan Idea Note (R-PIN) and subsequent approval of Ghana's REDD+ Readiness Preparation Proposal (R-PP) in 2010 enabled Ghana to secure funding from the FCPF to support implementation of readiness activities commencing from 2012.

The R-PP serves as a blueprint for REDD+ readiness implementation and outlines the key processes, systems and frameworks which Ghana needs to complete in order to enable the country effectively implement the REDD+ mechanism. In preparation of Ghana's R-PP, a thorough assessment of the drivers of deforestation and forest degradation was undertaken to guide the selection of 13 strategic options which were deemed suitable for addressing the identified drivers. These strategic options were further analyzed during the strategy development process and resulted in the selection of the priority national and sub-national REDD+ programmes.

Ghana's REDD+ Strategy has been designed to meet the requirements of the Warsaw Framework on REDD+ and other decisions of the Conference of the Parties of the United Nations Framework Convention on Climate Change (UNFCCC). In developing the national REDD+ strategy, significant attention has been paid to national circumstances and developmental aspirations and the process also took due cognizance of major national policies including the national climate change policy (2013) and the revised forest and wildlife policy of Ghana (2012).

Deforestation and forest degradation in Ghana

Ghana's net annual loss of forest cover is estimated at 2% with forest degradation generally acknowledged as more prevalent as compared to deforestation. This trend of forest loss poses a significant threat to the livelihoods of forest fringe communities as well as ecosystem services and functionality that support Ghana's predominantly agrarian economy. Ghana's R-PP identifies the principal drivers of deforestation and forest degradation as agricultural expansion 50%), wood harvesting (35%), population and development pressures (10%), mining and mineral exploitation (5%).

Ghana's approach for REDD+ implementation

Ghana has adopted a nested approach for implementation of REDD+ in a phased programmatic approach with initial focus on the High Forest Zone and scaling up to cover the other distinct major ecological zones of the country such as the Savanna Zone. The proposed measures and interventions targeted at addressing the drivers of deforestation and forest degradation are linked with the production and supply chains of major commodities and defined by clear ecological boundaries. Ghana acknowledges that the actions required to achieve REDD+ are complicated and multi-dimensional. The National REDD+ Strategy is therefore meant to serve as a guide and framework for achieving REDD+ in a well-coordinated manner by pursuing a broad set of actions to tackle deforestation and forest degradation at the landscape level.

This strategy is envisaged to be a twenty-year working document but is subject to periodic review as new ideas and enhanced understanding of REDD+ emerge from research and on-the-ground implementation of REDD+ activities in Ghana.

Sections of the strategy document

The strategy document is structured along four sections:

Section 1: Introduction and Background

The first section presents the global and Ghanaian context of REDD+ and introduces the vision, goals, criteria and principles of Ghana's REDD+ process.
Ghana's Vision for REDD+ is to significantly reduce emissions from deforestation and forest degradation over the next twenty years, whilst at the same time addressing threats that undermine ecosystem services and environmental integrity in order to maximize co-benefits from forests.

The goals set by Ghana for REDD+ implementation are to:

1. Significantly reduce emissions from deforestation and forest degradation over the next twenty years, while enabling carbon stock enhancement through sustainable forest management and forest restoration strategies such as forest plantation establishment.
2. Preserve Ghana's forests in order to sustain their ecosystem services, conserve biological diversity, and maintain a cultural heritage for generations to come;
3. Transform Ghana's major agricultural commodities and Non Timber Forest Products (NTFPs) into climate-smart production systems and landscapes;
4. Expand platforms for cross-sector and public-private collaboration and sustainable economic development;
5. Generate innovative, substantial and sustainable economic and non-economic incentives and benefits to improve livelihoods across all regions of Ghana.

In order to fully realize the vision and goals of REDD+, Ghana has set five key criteria to guide the implementation of REDD+ activities:

- Economic development —how does the activity contribute to the nation's development?
- Environmental sustainability—how does the activity contribute to the sustainable use of Ghana's forest resources?
- Measurable—how will the activity be monitored, evaluated and measured?
- Inclusive—has the activity considered all possible stakeholders and engaged them in the process, with consideration of their rights and potential impacts?
- Marketable—how will the activity generate revenue and benefits, either through markets, funds, or alternative mechanisms?

In pursuing REDD+ in Ghana, the following principles will guide all aspects of planning and implementation:

- Recognition of the rights of all stakeholders, including land owners, land users, marginalized groups, women and children.
- REDD+ should maintain and enhance the integrity of Ghana's forests and its environment in order to safeguard ecosystem services.

- REDD+ should be implemented through an open, inclusive, equitable, and transparent process at all levels and at all times.
- REDD+ should not be used to promote external interests or 'elite capture' at the expense of peoples', communities' or the Nation's interests.
- REDD+ should align with national development goals and aspirations.

Section 2: Achieving REDD+

This Section provides an overview of the drivers of deforestation and degradation and an assessment of activities to reduce emissions from forest loss. The section also describes the implementation approach for REDD+ in Ghana and outline the key elements that will define the implementation modalities of REDD+ in Ghana.
Forest degradation and deforestation in Ghana are primarily driven by:

- Agriculture expansion
- Logging
- Fuel-wood harvesting/charcoal production
- Wildfires
- Infrastructure development
- Mining/sand winning

Through an extensive consultative process and focus group discussions, a national and two sub-national programmes have emerged as the priority REDD+ programmes for Ghana:

- The Emission Reductions Programme for the Cocoa Forest Mosaic Landscape (The Cocoa-Forest REDD+ Programme).
- The Emission Reductions Programme for the Shea Landscape of the Northern Savanna Woodland (The Shea Savanna Woodland Programme)
- Ghana's Programme for Policy and Legislative Reforms on Tree Tenure and Carbon Rights (Policy and Legislative Reform Programme).

The strategy also identifies three other programmes that require further analysis and consideration for REDD+ implementation in Ghana:

- Emission Reductions Programme for the Transitional Forest Landscape;
- Emission Reductions Programme for the Coastal Mangroves;

- Emission Reductions for the Togo Plateau

Section 3: Governance of REDD+ in Ghana

Section 3 outlines the enabling environment and governance arrangement which will support the implementation of REDD+ activities in Ghana.

Ghana has invested substantial efforts towards the development of a coherent and contextually appropriate governance structure which favours REDD+ implementation. At the national level, key bodies have been set up to provide oversight and guidance on the implementation of REDD+ activities. These bodies include the Environmental and Natural Resources Advisory Council (ENRAC) hosted at the cabinet level and which represent a high-level decision-making body on environmental issues in Ghana. The Ministry of Environment, Science, Technology and Innovation (MESTI) also hosts the inter-sectoral Technical Coordinating Committee-Plus (TCC+) which has been established to oversee and guide the policy and institutional coordination of environmental and natural resource governance across the various government institutions.

The National REDD+ Working Group (NRWG) is a multi-stakeholder platform hosted by the Ministry of Lands and Natural Resources (MLNR) and has responsibility for providing advice and guidance on all aspects of REDD+. The NRWG is supported in their activities by seven (7) sub-working groups who provide technical backstopping to the NRWG on key specialized areas of Ghana's REDD+ process. Ghana's National REDD+ Secretariat (NRS) is hosted by the Forestry Commission of Ghana and is responsible for the day to day coordination and management of Ghana's REDD+ programme. The NRS is mandated to ensure that the country is ready to implement REDD+ and will be responsible for the progressive upscaling of REDD+ activities nationwide.

Section 4: Tracking REDD+

This section describes Ghana's approach for a full tracking system for monitoring, measuring, reporting and verifying emissions fluxes associated with REDD+ implementation. It also outlines the plan for housing relevant data associated with these activities in an information database.

Monitoring forests for REDD+ necessitates a clear forest definition. Ghana has consequently defined its forest as any piece of land with a minimum area of 1 hectare, with a minimum canopy cover of 15% and with trees that have the potential

to reach or have reached a minimum height of 5 metres at maturity in situ. In terms of implementation of forest monitoring, Ghana intends to use an approach that combines remote sensing technology with ground-based sampling on appropriate stratification and sampling methodologies

1. INTRODUCTION

Reducing emissions from deforestation and forest degradation (REDD+) emerged in global climate change negotiations under the United Nations Framework Convention on Climate Change (UNFCCC) in 2005 as a mechanism aimed at incentivizing tropical forest countries to reduce their emissions from deforestation and forest degradation. In 2013, the Warsaw Framework for a REDD+ mechanism (WFR) was formulated to provide an overarching guidance for REDD+ implementation. The WFR requires that countries which intend to implement REDD+ should identify drivers of deforestation and forest degradation, adopt policies and measures, and develop strategies for addressing the drivers of deforestation and forest degradation.

Ghana's REDD+ Strategy, together with the interventions, measures, systems, policies, and future work that it outlines has been developed to guide and support the implementation of the national REDD+ programme, taking into account all the methodological elements captured in the WFR under the UNFCCC. The formulation of Ghana's REDD+ Strategy was initiated with the support of the Forest Carbon Partnership Facility (FCPF) of the World Bank, which is supporting Ghana in its REDD+ Readiness phase to set the stage for the full implementation of REDD+ in the context of national needs, priorities and circumstances.

The progress made to date in the development of Ghana's REDD+ architecture and systems, including the REDD+ Strategy, ensures that the country has the relevant strategic guidance for addressing the methodological elements enshrined in the WFR. This REDD+ Strategy document is meant to serve as the blueprint for REDD+ in Ghana; providing a guidance and framework for REDD+ implementation, including clarity on work that is still underway or required. As with Ghana's Readiness Preparation Proposal (R-PP), it is a living document and retains sufficient flexibility and openness such that it can be reviewed, modified, adapted and even re-written over time as conditions, experiences and circumstances change and new opportunities emerge.

The Strategy document is structured along three main themes: Achieving REDD+, REDD+ Governance and Tracking REDD+. In each section, the overarching strategic vision is highlighted in bold. In some sections the Strategy is clear, but with other sections the strategy only goes so far as to explain work that still needs to be done and/or decisions to be taken in light of a series of choices.

Section 1 of the Strategy— Introduction and Background--lays out the global and Ghanaian context of REDD+ and introduces the vision, goals, criteria and principles of the NRS.

Section 2 of the Strategy— Achieving REDD+--provides an overview of the drivers of deforestation and degradation and an assessment of activities to reduce emissions from forest loss. It then describes the implementation approach for REDD+ in Ghana and other key elements that define how REDD+ will work.

Section 3 of the Strategy— Governance-outlines the enabling environment and how it will support the implementation of REDD+ with respect to overall governance aspects of REDD+.

Section 4 of the Strategy—Tracking REDD+--outlines how REDD+ will be monitored and tracked for performance in Ghana.

1.1 The Global Context

Climate Change presents a significant threat to the wellbeing of mankind, and it is driven by the ever increasing quantity of greenhouse gases (GHG) being emitted into the atmosphere from anthropogenic sources. The Intergovernmental Panel on Climate Change (IPCC) has called for concerted action by all nations to limit their GHG emission. Globally, consensus has grown that it will be practically impossible to limit the impacts of climate change without reducing emissions from the forestry and agricultural sectors; yet worldwide, forests continue to be lost at an alarming rate. Between 2000 and 2010 there was a global net loss of 6.2 million hectares of forests .

Forests serve as carbon sinks such that when destroyed, either by burning or through the degradation of organic matter emits carbon dioxide (CO2) into the atmosphere. CO2 is one of the most potent greenhouse gases and the primary component of anthropogenic emissions. The conversion of forests to other land uses is responsible for around 10% of net global carbon emissions . Therefore, solving the problem of deforestation is a prerequisite for any effective response to climate change.

To successfully implement REDD+, participating countries are required to embark on a readiness process that outlines a set of strategic activities that will be used to address the main drivers of deforestation and forest degradation.

Ghana joined the international REDD+ Readiness Programme through the FCPF in 2008, and its Readiness Preparation Proposal (R-PP) was approved in 2010.

The R-PP outlined the process by which the Government of Ghana was to develop its national strategy and the supporting mechanisms and processes for participating in and implementing REDD+. During this period, Ghana also became a recipient of the Forest Investment Programme (FIP) of the Climate Investment Fund (CIF) of the World Bank, which is currently supporting the government to pilot projects that are synchronized with Ghana's REDD+ programme. Ghana is now preparing its Readiness Package, which outlines the completion of the preparation phase and indicates a move to full implementation.

1.2 The Ghanaian Context

Ghana's forest lands are endowed with rich natural resources—gold, timber, non-timber forest products (NTFPs) etc. The country has a strong commitment to democratic governance, civic and traditional leadership.

The country is divided into three main ecological zones; the High Forest zone (HFZ), Transitional Zone (TZ) and the Savannah Zone (SZ). These zones have been delineated on the basis of climatic factors, notably rainfall and temperature.

The High Forest zone is found in the southern part of Ghana. It is the region with the highest precipitation in the country, where rainfall may exceed 2000 mm in the wettest parts (wet evergreen zone). The HFZ falls within the biodiversity hotspot of the Guinean forests of West Africa, one of the 36 most important biodiversity areas in the world.

The Transitional Zone exists in the mid-part of the country. It portrays characteristics of both the High Forest and Savannah Zones.

The Savannah Zone mainly exists in the northern part of the country, but stretches further south into the east coast and exists in three distinct forms; Coastal savannah, Guinea savannah and the Sudan savannah.

With a current rate of deforestation and forest degradation (2% annual loss of forest cover in Ghana), Ghana's forest resources face pressures from mining, agricultural encroachment, wildfires and poaching. Ghana's economic growth and achievements

FAO. 2010. Global Forest Resources Assessment. Main report.http://www.fao.org/docrep/013/i1757e/i1757e.pdf
IPCC (2013) Intergovernmental Panel on Climate Change. The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change

have come at a significant cost to its forests. Having lost over 60% of its forest cover from 1950 to the turn of the last century (2.7 million hectares) , and considering the current deforestation rate of approximately 2% per year (135,000 ha/year), the future of Ghana's forests is an issue of major concern.

Forest degradation and deforestation pose a significant threat to Ghana for two main reasons. Forests provide many ecosystem services and functions that support the country's predominantly agrarian economy. Therefore as Ghana loses its forest ecosystem, the sustainable supply of goods and services is hampered. In addition, deforestation is a major global contributor to climate change through CO2 emissions. Ghana therefore runs the risk of remaining in its present status of a net emitter of CO2 if it is unable to halt deforestation and forest degradation. Given that climate change poses myriad threats to Ghana as a result of projected increases in temperature and changes in rainfall patterns, the effort to mitigate and adapt to climate change is of paramount importance to all Ghanaians.

Ghana began its engagement in REDD+ in 2008 with the development of its Readiness Project Idea Note (R-PIN), and in 2010 received approval of its R-PP. Since 2010, Ghana has been focusing on REDD+ Readiness, building the needed capacity, understanding, architecture and systems to support the implementation and monitoring of REDD+ projects and programmes. It is expected that by the end of 2016, Ghana will be ready to implement a suite of activities and programmes to reduce deforestation, and that in the ensuing five to ten years, it will broadly scale up and expand these interventions.

Since 2008, significant learning, debate, and actions towards REDD+ have happened in Ghana and numerous partners from civil society, private sector, government, communities and traditional leaders have contributed to its evolution and efforts towards realization of its goals.

Recognizing the national and global importance of this initiative, Ghana acknowledges that while the concept of REDD+ is relatively straightforward, the actions required to achieve REDD+ are complicated and multi-dimensional. Land and tree tenure issues, especially in off-reserve areas and challenges associated with the development and implementation of an equitable benefit sharing scheme pose major challenges to Ghana's REDD+ process. Other constraints include: codification of carbon property rights; effective coordination among REDD+ related initiatives to ensure synergy and cost-efficiency and low level of awareness and capacity in

Owusu, J.G.K, Abeney, E.A, Frimpong, E.A (1999). Workshop for media personnel on forestry and wildlife reporting

REDD+ matters among key stakeholders particularly at the grassroots' level.

1.3 Ghana's REDD+ Vision, Goals, Criteria and Principles

Ghana's REDD+ Strategy is evidence that Ghana is committed to achieving REDD+ and changing the way that the country and its people have historically thought about, used, and benefited (or not) from its forest resources. Ghana's REDD+ Strategy document is a twenty year living document which will be revised from time to time, most probably at five-year intervals.

Vision

Ghana's Vision for REDD+ is to significantly reduce emissions from deforestation and forest degradation over the next twenty years, whilst at the same time addressing threats that undermine ecosystem services and environmental integrity so as to maximize the co-benefits of the forests. By so doing, REDD+ will become a pillar of action for the national climate change agenda and a leading pathway towards sustainable, low emissions development.

GOALS

The goals of REDD+ are to:

1. Significantly reduce emissions from deforestation and forest degradation over the next twenty years, while enabling carbon stock enhancement through sustainable forest management and forest restoration strategies such as forest plantation establishment. Ghana has not stated a quantitative emissions reduction target for REDD+ at this stage because baseline conditions /data for REDD+, Reference level, Monitoring Reporting and Verification etc. are yet to be fully established. Ghana intends to utilize a bottom-up approach to set a quantitative national target for REDD+ starting from the Emission Reduction Programme (High Forest Zone) and work in is direction is progressing well. Going forward, as Ghana gets a very comprehensive baseline data, very specific targets for REDD+ will be set and incorporated in any future revision of the National REDD+ Strategy;
2. Preserve Ghana's forests in order to sustain their ecosystem services, conserve biological diversity, and maintain a cultural heritage for generations to come;
3. Transform Ghana's major agricultural commodities and NTFPs into climate-smart production systems and landscapes;
4. Expand platforms for cross-sector and public-private collaboration and sustainable economic development;

5. Generate innovative, substantial and sustainable economic and non-economic incentives and benefits to improve livelihoods across all regions of Ghana.

Criteria

To realize this vision and goals, actions in line with Ghana's Strategy should maintain a focus on five key criteria for REDD+:

- Economic development—how does the activity contribute to the nation's development?
- Environmental sustainability—how does the activity ensure and contribute to the sustainable use of Ghana's forest resources?
- Measurable—how will the activity be monitored and can it produce measurable results?
- Inclusive—has the activity considered all possible stakeholders and engaged them in the process, with consideration to their rights and the potential impacts?
- Marketable—how will the activity generate revenue and benefits, either through markets, funds, or alternative mechanisms?

In fulfilling the demands of REDD+, with an understanding that REDD+ is underlain by a core idea of performance-based payments, Ghana recognizes and is keen to address the key features of REDD+ including:

Additionality: Demonstration that the emission reductions and other benefits would not have been realized without the REDD+ programme.

Leakage: REDD+ programmes are to demonstrate clearly that a reduction in emissions in a programme area is not shifted to or leads to emissions outside the programme area.

Permanence and risk assessment: A REDD+ programme must be designed to ensure that emission reductions will persist over the life of the programme and that the associated carbon assets are permanent. Programmes are required to conduct a risk assessment that describes the various risks and specify plans to mitigate those risks.

Co-benefits: The programme should provide other benefits such as livelihood enhancement, poverty alleviation, biodiversity conservation etc. in addition to the carbon benefit.

Ghana recognizes that the REDD+ process will need to catalyze a major change in the way that Ghanaians think about the value of forests and the benefits and services that forest provide, and that it will have to drive a change in actions with respect to how forests are used. REDD+ will also need to usher in a new era of performance-based management so that Ghana's forests, agroforestry systems, and plantations can be better protected and more sustainably managed for generations to come. Ghana aspires to become a continental leader in the development of programmes and models o climate-smart agriculture and sustainable integrated landscapes.

Though discourse on REDD+ largely began within the domain of government and non-governmental organizations (NGOs), the private sector is increasingly being recognized as an important partner and investor, with traditional leaders and community members as the main actors of REDD+. REDD+ will also have to drive major changes in tenure and rights regimes, push forward the decentralization of landscape level land-use planning, revitalize the enforcement of forest laws, and introduce a new system for monitoring forests and impacts. Finally, REDD+ will need to foster new types of economic opportunities and incentives that strengthen natural resource governance and enable stakeholders and land users to prosper as Ghana conserves and grows forests.

Principles

In pursuing REDD+ the following principles will guide all aspects of planning and implementation:

- REDD+ should recognize and respect the rights of all people and segments of society, including land owners, land users, marginalized groups, women and children.
- REDD+ should maintain and enhance the integrity of Ghana's forests and its environment in order to safeguard ecosystem services.
- REDD+ should be implemented through an open, inclusive, equitable, and transparent process at all levels and at all times.
- REDD+ should not be used to promote external interests or 'elite capture' at the expense of peoples', communities' or the Nation's interests.
- REDD+ should align with national development goals and aspira tions.

1.4 The Strategy Development Process

1.4.1 Consultations in the Strategy Development Process

The strategy was prepared over a two-year period, in consultation with a wide range of stakeholders across the country. These included technical experts, government officials from institutions whose activities are REDD+ related, civil society organizations, traditional leaders and landowners, community and farmer representatives, academia, private sector companies and international organizations. In the process, emphasis was placed on creating a gender sensitive, participatory, and inclusive process.

An initial draft of strategy options was generated, followed by an early draft of the strategy that was subjected to two consultations hosted by the Forestry Commission (FC), with a wide range of stakeholders. A third consultation took place with a focus group of REDD+ experts, resulting in a more complete draft, but many gaps still remained. A small team of national REDD+ experts were then brought together to critical input to strengthen the content and scope of the strategy. In producing this draft of the strategy, the team was guided by the World Wide Fund (WWF) Guide for Building REDD+ Strategies (2013).

The resulting draft was then presented to a high-level working group for further evaluation, input and revision. The output of the working group was then presented in two consultation meetings, one held in Sunyani and the other in Accra, involving representatives of all the main REDD+ stakeholders, including district forest forums and community members. The "final" draft of the strategy was completed by the National REDD+ Secretariat (NRS) and consultants to the World Bank (WB) and Forest Carbon Partnership Facility (FCPF).

The aim of the consultations and participatory sessions was to share ideas and experiences, and to receive critical feedback on the strategy as it evolved over time, so as to establish a plan that can truly address the main drivers of deforestation and forest degradation across Ghana, reduce carbon emissions, and enhance important co-benefits for human wellbeing and the maintenance of ecosystem services.

Ghana's National REDD+ Strategy also benefitted from and was built off the myriad consultations and stakeholder engagements that occurred during the development of Ghana's R-PP, FIP and the drafting of the Emission Reductions Programme Idea Note (ER-PIN).

2. ACHIEVING REDD+

Ghana's ability to successfully address the drivers of deforestation and forest degradation in the short, medium and long term will ultimately determine the success of REDD+ in Ghana, regardless of whether the other building blocks are in place. The plan for how to achieve REDD+ is therefore of paramount importance.

Establishing an inclusive and comprehensive national process is also crucial to the success of REDD+ in Ghana. No institution, organization or individual can single-handedly address the key drivers of deforestation and forest degradation, and due consideration must be given to the legal, institutional, cultural and economic imperatives for achieving REDD+. Therefore, this section of the document describes a broad plan for achieving REDD+, that when implemented should facilitate a positive and collaborative process that invites widespread participation, information sharing, dialogue and action.

2.1 Drivers of Deforestation & Forest Degradation

Deforestation in Ghana is considered to be one of the highest in the World. At an estimated annual rate of 2%, equivalent to 135,000 hectares per annum, remnant forests outside of the gazetted forest reserves are likely to be completely liquidated in the next 10 years, and the forest reserves will come under more acute pressure from encroachment and other illegal activities if very serious and concerted action to eliminate the threats is not taken.

In Ghana the principal drivers of deforestation and degradation are:

- Agriculture expansion
- Logging
- Fuel-wood harvesting/charcoal production
- Wildfires
- Infrastructure development
- Mining/sand winning

Unlike other REDD+ countries facing frontier deforestation, Ghana's deforestation pathway is one of incremental degradation leading to deforestation.

Table 1 provides a detailed description of these direct drivers of deforestation and degradation in Ghana, and the associated indirect drivers. Direct drivers are activities or actions at the forest frontier that explicitly impact forest cover, whereas indirect drivers are the socioeconomic processes that shift the way that people behave at a macro level and would affect the direct driver.

Identifying and understanding the key drivers of deforestation and forest degradation is not a one-off activity given that the conditions that influence peoples' decision making can change with time. Therefore, the strategy recommends frequent review and ground-truthing of drivers in the hotspots of deforestation and degradation across the entire country. Only by continuing to evaluate the main drivers can the needed actions for achieving REDD+ remain relevant.

The problem of illegal small-scale mining (galamsey) is one example of how the influence and impact of drivers can change. Though illegal mining has always been a problem, its impact on the landscape shot up in 2013 due to spikes in the global price of gold and the increasing availability of machines and expertise.

Many of the drivers of deforestation and degradation in Ghana are often exacerbated or reinforced by challenges associated with land ownership, management and use. For example, the lack of a holistic and effectual land use plan for Ghana poses a significant challenge to the successful implementation of interventions that seek to limit unsustainable environmental practices such as unregulated/ unsustainable agriculture expansion, illegal mining activities and infrastructure development which drive the loss of forest cover in the country.

Ghana's Land Administration Project (LAP) commenced in 2003 and seeks to implement the policy actions recommended in the National Land Policy of 1999 over a 15-25 year period with the aim of addressing the challenges associated with the land sector in Ghana. Land use planning features strongly in Ghana's LAP and is being spearheaded by the Town and Country Planning Department. However, work on land use planning has so far focused on spatial planning for human settlements and urban development with very little attention paid to the other land uses – agriculture, forestry, mining etc. The REDD+ process in Ghana would therefore catalyze the necessary discussions and foster institutional coordination that will lead to the development of a more holistic land use plan for Ghana which integrates the various land uses at the landscape level.

Table 1: Direct and Indirect Drivers of Deforestation and Degradation

Direct Drivers
Agricultural Expansion • **Cocoa** • **Other tree crop systems: rubber, citrus, oil palm, coffee, cashew, mango** • **Food crop farming under shifting cultivation using slash-and-burn.**
Logging • **Illegal logging: timber companies and chainsaw operators**
Fuelwood Harvesting • **Wood harvesting for charcoal production** • **Wood harvesting for firewood**
Wildfire • **Slash & burn agriculture** • **Cattle ranching,** • **Hunting**
Mining • **Mining inside forest reserves** • **Illegal small-scale mining—commonly known as *galamsey***
Infrastructure Development • **Urban and rural settlement expansion** • **Expansion of roads and other infrastructure**
Indirect Drivers
Population Growth & Development • **High population growth rate** • **Increasing demand for food crops, fuelwood, charcoal, and construction materials**
Global Markets • **Increasing demand for high value timber species.** • **Growing global demand for chocolate and cocoa products.** • **Increasing global and regional demand for palm oil.** • **International market prices for timber and agricultural products.**
Weak law enforcement • **Weak institutional capacity** • **Corruption**
Tree Tenure • **Tree tenure policies that create perverse incentives to remove on-farm trees**
Low Stumpage Prices & Overcapacity • **Low stumpage prices in domestic market** • **Proliferation of chainsaws and small-scale mills**

2.2 Key interventions to reduce deforestation & degradation

A set of strategic options for addressing the direct and indirect drivers of deforestation and forest degradation was compiled (Figure 1). Each option was assessed based on ten criteria that were grouped according to importance—primary, secondary, tertiary (Figure 2).

Figure 1: Ghana's strategic options for addressing drivers of deforestation and degradation

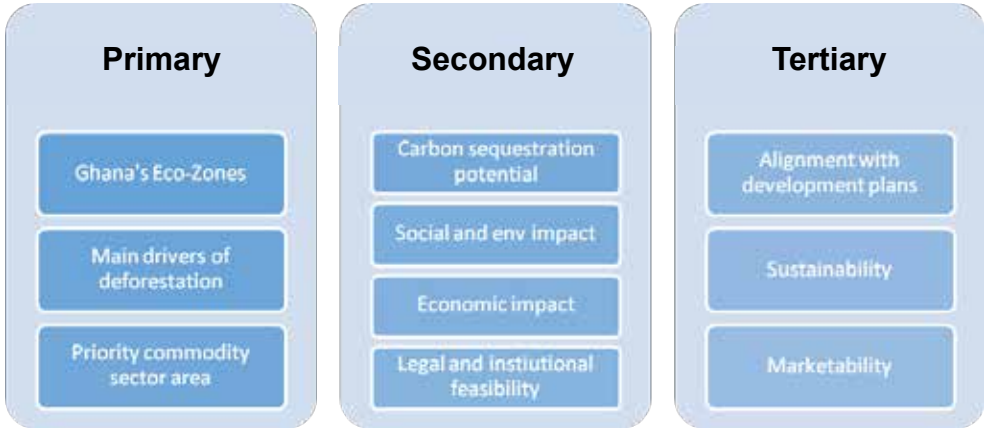


Figure 2: Criteria for assessing strategy options

This analysis resulted in the identification of three (3) broad interventions representing a strategic grouping of the various strategy options; the idea being that by implementing the strategy options in concert and in accordance with the relevant eco-zones or national context, they will have the highest potential to significantly impact the direct and indirect drivers. The three recommended interventions and the associated strategy options to reduce deforestation and forest degradation are laid out in Table 2. Work was then conducted to identify practical interventions and activities to realize REDD+ impacts (Figure 3).

1. Improving land-use and socio-economic development in the HFZ and cocoa growing areas	2. Addressing wood harvesting and agricultural practices in the savannah woodland zones	3. Policy and legislative reforms
•Address unsustainable timber harvesting. •Mitigate effects of agriculture & cocoa expansion •Reduce expansion of other tree crops and agric systems by promoting climate smart agriculture. •Improve regulation of mining activities. •Wildfire management •Encourage the adoption of enrichment planting and use of indigenous species in forest plantation development in degraded forest lands •Watershed protection	•Address unsustainable timber harvesting. •Improve sustainability of fuelwood harvest & use. •Reduce expansion of other tree crops and agric systems •Improve regulation of mining activities. •Wildfire management •Pastoral Control and Management •Watershed protection	•Improve quality of multi-stakeholder dialogue and decision making. •Clarify rights and tenure regimes. •Enforce timber compliance. •Address local market supply and demand. •Strengthen local decentralized management of natural resources. •Improve regulation of mining activities. •Prepare for natural risks.

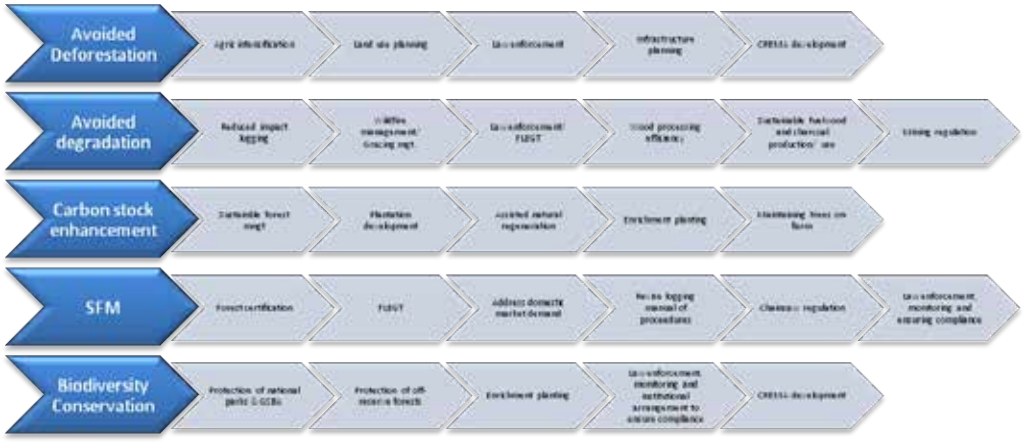


Figure 3: Interventions and activities to promote REDD+ impacts

2.3 Scope of REDD+

REDD+ contains 5 main elements, as depicted in Figure 4. The concept was introduced for the first time in 2005 at the CoP 11 in Montreal, Canada and focused only on RED—reducing emissions from deforestation. However, over the last decade, it has evolved and expanded in scope to include degradation (REDD) and the Plus which refers to carbon stock enhancement (CSE), sustainable forest management (SFM) and biodiversity conservation.

Ghana will include the full scope of REDD+ interventions as part of its strategy, but the implementation of these interventions will depend upon the availability of resources to implement the associated activities and the capacity to monitor and measure emission reductions or removals. In order to achieve the intended results, effective monitoring will need to be undertaken in compliance with approved methodologies for monitoring avoided deforestation (AD), avoided forest degradation (ADD), sequestration of carbon (CSE), or other impacts. Accounting for the emission reductions (AD or ADD) or removals (CSE) will also have to follow UNFCCC approved accounting methodologies as outlined in the SBSTA guidelines and the IPCC Good Practice Guidance (GPG).

AD, ADD and CSE will be monitored and accounted for from the onset of REDD+ implementation whereas the other elements (i.e. SFM and biodiversity conservation) will be included as clearer guidelines on them emerge and the national capacity to implement and monitor them in a cost-effective manner is fully developed. Currently, methodologies for biodiversity conservation are available under the Climate Community and Biodiversity Alliance (CCBA) standards. Ghana's Voluntary Partnership Agreement (VPA-FLEGT) could also be fully operational in the coming years, making it possible to realize SFM as part of the country's REDD+ mechanism.

Figure 4: The components of REDD+ in Ghana

2.4 Ghana's REDD+ Implementation Strategy

Ghana's strategy is to implement REDD+ at a national scale, but to roll out concerted actions and activities at sub-national landscape scales. Initially, Ghana's R-PP articulated a "learning from the ground up" approach that focused on seven small-scale pilots that were meant to test methods and activities, and demonstrate key lessons for implementation. The majority of pilots, however, lacked the technical expertise and financial backing to make significant progress. For example, the cost of developing individual REDD+ projects and the technical work required to build project level baselines, MRV systems, and reference levels proved to be a significant barrier. Another important barrier, within the voluntary market, was the lack of available carbon accounting methodologies that could be applied to Ghana's mosaic landscape. In addition, many of the major issues that would need to be addressed, like tree tenure reform, required national level policy decisions that were beyond the scope of the individual projects.

In light of these challenges, and the growing international consensus that large-scale action is needed to produce results, Ghana's strategy is to focus on the implementation of large scale, sub-national programmes that follow ecological boundaries (jurisdictions) and are defined by major commodities and drivers of deforestation and degradation, within a set of over-arching, national activities and the encompassing national REDD+ framework. This dual national-jurisdictional approach to implementation enables landscape scale actions and cross-sector collaboration, coupled with private sector participation and community-based mobilization that together will produce collective impacts, while promoting the operational and accounting efficiencies that come from using a single set of systems and processes.

The eco-zone jurisdictional boundaries were designated based on Ghana's nine forest ecosystem types (Figure 5). Some of the smaller ecosystem types have been clustered, like the HFZ, while others, like the Savanna Woodland Zone, easily stand alone, to create REDD+ "eco-zones" for implementation that are based on common ecological boundaries, conditions, drivers, and commodities.

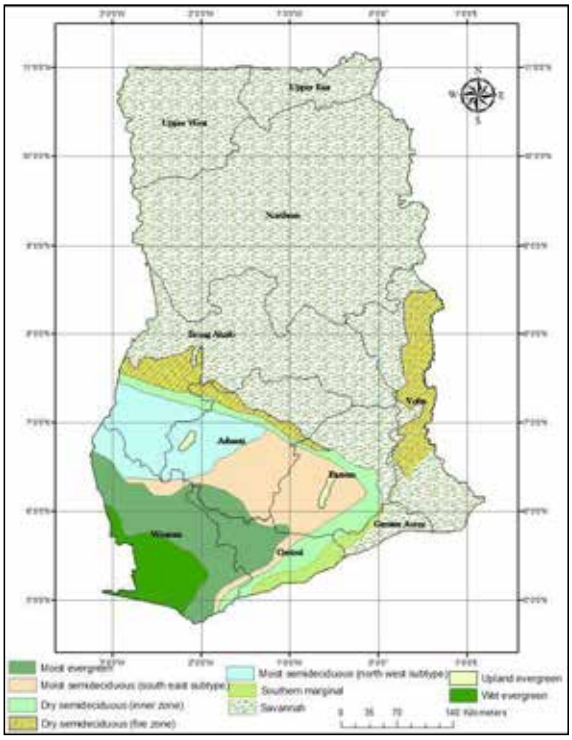


Figure 5: Map of Ghana's forest ecosystems

REDD+ activities and interventions that fall within the defined eco-zone landscapes will be incorporated into these jurisdictional programmes. This will enable these projects and activities to benefit from the jurisdiction's reference level as well as the National Forest Monitoring and MRV system and other systems and processes. This sub-national approach alleviates the challenge of permanence and leakage in the programme area that would otherwise have been present and can create problems for smaller projects. It will also reduce the cost and technical effort required to establish baselines and reference levels and monitor forest land use change.

Ghana has yet to decide, however, how emissions reductions at sub-national and national scales will be allocated (or credited), or how payments will be distributed. With respect to jurisdictions, there are two main options.

In Option 1, crediting or payments for emission reductions can either go to the jurisdiction (programme entity) or directly to projects. In Option 2, credits or payments will only be made to the jurisdictional programme entity and then "payments for services" can be allocated to the various projects and activities in exchange for demonstrated performance against an agreed set of indicators (e.g. number of hectares protected). For projects that fall outside of the defined eco-zone jurisdictions, a decision is also required as to whether these projects can receive direct crediting, or whether payments will be made to a national entity and then incentives transferred to projects.

Through international and national exchanges on jurisdictional REDD+, a national climate smart cocoa working group process and other stakeholder discussions and consultations, three national and sub-national jurisdictional REDD+ programmes have emerged as being the main implementation areas for the next five years (Figure 6).

- The Emission Reductions Programme for the Cocoa Forest Mosaic Landscape (The Cocoa Forest REDD+ Programme).

- The Emission Reductions Programme for the Shea Landscape of the Northern Savanna Woodland (The Shea Savanna Woodland Programme)

- Ghana's Programme for Policy and Legislative Reforms on Tree Tenure and Carbon Rights (Policy and Legislative Reform Programme).

The strategy also identifies other jurisdictions that require further analysis and consideration, which could be developed into emission reductions programme landscapes for implementation (Figure 7). If portions of the country are not covered by a sub-national programme, then REDD+ projects could be implemented and possibly nested within the national level, without fitting within a sub-national, landscape.

1. Ghana's Emission Reductions Programme for the Cocoa Forest Mosaic Landscape

- **Strategy intervention**: Improving land use & socio-economic dev in the High Forest Zone and cocoa growing area
- **Level**: *Sub-national*
- **Eco-Zone**: *High Forest Zone (moist semi-deciduous (NW & SE), moist evergreen & wet evergreen forest types*
- **Commodity**: *Cocoa, oil palm, other tree crops*
- **Drivers**: *Cocoa expansion, sun cocoa, other tree crop expansion, illegal mining and illegal logging*

2. Ghana's ER Programme for the Shea Landscape of the Northern Savanna Woodland

- **Strategic Intervention**: Addressing wood harvesting and agric. practices in the savannah woodland landscape
- **Level**: *Sub-national*
- **Eco-Zone**: Savannah woodland
- **Commodity**: *Shea nut, cashew, yams*
- **Drivers**: *Charcoal, illegal logging, agricultural expansion, illegal mining, wildfire etc.*

3. Ghana's REDD+ Program for Policy & Legislative Reforms on Tree Tenure & Carbon Rights

- **Strategic Intervention**: Policy and legislative reforms to support REDD+ and sustainable forestry
- **Level**: *National*
- **Focus**: *Addressing indirect drivers from tree tenure and lack of carbon rights via legislative reforms*
- **Leverages**: *National interventions like FIP, VPA-FLEGT, Cocoa Sector Strategy*

Figure 6: Priority jurisdictional programmes for implementation

ER Program for the Transitional Forest Landscape

- **Level**: *Sub-national*
- **Eco-Zone**: *Dry semi-deciduous forest type (inner zone and fire zone)*
- **Commodity**: *Food crops belt*
- **Drivers**: Wildfire, cocoa and other *tree crop expansion, illegal mining and illegal logging*
- The forests situated within the transitional zone are highly suseptible to climate change and threatened by wildfire. It is an area that produces an abundance of food crops and the soils are excellent for plantation development. New research and assessments are needed to determine the full extent of this area as it has likely expanded since the forest types were determined over twenty years ago.

ER Programme for Coastal Mangroves

- **Level**: *Sub-national*
- **Eco-Zone**: Coastal mangroves
- **Drivers:** Cutting mangroves for fuelwood, Settlement expansion & development, pollution
- Despite the fact that mangroves are a highly threatened natural forest ecosystem along Ghana's coasts and inland waterways, to date they have not been the focus of any serious national REDD+ consideration, though USAID/USFS have been supporting work in this area for more than 5 years. The lack of national attention appears to be a critical oversight. Recent work in Ghana suggests that approximately 2,000 Mg/ha are stored in the mangrove system, one hundred fold more than in tropical high forests. The magnitude of carbon stocks coupled with the existing threat to these unique and environmentally important forest types creates a strong imperative for REDD+ action.

ER Programme for the Togo Plateau

- **Level**: Sub-n*ational*
- **Eco-Zone**: *Dry semi-deciduous forest in the Togo Plateau*
- Along Ghana's mid-eastern border with Togo, there is an area of Volta Region, commonly referred to as the Togo Plateau, which contains some of the highest carbon stocks in the country due to a mosaic of protected forests, off-reserve forest patches, high biomass cocoa farms and other complex agroforestry systems. It is also an area that is rich in biodiversity. Yet this landscape has received the least attention of all possible REDD+ interventions. Resources should be allocated to explore the potential for REDD+ interventions in this stretch of the Volta Region, either as a sub-national programme or as a project that is nested within the national approach.

Figure 7: Potential programmatic landscapes for REDD+ implementation

2.4.1 Emission Reductions Programme for the Cocoa Forest Mosaic Landscape

In April, 2014, Ghana's Emission Reductions Programme for the Cocoa Forest Mosaic Landscape was formally accepted into the World Bank's Carbon Fund pipeline, opening up the possibility for Ghana to sign an Emission Reductions Purchase Agreement (ERPA) worth up to US$ 50 million.

This programme represents an innovative, unique, and highly ambitious approach to reduce deforestation and degradation in a sub-national landscape that follows the ecological boundaries of the HFZ and covers approximately 5.9 million ha (Figure 8). The programme seeks to significantly reduce emissions driven by cocoa farming and other agricultural drivers, as well as illegal logging and illegal mining, in a manner that will secure the future of Ghana's forests. The programme will also significantly improve incomes and livelihood opportunities for farmers and forest users, and establish a results-based planning and implementation framework through which the government, the private sector, civil society, traditional authorities, and local communities can collaborate towards this goal.

Ghana's ER Programme conservatively anticipates that it will produce 18.5 MtCO2e of emission reductions from deforestation in the first 5 years (2016-2020) of the programme. Given the effort required to implement a landscape scale, cross sector, inter-governmental, multi-stakeholder, results based programme, and acknowledging that fostering changes in how people use the land and manage trees takes time; Ghana recognizes that this represents a highly ambitious target, but one that must be pursued. Ghana would expect the Carbon Fund to purchase the full magnitude of emission reductions (ERs) produced up to 2020, with other buyers to follow-suit. As the programme's performance effectiveness improves in the ensuing years (2021-2036), the programme expects its net emission reductions from deforestation to total 216.7 MtCO2e, assuming 45% effectiveness and minus a 15% buffer allocation.

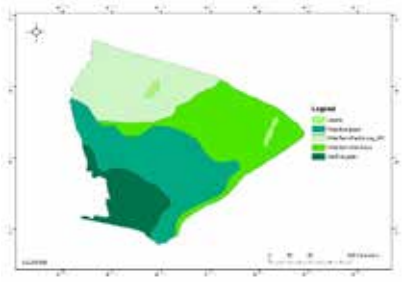


Figure 8: Eco-zone landscape of the Emission Reductions Programme for the Cocoa Forest Mosaic Landscape

If no effort is made to curb deforestation in the programme area, then Ghana expects the business-as-usual scenario to carry forward and produce at least 598.2 MtCO2e of emission from deforestation, based on a 10-year historical deforestation rate (2000-2010) of 1.4% per annum.

Ghana's Forestry Commission and Cocoa Board are the main government institutions that will be responsible for managing and implementing Ghana's "Cocoa Forest REDD Programme", in concert with the Ministry of Lands & Natural Resources (which is responsible for the Forest Investment Programme (FIP)) and private sector stakeholders, who will provide critical upfront engagement and investment. Together, they will establish a Programme Steering Committee, comprising key stakeholders that will be responsible for the design, management, investment and implementation of the programme. The Steering Committee will be linked to the National REDD+ Working Group and will liaise directly with the Natural Resources and Environmental Governance (NREG) programme.

Initial processing of cocoa by farmers in Ghana

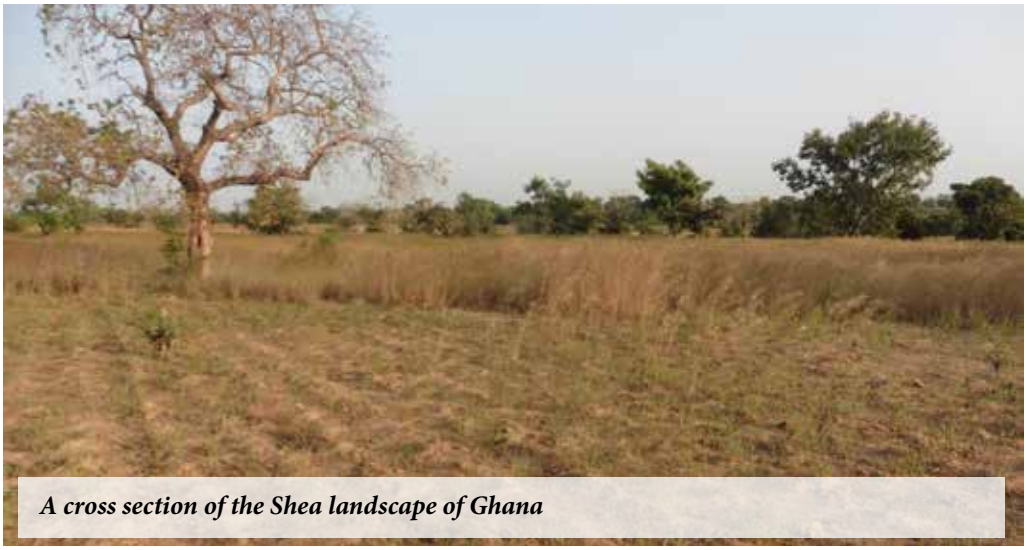
2.4.2 Emission Reductions Programme for the Shea Landscape of the Northern Savanna Woodland

A programmatic REDD+ initiative targeting the Shea landscapes of the north could be designed to promote sustainable approaches to land use, forest conservation, and enhanced community-based resource management to stem the on-going degradation and deforestation from illegal logging, charcoal production, agricultural expansion

and illegal mining that threaten the forests and Shea production system. This programme would also be an important initiative to strengthen rural economies in the north, support female-dominated shea harvesting systems and revenue streams and address poverty which is widely considered to be endemic in this zone.

This forest eco-zone, which covers vast swathes of Ghana's landmass (over 60%) is fast losing its preponderance of forests, highly valuable savanna woodland species (including rosewood and shea trees) and wildlife due to destructive charcoal production, illegal logging, unsustainable farming practices, illegal mining, hunting, livestock grazing and human induced fires. The Northern Savanna Woodland landscape is an important source of several Ghanaian staples, including root tubers like yam, cereals such as millets, assorted vegetables and nuts, and with its large tracts of grasslands, it hosts most of Ghana's livestock population, helping in a major way to meet the protein needs of the country. Of considerable concern is that the area is highly susceptible to climate change, which further magnifies the poverty and natural resource degradation.

Various commodities of global interest that come from the area include shea butter and rosewood. Shea trees (Vitellariaparadoxa) occur naturally in the landscape and the fruits are harvested by women to produce shea butter, a product that is used and consumed locally, nationally and globally. However Shea trees are being lost to indiscriminate charcoal production driven by a burgeoning urban demand. African Rosewood is a CITES listed endangered species that is highly sought after in China and is being illegally harvested and exported. Addressing the threats to these species, as well as the other drivers and sustainable development challenges will require robust policy responses coupled with well thought out activities. These could include sustainable woodfuel and charcoal supply initiatives, promotion of climate-smart agriculture and agroforestry systems, tree planting and native species plantations and woodlots, landscape level land use planning, developing a Shea landscape standard of certification and wildfire management efforts.



A cross section of the Shea landscape of Ghana

2.5 Time Frame and Phases

Readiness Preparation Phase (2008-2016)

Ghana will complete its REDD+ readiness preparation phase and submit its Readiness-Package (R-Package) in mid-2016 for international approval. During 2016, the Cocoa Forest REDD+ Program will also undergo a preparation and design phase to refine the baseline and reference level, plan implementation and financing and complete other critical work. The programme plans to submit its Emission Reductions Programme Document (ER-PD) in mid-2016 with the goal of signing an Emission Reductions Programme Agreement (ERPA) in early 2017.

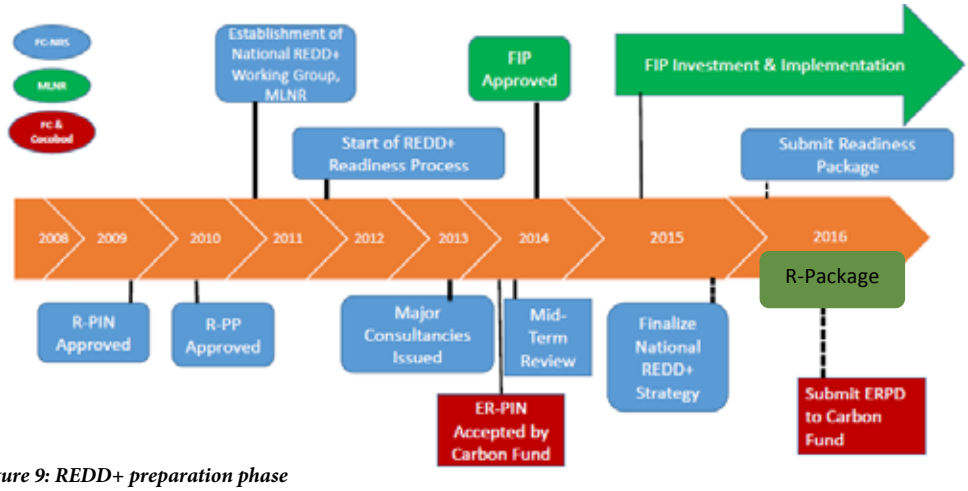


Figure 9: REDD+ preparation phase

Initiation Phase: Early Implementation, Monitoring & Performance Based Payments (2017-2021)

The initiation phase of REDD+ will focus on implementing the Cocoa Forest REDD+ Program, the Programme for Policy and Legislative Reform and begin planning the Shea Landscape Programme for the Northern Woodland Savannah. Monitoring will begin, and assuming that the programme is able to demonstrate an impact, performance based payments will result.

Acceleration & Upscaling (2022-2030)

During this period, REDD+ will be in full implementation mode, and scaled up to cover the whole country, with periodic monitoring and reporting taking place and performance based payments being received.

Consolidation Phase& Planning Forward (2031-2035)

This phase marks the end of the Cocoa Forest REDD+ Program, as currently articulated. Final payments for the program will be received, assuming performance is demonstrated. A decision will need to be taken on the future of REDD+, in light of how other programmes are progressing and the national and international context.

2.6 Financing REDD+

According to Ghana's national REDD+ tracking project (REDDX), from 2009 through 2014, Ghana received just over US$98 million in commitments to REDD+, and over US$29 million in tangible support of REDD+ . This latter represents funds that were disbursed by the original donors and intermediary institutions to in-country recipients, including the Government of Ghana (GoG), NGOs, research institutions and some companies. Of the funds received in-country, activities have primarily focused on stakeholder engagement, institutional strengthening and improved forest and land management. To date, no project or activity has come close to producing verifiable emissions reductions[5] .

Ghana's Readiness Preparation Phase has received adequate support, as evidenced by the US$ 8.4 million grant from the FCPF to the NRS to build capacity and understanding, conduct analyses and develop the required mechanisms and structures to support the implementation of REDD+. The additional funding to other government institutions and civil society organizations has also gone a long way to further support this process.

The majority of committed funding is for Ghana's FIP; however there is still a significant gap in financing to initiate implementation. The REDD+ financing strategy is therefore to maximize existing sources of investment by the private sector and to leverage synergistic initiatives of NGOs and development partners, while seeking new investments to support REDD+ implementation activities. It is expected that revenue will be generated as a result of performance-based payments and a proportion of this can be reinvested into sub-national REDD+ programmes. The majority of available or anticipated funding applies to national level REDD+ efforts and to the Cocoa Forest REDD+ Programme; hence the prioritization of these areas. As additional finance become available, the geographic scope will broaden in line with the phased approach. The status and flow of available or potential funding is depicted in Figure 10, and described below.

It must be emphasized that for the REDD+ strategy to be successfully implemented to achieve the anticipated emission reductions, support from both public and private sources for implementation activities is imperative. A key aspect of this financing strategy is private sector investments into the production of climate smart agricultural products that will be linked to verified emission reductions.

1. Readiness Preparation Funding: Ghana's US$ 8.4 million grant from the FCPF supported all aspects of preparation with the exception of piloting. This financing has been in place since 2012 and will end in 2017. These funds to the NRS have been augmented by over US$ 20 million that have gone to other institutions and civil society organizations working on REDD+ in Ghana.

ERPD Preparation Funding: Funding to the tune of US$ 0.65 million to support full-scale development of Ghana's Emission Reductions Programme for the Cocoa Forest Mosaic Landscape has been agreed and is being used to support programme development.

2. Initiation & Upscaling of Implementation: Funding to support the actual roll out of activities and projects to reduce deforestation and forest degradation is a limiting factor to achieving REDD+.

[4]Agyei, K. and Asare, R.A. 2015. Ghana REDDX: Tracking Expenditure &Finance Flows for 2009-2014. Forest Trends, Washington, D.C.
[5]Agyei,K. and Asare, R.A. 2015. Ghana REDDX: Tracking Expenditure &Finance Flows for 2009-2014. Forest Trends, Washington, D.C

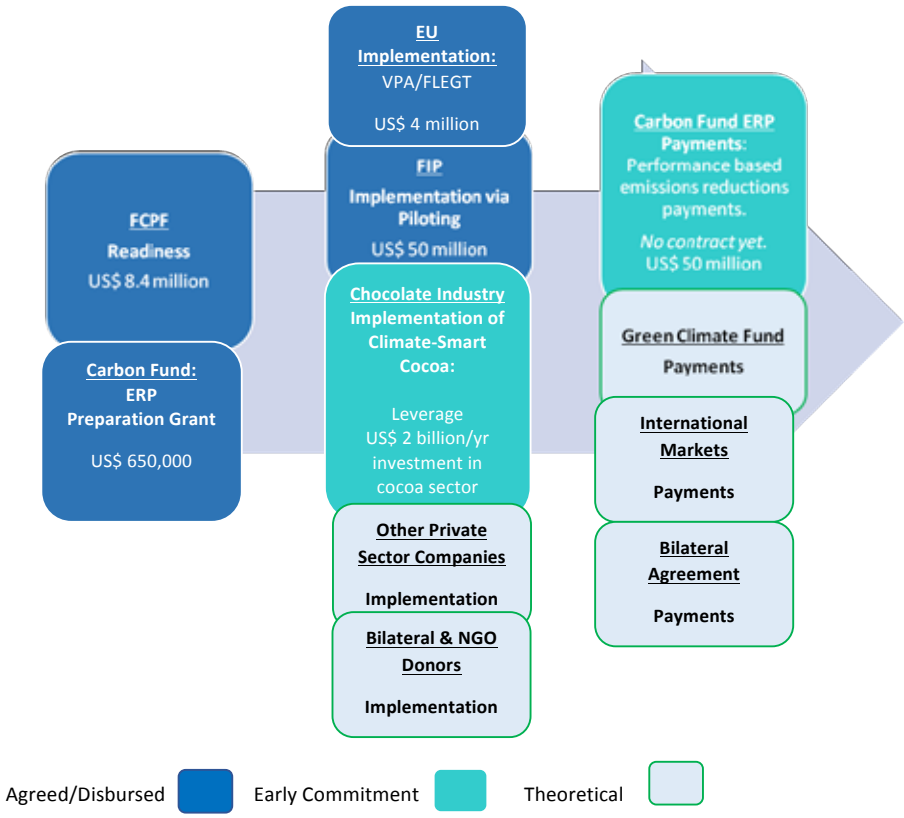


Figure 10: Ghana's REDD+ financing strategy for preparation, implementation and payments

As of now, the only available implementation funds have come through Ghana's FIP, which will receive an investment of approximately US$ 50 million into plantation development, natural forest management, climate-smart agriculture, and CREMA related projects. Therefore the goal is to leverage this financing to help achieve Ghana's REDD+ goals. The FIP funds are limited to activities in the Western Region and the Brong-Ahafo Region, which only partially align with the REDD+ implementation strategy's initial focus on the Cocoa Forest REDD+ Programme area. Therefore, while this funding is likely to complement REDD+, it is not a substitute for specific REDD+ activities focused on the first emission reductions programme landscape.

Funding will also be leveraged from the VPA-FLEGT initiative to support sustainable forest management and governance in forest reserves across the country. This financing is particularly important in addressing the lack of enforcement of forest laws and regulations.

However, to bridge the significant funding and investment gap, it is anticipated that the private sector and bilateral partners will move to support early implementation of Ghana's Cocoa Forest REDD+ Programme. The logic behind this assumption is that Ghana's national cocoa production—the second largest in the world is threatened by climate change and depends upon the ecosystem services and micro-climate that is generated by the forests. Therefore, the world's chocolate companies and licensed cocoa buying companies operating in Ghana need to invest in the sustainability of supply of cocoa beans to ensure the future of cocoa in Ghana.

There is the need to explore opportunities for ensuring that a part of the huge turnover of the cocoa industry in Ghana is channeled into interventions that will result in the sustainable supply of cocoa while guaranteeing environmental integrity. Other potential sources of domestic funding could include environmental levies and taxes on extractive industries (Oil and Mining); revenue from Payment for Ecosystem Services (PES) that can be attributed to REDD+ implementation and allocation of a specific percentage of the revenue received by Forestry Commission to support REDD+ implementation.

With the completion of the ER Programme's Implementation Plan in mid 2016, estimates of the full financial investment required will be better known. Once the programme is able to demonstrate and transact emission reductions, then it will have a greater financial capacity for continued implementation. Financing will also be required to support the development and early implementation of the other emission reductions programmes.

3. Payments for Emission Reductions: Having been accepted into the Carbon Fund pipeline for the Cocoa Forest REDD+ Programme, Ghana is very well positioned to receive up to US$ 50 million in exchange for reducing emissions within the Cocoa Forest REDD+ programme landscape. To secure this performance-based support, Ghana is in the process of drafting its ERPD and the associated Implementation Plan. These two documents will elucidate the proportion of emission reductions that Ghana would expect to sell to the carbon fund, whether there would be opportunities for other buyers, and how private sector investors would be compensated. As currently estimated (from a conservative standpoint) in Ghana's ER-PIN, the programme could generate over US$1.2 billion over the life of the programme, which equates to approximately US$ 63 million per year.

In addition to the Carbon Fund, the UNFCCC's Green Climate Fund may present additional financing and payment opportunities for Ghana's REDD+ programmes.

In light of the positive signal from the Paris Agreement, Ghana also expects that under an international climate treaty, there will be a surge in demand for carbon credits and emission reductions attended by a corresponding increase in the price of carbon as an ecosystem commodity. Such a situation could spur significant interest in emission reduction programmes and projects in the medium to long-term, serving as a stimulus for private sector investments in this emerging market.

2.7 REDD+ Payments and Benefit Sharing

In REDD+, the term "benefits" typically refers to the direct or indirect incentives and payments that derive from actions associated with reducing emissions from deforestation and forest degradation.

For approximately the first five years of implementation, most of the benefits from REDD+ will be derived from the Cocoa Forest REDD+ Programme. The Ministry of Finance (MoF) will be the contracting entity for the purchase agreement (ERPA) with the Carbon Fund, and therefore the Government of Ghana will receive the payments for emission reductions from the Carbon Fund. Plans are well-advanced for the development of the institutional framework for the mobilisation, receipt and channelling of REDD+ funds in the country. However, a central question is how the "benefits" will be shared amongst the various stakeholders.

In Ghana, it is clear that within the programmes' accounting areas and nationally, different partners, including individual farmers, CBOs, NGOs, the private sector, the government, traditional authorities, and development partners will be carrying out activities that will contribute to the generation of emission reductions. In truth, however, there can only be emission reductions if all of the partners and stakeholders work together to ensure that emissions are reduced across the accounting area, and do not decrease in one spot, only to increase in another part of the landscape. Consequently, no single organization or entity will be able to rightly claim full responsibility for emissions reductions.

It is recommended that the government establish a fund, to be managed by the Forestry Commission and Ghana Cocoa Board (COCOBOD), to oversee the use and distribution of the payments (benefits) to the various stakeholders. The government will also take on the risk of non-performance leading to non-payment. In implementing REDD+ through programmatic landscapes that promote the development of climate-smart agricultural commodities, Ghana expects to generate multiple types of benefits that will incentivise changes in actors' behaviour in different time frames. As such, benefits for REDD+ in Ghana are likely to include:

- Indirect, upfront benefits: This refers to access to resources that can play an important role in improving people's lives, and to which they had not previously had consistent or trustworthy access, if any at all. Examples include, access to extension services, credit facilities, insurance mechanisms, agricultural inputs, information services, or new revenue streams. The intended impact being that indirect benefits lead to significant increases in income and revenue streams, as well as improved wellbeing.

- Indirect, performance-based benefits: These are benefits which become available in exchange for services delivered using commonly understood performance indicators (as compared to verified emission reductions). Examples include access to non-forest / non-carbon related resources, like community development infrastructure, scholarship schemes, or the rights to benefit from or co-manage forest resources.
- Direct, performance-based benefits: This refers to cash payments that are made in exchange for services delivered using commonly understood performance indicators (as compared to verified emission reductions). Examples of performance indicators and payments could include; payments to CREMA funds for the number of hectares of forests protected, or payments to cocoa farmers in respect of the number of kilograms of climate-smart cocoa beans produced.

The government will have to share benefits vertically—from the national to the sub-national, to the local. Benefits will also have to be shared horizontally, within scales. Ghana already operates myriad benefit sharing systems within the forestry sector and in other sectors that function vertically and horizontally. It is therefore recommended that the existing, approved benefit sharing mechanisms in Ghana are modified and used for REDD+ benefit sharing.

2.7.1 Existing Benefit Sharing Arrangements in Ghana

The Constitutional Timber Revenue Sharing Arrangement, Modified Taungya System (MTS), Private Commercial Forest Plantation Scheme and Public-Private Partnership for Commercial Forest Plantation Development Scheme and Community Resource Management Area (CREMA) benefit sharing mechanisms are five frameworks with clear benefit sharing structures that have demonstrated results. In particular, the benefit sharing arrangements under CREMA, MTS and the Commercial Forest Plantation Development Programme are recommended for adoption for REDD+ implementation because they provide useful frameworks that could be enhanced and adapted for REDD+ in order to ensure effective, efficient and equitable sharing of REDD+ benefits. Other benefit sharing arrangements exist in customary land use regimes—'Abunu' and 'Abusa'—for which traditional contracts for benefit sharing based on sharecropping and land sharing agreements is well defined, although mostly verbal and undocumented. A needed step is therefore to facilitate a process with stakeholders towards documentation of these arrangements to provide more security and also avoid potential conflicts in the future.

3. GOVERNANCE OF REDD+ IN GHANA

A dynamic, responsive and contextually appropriate governance structure will be critical to the successful implementation of REDD+ at multiple scales in Ghana. This is one of the reasons why a national approach that nests jurisdictional programmes and activities is critical to realizing REDD+ on the ground. As such, management, oversight and many of the main REDD+ systems and structures will sit and operate at the national level as stated in the Warsaw Framework for a REDD+ mechanism (WFR). In addition, policy reforms and legal matters that are relevant across jurisdictions will be governed and implemented nationally. However, given the diversity of Ghana's ecosystems and the complexities underpinning its drivers of deforestation and forest degradation, implementation will predominantly occur sub-nationally according to ecological jurisdictions that can incorporate sector-specific actions, and sub-landscape scale actions or smaller initiatives.

This section outlines the institutional arrangements of Ghana's REDD+ architecture, describing the structure of management and oversight, the main technical and analytical roles and responsibilities, the existing legal/regulatory framework and priority actions, as well as the strategic consultation structure and process.

3.1 Institutional Arrangements

Ghana's National REDD+ Secretariat sits at the Forestry Commission. The scope and goals of the strategy, however, overlap with multiple institutions and agencies. While there are some cross-sector structures that have been used within the environment and natural resource sectors already (NREG being one example that facilitated coordination of donor support), Ghana's strategy for reducing deforestation and forest degradation articulates a wider and deeper level of integration and cross-sector collaboration than has occurred previously.

The strategy envisions a governance structure that is horizontally and vertically integrated to include multiple government institutions and integrated bodies comprising government, private sector, civil society, traditional authority, and community representatives; occurring at both national and sub-national levels. It is also focused on the development of new structures and mechanisms, like the MMRV system and a Safeguards Information System (SIS), to meet performance based reporting requirements on emissions and safeguards, amongst others. Figure 11 provides an overview of the various bodies that have REDD+ governance roles or linkages and their respective levels of engagement. The following sections explain these roles in greater detail.

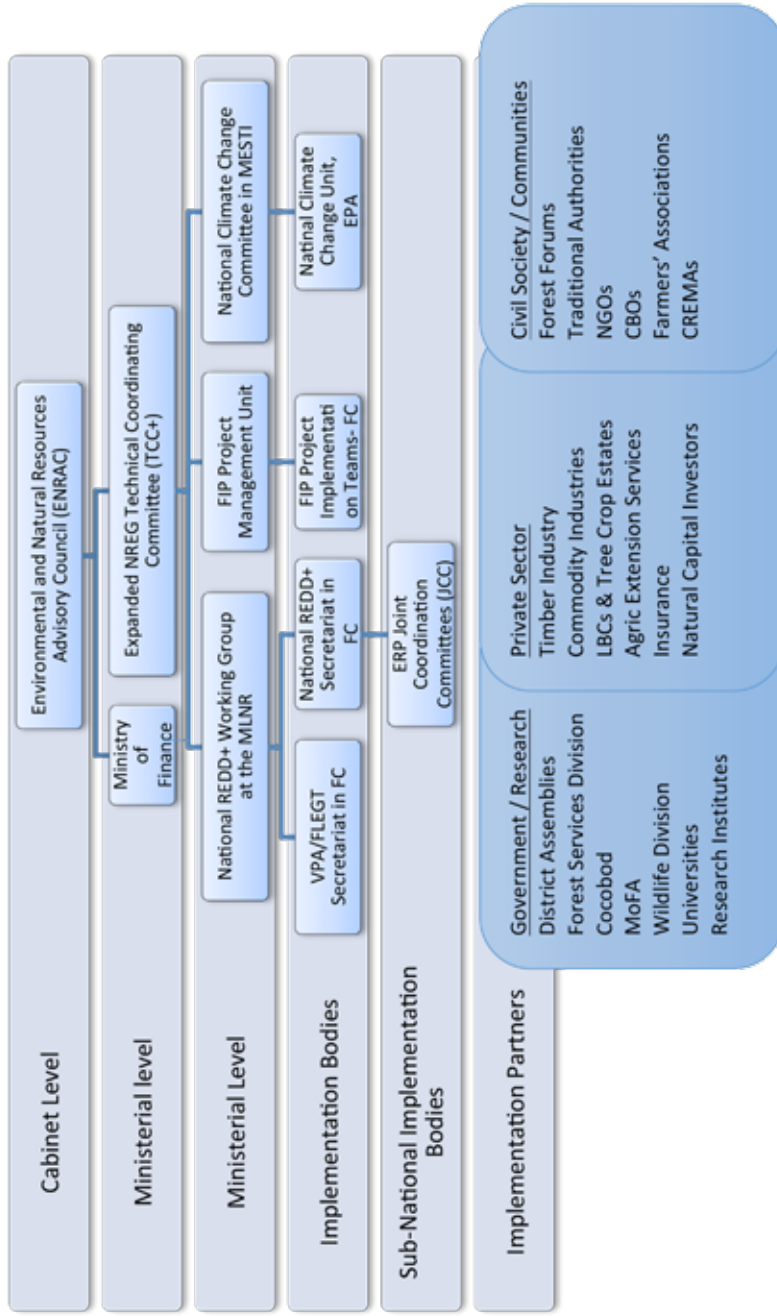


Figure 11: Ghana's national REDD+ governance and implementation architecture

3.1.1 National Level Management & Oversight

Governance at the country level will provide management, oversight, guidance, and coordination to national-scale initiatives, as well as to jurisdictional programmes and the landscape projects and activities nested within them. It will require the facilitation and coordination of cross-sectoral and public-private collaborations, as well as management and oversight of the monitoring, measurement, reporting and verification (MMRV), safeguards, dispute resolution mechanism (DRM) and SIS.

Creating an enabling policy environment, both legally and practically, is also a critical element at this level. This will involve the review, revision, or creation of policies and legislation related to tree tenure, benefit sharing, and carbon rights. Many of the below mentioned bodies (Environmental and Natural Resources Advisory Council (ENRAC), technical coordinating committee (TCC+), National REDD+ Working Group (NRWG)) will be instrumental in facilitating and overseeing this process. In addition to government actors, participation and consultation with communities and civil society in the design, testing and implementation of new policies or laws is equally expected and needed to achieve successful outcomes.

ENRAC: In theory, ENRAC is a cabinet level body chaired by the Vice President of Ghana. Its membership includes Ministry representatives, as well as representatives from the National House of Chiefs, the private sector and civil society. ENRAC is expected to meet on a biannual basis and should represent a high-level decision-making body on environmental issues in Ghana. However, ENRAC has not met for over 3 years. It is hoped that REDD+ will provide an incentive for re-engagement of ENRAC.

TCC+: The inter-sectoral Technical Coordinating Committee-Plus was established to oversee and guide the policy and institutional coordination of environmental and natural resource governance across the various government institutions. The TCC+ is chaired by MoF (Chief Director) and composed of representatives of various ministries and agencies, as well as civil society representatives.

NRWG: The NRWG is a multi-stakeholder body hosted by the Ministry of Lands and Natural Resources (MLNR) that is responsible for providing advice and guidance on all aspects of REDD+. It is jointly chaired by the Deputy Minister for Lands and Natural Resources and another member elected by the NRWG. The membership of the NRWG is drawn from relevant Ministries, Departments and Agencies (MDAs), private sector, civil society, local communities and landowners/ traditional authorities.

NRS: The NRS is responsible for the day to day coordination and management of Ghana's REDD+ programme, with support from the FCPF and other national and international stakeholders. The NRS is hosted by the Climate Change Unit (CCU) of the Forestry Commission. The NRS has been the frontline entity responsible for the development and implementation of Ghana's REDD+ readiness process. The NRS is mandated to ensure that the country is ready to implement REDD+ and will be responsible for the progressive upscaling over the next twenty-plus years. Once FCPF funding support comes to completion, the strategy is for the NRS to be supported by the revenue generated from payments received for reductions.

NRWG SUB-WORKING GROUPS: Seven (7) sub-working groups were organized under the NRWG, and convened by the NRS to actively review, critique and provide feedback on reports from consultancies commissioned during the REDD+ readiness process, as well as the ERPD development process. An important function of the sub-working groups is to provide technical backstopping to the NRWG's decisions and advice to the Minister (MLNR).

The existing sub-working groups include:

- Measurement, Reporting and Verification (MRV) & REL/RL
- Consultation and Participation
- Policy, Legislation and Governance
- Safeguards
- Monitoring and Evaluation
- REDD+ Demonstration
- Gender

3.1.2 Technical & Analytical Roles and Responsibilities

Monitoring, Measurement, Reporting, and Verification

Though yet to be fully developed and tested, at this stage in the Readiness process Ghana's strategy for the MMRV system is to spread responsibilities across three main institutions based on their established mandates and technical capacities. However, monitoring and evaluation support will be provided by research institutions and external MMRV experts (Figure 12).

1. The National REDD+ Secretariat /Climate Change Unit will have overall management and oversight responsibilities for MMRV. Its

role will be to monitor UNFCCC guidance, oversee the process of assessing the SOPs and results and plan for improvements.

2. The Forestry Commission's Resource Management Support Centre (RMSC) will provide technical expertise for forestmonitoring and measurementincluding day to day operations, implementation of SOPs, and management of improvement processes in collaboration with key stakeholders.
3. The EPA will play the lead role in reporting emissions ernationally, contracting and managing third party QA/QC services, ting technical assessments and third party verification, and producing Ghana's National Communications, while also collating requirements for the improvement of the SOPs over time.
4. Research and development partners including research and academic institutions will help to monitor and evaluate data,

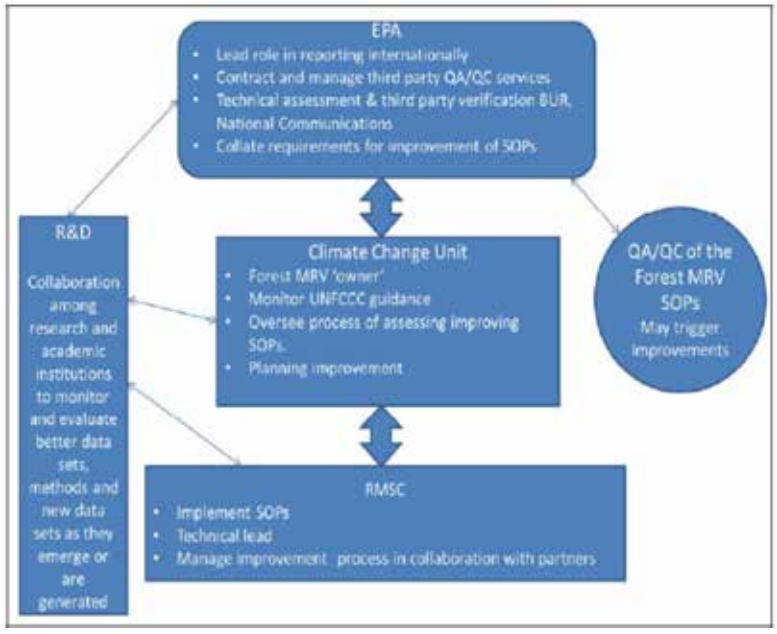


Figure 12: Institutional roles and responsibilities of Ghana's MMRV system

Information System and Database: Integrating SIS, Carbon Accounting, and

Ghana recognizes that to successfully implement REDD+ and demonstrate results, it will require an information system and data management platform to serve as a repository for information on emission reductions, safeguards and other critical indicators. To date, the existing system only focuses on gathering information on REDD+ donors, recipients, and activities under the REDDX project.

It is important to note that because Ghana has yet to fully develop this system or build the full operational capacity, and given that a second round of consulting work is underway (as of November, 2015, to develop Ghana's FRL and MMRV system), it is possible that the technical and analytical roles and responsibilities will need to change in the future.

The strategy is to initially develop a comprehensive information system for the Cocoa Forest REDD+ Programme and then scale-up the system to the national level. The system should be designed in such a manner as to provide information on emission reductions, as well as other indicators required to trigger payments to stakeholders or to demonstrate impacts. The information system should enhance transparency, accountability, efficiency and environmental and social integrity in Ghana's REDD+ process.

To establish this system, Ghana's strategy is to work with experts to assess existing information and tracking systems in the environment sector, as well as the requirements for international reporting under the UNFCCC so as to develop the most appropriate and compatible system and to avoid functional overlaps. With the technical experts, Ghana will then move to develop a web-enabled information database/registry that supports open sharing and equal access to information.

In developing the system, recommendations will be made on the appropriate institutional arrangements, including an Administrator and a System Operator. Forest Monitoring will happen at RMSC. It is recognized that capacity will have to be built, and that in-built security features will need to be developed to ensure that data entered is not compromised.

Institutional Arrangements for Benefit Sharing

As previously outlined, the government will manage emission reductions payments through the establishment of a fund. However, it is recommended that programmatic,

multi-stakeholder governance bodies (MGB) are constituted to advise government on the distribution of benefits, and that an independent monitoring and audit group (IMAG) be constituted to audit the disbursement of carbon and non-carbon benefits. Access to information from the information system and reports generated by the system would be critical to enabling these bodies to function.

3.1.3 Sub-National Institutional Arrangements for Implementation

At the sub-national level, Ghana will implement REDD+ using a jurisdictional approach [See Section 2.5]. Overarching management and monitoring of emissions reductions, safeguards and indicators, will be centralized in line with the above systems and institutions, but the day to day oversight and management of sub-national programmes will sit with Joint Coordinating Committees (JCC). JCCs will be made up of 3-5 members and will be responsible for liaising and coordinating with other key stakeholders towards the implementation of the REDD+ jurisdictional programme. On the ground, the JCC will receive support from the relevant regional and district level government offices as appropriate.

For the Cocoa Forest REDD+ Programme, the JCC is made up of the Head of the NRS, the Director of Research, Monitoring and Evaluation Unit of Cocobod and the FC representative to the FIP. The membership of the JCCs for the other jurisdictional programmes is yet to be determined.

The JCCs and the institutions they represent, however, do not have the legal title to the land. In Ghana, the majority of the land is owned by the Traditional Authorities and other local landowners. Consequently, local level governance platforms and mechanisms will be needed to help facilitate implementation at the landscape scale and at the community scale in order to ensure the legitimacy and legality of the activities.

As bridging entities, the Forest Forums and the Regional Houses of Chiefs will play key governance roles in legitimizing and supporting implementation at national, regional, district and local levels. The actual roll-out of activities in the landscape will involve multiple stakeholders with varied roles, responsibilities and interests, and will require strong coordination, agreement and aggregation on the ground. For these reasons, Ghana's strategy for REDD+ supports the use of community-based land-use management mechanisms that are backed by laws and policies, or are in the process of receiving legislative backing. Ghana already has more than twenty years of experience with a range of community based natural resources management (CBNRM) mechanisms and processes, including, Participatory Forest Management

(PFM), Community Resource Management Committees (CRMC), Dedicated Forests (DF), and Community Resource Management Areas (CREMA), the most widely tested of these mechanisms.

Originally, the Community Resource Management Area (CREMA) mechanism was developed in Ghana to facilitate community-based wildlife management and habitat protection, with the aim of creating opportunities for income generation and poverty reduction. In light of Ghana's REDD+ readiness process, CREMAs are now fully endorsed structures for implementing REDD+ at a community-based landscape level. There are now more than 30 CREMAs in Ghana. The mechanism is an innovative natural resource governance and landscape management tool that authorizes (via a devolution of authority from the Minister) communities to manage their natural resources for economic and livelihood benefits. At a theoretical level it conforms to the ecological, socio-cultural and economic factors that drive resource-users' decision process and practices. From a REDD+ standpoint, the CREMA has the potential to help solve many of the key challenges for implementing REDD+ on the ground, including small-holder aggregation, FPIC, ensuring permanence, preventing leakage, clarifying land tenure and carbon rights and enabling equitable benefit sharing arrangements.

In places where CREMAs or other community-based structures do not exist or are in the early stages of development, the planning, implementation and oversight of activities may still be needed. Ghana's strategy therefore recommends alternate entities that could potentially take the lead in aggregating farmers and coordinating stakeholders. One of these entities is the District Assembly. Under the concept of decentralization in national governance systems, District Assemblies (DAs) are expected to play an important role in fostering institutional coordination and ensuring effective and sustainable natural resources management at the local level. It is therefore envisaged that the DAs will champion the implementation of REDD+ interventions at the grassroots' level working in close collaboration with the decentralized agencies, e.g. MOFA, FC, COCOBOD, etc. as well as the various CREMAs. Other entities which could complement the work of CREMAs in REDD+ implementation are the other CBNRM platforms listed above, the Traditional Authority and farmer associations or groups.

3.1.4 Safeguards Institutional Arrangements

The NRS and the sub-working group on safeguards, working in close collaboration with the Environmental Protection Agency (EPA) will be responsible to ensure that safeguards are taken into consideration in the development of each sub-national programme's implementation plan, and that the REDD+ information system is

equipped to monitor social and environmental indicators and generate status outputs.

Ghana has conducted a Strategic Environmental and Social Assessment (SESA), and developed Environmental and Social Management Framework (ESMF) and Resettlement and Policy Framework (RPF) to ensure that safeguards-related issues are integrated into the REDD+ process. The ESMF establishes clear procedures and methodologies for the environmental and social assessment review, approval and implementation of interventions. It specifies appropriate roles and responsibilities and outlines the necessary reporting procedures for managing and monitoring environmental and social concerns. It is envisaged that the ESMF will be executed by the Forestry Commission in collaboration with other partners such as MLNR, COCOBOD, MOFA, EPA, Water Resources Commission, Lands Commission, etc. Detailed roles and capacities of these institutions have been captured in Ghana's ESMF document.

3.2 Policy and Legal Environment

The government of Ghana recognizes that climate change is already negatively affecting Ghana in myriad ways and that it is likely to continue to hamper Ghana's environmental and socio-economic prospects in the coming decades . This challenge is further magnified by the losses that come from illegal logging, illegal mining, and expansive agricultural practices. For instance, in 2010, it was estimated that the total economic cost of poor environmental management was in excess of10% of Ghana's GDP . In an effort to promote greater resilience and to reduce these effects recent economic, environmental and social policies have moved to directly address these threats.

3.2.1 Alignment with Policies

Ghana's REDD+ Strategy is in direct alignment with Ghana's current environment and natural resource policy framework, and is very well positioned to catalyze key actions and investments on the ground to bring about many of the needed changes and performance-based results for both mitigation and adaptation priorities.

Specifically, REDD+ and the Cocoa Forest REDD+ Programme feature prominently in Ghana's Intended Nationally Determined Contribution (INDC) to the UNFCCC, which commits to reducing the country's emissions, across all sectors, by 40%. Ghana's REDD+ Strategy also synchs with relevant National Policies, Strategies and Development priorities as outlined in Table 3.

[6]*Anim-Kwapong, G.J. and Frimpong, E.B. 2005.Vulnerability of Agriculture to Climate Change – Impact of Climate Change on Cocoa Production.Cocoa Research Institute of Ghana. New TafoAkim*

Table 3: Overview of relevant National Policies, Strategies and Development priorities that align with Ghana's REDD+ Strategy

Relevant National Policies, Strategies and Development Priorities	Overview
An Agenda for Transformation: The Coordinated Programme of Economic and Social Development Policies (2014-2020)	This Agenda outlines medium-term policy interventions for effective natural resource management which covers: a. Biodiversity and protected areas management; b. Land management and restoration of degraded forests; c. Wetlands and water resources management; d. Community participation in natural resources management; and e. Climate variability and change.
Ghana's Shared Growth and Development Agenda II (GSGDA) and attainment of the Millennium Development Goals (MDGs) (2014-2017)	The policy has three distinct pillars: private sector competitiveness, human resource development, and good governance with civic responsibility. The medium term development plan will promote reforestation programmes, enforce bye-laws on illegal lumbering and encourage the establishment of community woodlots.
National Climate Change Policy (2012)	The National Climate Change Policy (NCCP) was developed in 2012 with the vision of ensuring a climate resilient and climate compatible economy while achieving sustainable development through equitable low carbon economic growth.
National Climate Change Policy Action Programme for Implementation: 2015–2020	The purpose of the national climate change master plan is to put in place robust measures needed to address the challenges posed by climate change and climate vulnerability. Policy Focus Area 4 seeks to design and implement intervention that increase carbon sinks.
The 2012 Forest and Wildlife Policy (2012)	This is the parent sector policy aimed at the conservation and sustainable development of forest and wildlife resources in Ghana.
Draft Ghana Forest Plantation Strategy 2015-2040	The goal of this strategy is to achieve sustainable supply of planted forest goods and services to deliver a range of economic, social and environmental benefits.
The National Land Policy (1999) with the associated Land Administration	The policy outlines specific actions that are consistent with the Mission and Vision of the Forestry Commission and the goals of REDD+. Under security of tenure and protection of land rights, it clearly states that

[7] *GoG (2010) Medium Term National Development Policy Framework: Ghana Share Growth Development Agenda (GSGDA), 2010-2013. National Development Planning Commission (NDPC), Policy Framework Volume I. http://www.mofep.gov.gh/sites/default/files/docs/mdbs/2010/final_draft_mtdpf.pdf*

Relevant National Policies, Strategies and Development Priorities	Overview
Project (Phase II).	decision-making with respect to disposal of land should take into consideration: • The natural resources of the land; • Conservation of land for future generation; • Protection of land rights of the present generation; and • Accountability to the subjects for whom the land is held in trust.
National Environment Policy 2014	The National Environment Policy commits to the principle of optimum sustainable exploitation of the ecosystem resources. The policy recognizes serious environmental challenges including loss of biodiversity, land degradation, deforestation and desertification, wildfires, illegal mining, air and water pollution facing Ghana.
Low Carbon Development Strategy	The overall objective of this strategy is to contribute to global climate change mitigation through the development of an economically efficient and comprehensive Low Carbon Development Strategy (LCDS) for Ghana together with a monitoring reporting and verification system and an action plan.
Forest Law Enforcement, Governance and Trade (FLEGT)	Forest Law Enforcement, Governance and Trade (FLEGT) Initiative (as part of the Voluntary Partnership Agreement (VPA)), and the projects under Ghana's FIP all provide a strong set of complementary channels for addressing the major drivers of deforestation and degradation in the ERP landscape, and for moving forward in a performance-based and climate-smart manner.
The National Tree Crops Policy	The policy states the vision as "a competitive and sustainable tree crops sub-sector, with focus on value chain development and improved technologies to create job opportunities, ensure food security, enhance the environment and improve livelihoods."
Ghana Cocoa Sector Development Strategy (CSDS) II, 2015	The focus of the CSDS II is on sustainability through economic empowerment of smallholder cocoa farmers. The vision is to create a modernized, resilient and competitive cocoa environment where all stakeholders strive toward a sustainable cocoa economy in which farmers and their communities can thrive.
National Climate Smart Agriculture and Food Security Action Plan (2016-2020)	The Action Plan is an effort to translate to the ground level the broad national goals and objectives in climate-smart agriculture.
National Riparian Buffer Zone Policy 2011	The Ghana Riparian Buffer Zone Policy aims at ensuring that all designated buffer zones along rivers, streams, lakes, and reservoir and other water bodies shall be sustainably managed for all.
Ghana National Bioenergy Policy 2010 - Draft	The Bioenergy Policy paper addresses the policy issues and recommendations for achieving the overall objectives of the Government in ensuring sustainability of the bioenergy sector.

Relevant National Policies, Strategies and Development Priorities	Overview
Ghana Strategic Investment Framework (GSIF) for Sustainable Land Management (SLM) (2009 – 2015)	The goal of the GSIF is to "support the country's priorities in improving natural resource based livelihoods by reducing land degradation, in line with the Millennium Development Goals 1 (Extreme Poverty and Hunger) and 7 (Extreme Environmental Sustainability).
Sustainable Development Goal 2015	Sustainable development goals are a set of global development goals adopted to end poverty, protect the planet and ensure prosperity of all. Each goal has specific targets to be achieved over the next 15 years (2016-2030).
National Gender Policy (2015)	The overarching goal of this Policy is to mainstream gender equality concerns into the national development processes by improving the social, legal, civic, political, economic and socio-cultural conditions of the people of Ghana particularly women, girls, children, the vulnerable and people with special needs; persons with disability and the marginalized.

**For detailed overview of relevant National Policies, Strategies and Development priorities refer to annex 1*

Ghana's REDD+ strategy is also in alignment with other international treaties and conventions including, Convention on International Trade in Endangered Species (CITES) and Convention on Biological Diversity (CBD).

3.2.2 Ghana's Legal Framework, Challenges for REDD+ and Strategy to Resolve Key Issues

The legal framework that underpins REDD+ starts with Ghana's 1992 Constitution, which states in article 36(9) that "the State shall take appropriate measures needed to protect and safeguard the national environment for posterity; and shall seek co-operation with other states and bodies for purposes of protecting the wider international environment for mankind." With respect to forests, Section 269 provides for the establishment of the Forestry Commission and its functions, and gives the State control over all natural resources of Ghana, decoupling them from the land, and stipulating that natural resources are to be vested in the President on behalf of and in trust for the people as a whole.

Forest reserves and the associated natural resources are thereby protected by the state and are managed by the government in trust for the stool landowners. However protection and management of the forest estate does not affect land and forest ownership, meaning that though forest reserves are managed by the FC, the land sand forest thereon are owned by communities (the people) as represented by their chiefs and traditional authorities.

With respect to ownership and commercial exploitation of trees, Ghanaian law makes a distinction between naturally occurring and planted trees.

According to the Timber Resources Management Act (1997) and the follow-on Timber Resource Management Regulations (1998), the economic rights to naturally occurring timber, whether on-reserve or off-reserve, is vested in the state and it is a statutory offence to harvest these trees without the consent of the state. However, timber trees may be felled for non-economic reasons, such as clearing forested land for agricultural purposes. In addition, section 4 of the Timber Resources Management Act (1998,Act 547) as amended Act 617 in 2002 clearly states timber rights do not apply to land with private forest plantation or land with timber grown or owned by an individual or group.

The revenue from timber and other natural resources is shared in a constitutionally agreed benefit sharing arrangement. On Stool Lands both on and off-reserve where resources are managed and extracted by the Forestry Commission benefit sharing arrangements have been put in place for relevant stakeholders namely FC, stools, traditional authorities, Office of the Administrator of Stool Lands and District Assemblies. The schedule of benefit sharing is 50% to the FC, 25% to district assemblies, 11% to stools, 9% to traditional authorities and 5% to the Office of the Administrator of Stool Lands.

With respect to land, there are two land tenure systems in Ghana, customary land and statutory or public land. Land held under customary law is owned by stools, families or clans and is usually held in trust by the chief, head of family or clan for the benefit of its members. Customary land predominates, accounting for over 70% of lands in Ghana. Ownership of public lands on the other hand, is vested in the President on behalf of and in trust for the people of Ghana.

Under the customary system, there are different levels of ownership rights, the fullest level being the allodial title, referring to land which is vested in the whole community and is commonly referred to as stool lands or skin lands. The second type of ownership recognized under Ghanaian customary law is a usufructuary title; a concurrent and lesser title that individuals or families may hold on stool land, which cannot be divested without the consent of the usufruct owner.
The third level of customary ownership is pledged or rented land, reflected in the common share-cropping tenancy agreements of Abunu and Abusa. According to these arrangements, land is cleared, rehabilitated and/or cultivated by the tenant

farmer and then the land or the crop is shared between the tenant and the landowner.

Though the policy framework is highly conducive to REDD+, there are four main challenges with respect to the legal and regulatory framework for REDD+ that must be addressed for REDD+ to work.

1. The first is that Ghana's policies and laws do not specify who is eligible to receive incentives or benefits for reducing deforestation, reducing forest degradation, enhancing carbon stocks, practicing sustainable forest management or engaging in forest conservation. Furthermore, the laws of Ghana are silent on carbon or emission reductions and does not articulate the nature of such rights. Only the government can legally sign an ERPA, and in practical terms this is the only reasonable arrangement, however, clarifying this will be important as rights in REDD+ can only be inferred from the existing laws regulating rights in land, forests and natural resources.
   - The NRS has commissioned a working paper on Carbon Rights to be presented to Parliament to inform new legislation. The MESTI is also addressing carbon rights as part of the National Climate Change Policy.

2. The second is the existence of gaps or contradictions in the legal framework that will need to be addressed in order to strength REDD+ and give legiti macy to key REDD+ mechanisms. For example, the CREMA mechanism still lacks legislative backing, despite being before Parliament for an extended period of time. The Economic Plants Protection Act of 1979, which abolished the granting of timber felling rights in farms having trees, such as cocoa, with economic value, has never been implemented and appears to be in contradiction to the Timber Resources Management Act.

   - The MLNR, in collaboration with the FC, has presented a Wildlife Bill to Parliament which should provide the needed legislative backing to the CREMA mechanism. In the absence of a clear decision on carbon rights, CREMAs offer the best pathway forward due to the devolution of natural resource management rights to the associated communi ties.
   - The revised Forest and Wildlife Policy 2012 clearly indicate government's commitment to acknowledge farmers as owners of trees

[8] *Yinka A. 2011. Forest Carbon in Ghana: Spotlight on Community Resource Management Areas. Katoomba's Group Legal Initiative Country Study Series. Forest Trends. Washington, DC.*

on their farms. Any future legislation which emanate from this policy will therefore give clarity to the issue of timber and carbon rights for trees in farming systems.

3. The third and perhaps the most important, is the lack of rights given to the majority of land users (the 'people' recognized under the 1992 Constitution),who are the main decision makers in the landscape with respect to the fate of trees and forests, creating in many instances perverse incentives that drive deforestation and degradation. At its core, the problem with the existing benefit-sharing arrangement is that tree tenure and timber benefit sharing regimes have been structured to only recognize the rights of the Forestry Commission, the stools, the district assemblies, the traditional authorities, and office of the administrator of stool land (OASL) without recognizing the rights and key roles of the land users and de facto managers of the trees. Tree tenure reforms and an adapted benefit sharing arrangement that is supportive of REDD+ will be crucial.

- The FIP is reviewing tree tenure, with a view to recommend legislative changes with support from the NREG Technical Assistance (TA).
- In addition, the revised forest and wildlife policy of 2012 stipulates as part of its policy strategies (4.1.1) that the necessary legislation and regulations should be enacted to enable communities and individuals benefit from trees on their farms and fallow lands.

4. The fourth challenge is the weak or absent enforcement of existing laws. For example, farmers are entitled to be consulted when concessions are granted on the lands where they farm, and they are legally entitled to compensation payments for damage incurred when timber is harvested, but this rarely happens or the payment is minimal. Illegal chainsaw logging has also increased, further degrading farmers' rights and degrading the forest reserves. Additionally, compensation figures have not been reviewed since 1979, despite inflation and the devaluation of the cedi. Because farmers are often not well organized and have few channels for expressing their grievances, many farmers simply accept these injustices and/or prefer to destroy trees on their farms to prevent unwanted damage and harassment.

3.3 Social & Environmental Safeguards

REDD+ safeguards are country-level approaches developed to ensure that social and environmental risks are minimized and benefits enhanced in the implementation of REDD+.As a participant country of the FCPF and a pipeline programme of the Carbon Fund, Ghana must comply with the World Bank's social and environmental safeguards requirements, as included in UNFCCC guidance related to REDD+. The country must provide information on how these safeguards are addressed and respected, through the application of an appropriate grievance redress mechanism. Ghana's REDD+ safeguards development process has been guided by the seven REDD+ safeguard principles agreed upon by participants at the COP16 (Cancun Agreement) . Furthermore, Ghana has adopted a safeguards approach that prioritizes the need for an accountable and participatory process with the effective participation of women and local communities.

Both government and non-governmental institutions and stakeholders will play a critical role in ensuring the fair and effective design of Ghana's REDD+ safeguard approach, including the implementation of policies, laws and regulations and the development of a Safeguard Information System (SIS). The strategy is therefore to engage formal and informal institutions, using acceptable processes and procedures in order to design and implement effective and comprehensive approaches to safeguards. Processes and procedures would include consultation, strategic assessments, information dissemination, data collection and communication. Ghana's SIS would also provide and ensure strict adherence to Free Prior and Informed Consent (FPIC) and the design of an appropriate Feedback and Grievance Redress Mechanism (FGRM).

3.3.1 Safeguard Information System

A SIS provides a systematic approach for collecting and providing information on how REDD+ safeguards are being addressed and respected throughout REDD+ implementation. Out of the SIS a summary of safeguards information must be submitted periodically in national communications to the UNFCCC. Components of SIS include the following:

- Indicators, Principles and criteria: These help determine whether a particular policy, law or regulation is being effectively implemented. The indicators provide the parameters to determine what information needs to be collected.
- Methodologies for collection of information: These outline the types of information to be collected for each indicator, and how the information collection should be carried out (e.g. sample size, frequency, etc.).

As previously discussed in Section 2, Ghana's SIS will be part of the REDD+ information system and database and would be an integral component of a country approach to safeguards (CAS).

3.3.2 Mainstreaming Gender

Gender considerations are essential to REDD+ as they have the potential to enhance the effectiveness and efficiency of conservation, poverty reduction and climate mitigation efforts. It is therefore imperative to mainstream gender considerations into REDD+ implementation. The principal driving principle is to ensure that both men and women are fully recognized as REDD+ stakeholders and that they have equal access, use and control of forest resources as well as equitable share of associated benefits. There is therefore a need to develop their capacities to fully and effectively participate, contribute and benefit from REDD+ initiatives.

It is important to ensure that measures are put in place to minimize and/or address negative impacts of activities on the disadvantaged/vulnerable groups in society, particularly women. The main strategic option is to ensure that all deliberations, programme designs and implementation clearly take into consideration the different roles men and woman have to play in reducing deforestation and degradation as well as how specific interventions will impact on them differently. Strategies should be put in place to identify and address gender inequalities that exist in the context of REDD+ through targeted programmes that enhance positive impacts on livelihoods and socio-economic wellbeing whilst reducing risk of negative gender impact and lessen the negative impact on particular gender groups. In particular, women's representation in key REDD+ institutions and programmes should be prioritized due to their historical alienation from decision making processes.

Ghana's commitment to ensuring a gender-sensitive REDD+ process has received recognition and applause at the international level, being one of the first FCPF countries to establish a gender sub-working group as part of its National REDD+ architecture, and also develop a road map/ action plan for streamlining gender mainstreaming efforts. The National REDD+ Gender Sub-Working group consists of representatives from various MDAs, private sector, CSOs and traditional authorities. Their role is to spearhead gender advocacy and ensure that gender is fully mainstreamed into Ghana's REDD+ process.

[9]UNFCCC (2010) Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010 http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf

3.3.3 Feedback and Grievance Redress Mechanism (FGRM)

FGRMs are organizational systems and resources established to receive and address concerns about the impact of policies, programs and operations on external stakeholders. REDD+ countries are expected to establish or strengthen FGRMs based on an assessment of potential risks to forest-dependent communities and other stakeholders from REDD+ programs and activities.

Conflicts within the forestry sector in Ghana have typically emanated from timber companies, farmers, illegal chainsaw operators, community leadership (including chiefs and traditional authority), FC staff, community pressure groups, District Assemblies, illegal mining or 'galamsey' operators and to some extent community-based organizations (CBOs).

Work on an FGRM has found that REDD+ implementation in Ghana could experience conflicts as a result of the following :

- Land clearing for agriculture- which can involve encroachment into defined REDD+ activity areas.
- Tenure conflicts and/or boundary issues.
- Illegal logging and mining operations.
- Economic concessions- including granting of timber use rights in project area.
- Extra-community conflicts- between community institutions and local government.
- Intra-community conflicts- between community members and/or land owners

Ghana's REDD+ has adapted the joint UN-REDD/FCPF FGRM process to address REDD+ conflict at the community, district and national levels. Figure 13 shows the typical steps in a grievance resolution mechanism, as adapted by Ghana. Furthermore, Ghana already has a Dispute Resolution Mechanism (DRM) in place, although the original focus of this mechanism was not meant to address environmental or natural resource management issues. Ghana therefore aims to adapt and enhance the framework and mandate of the DRM for its application under REDD+, as a FGRM. The following steps reflect Ghana's strategy to implement a REDD+ FGRM.

- Conduct sector-wide stakeholder consultation on the proposed DRM mechanisms.
- Pilot and scale up the agreed DRM mechanism.
- Propose the review and amendment of the Alternative Dispute Resolution (ADR) Act 2010 to allow for environmental or forestry issues to be settled through the Act.

- Set up FGRM structures at community, district and national levels.
- Build capacity of key actors and create widespread awareness of the established systems.

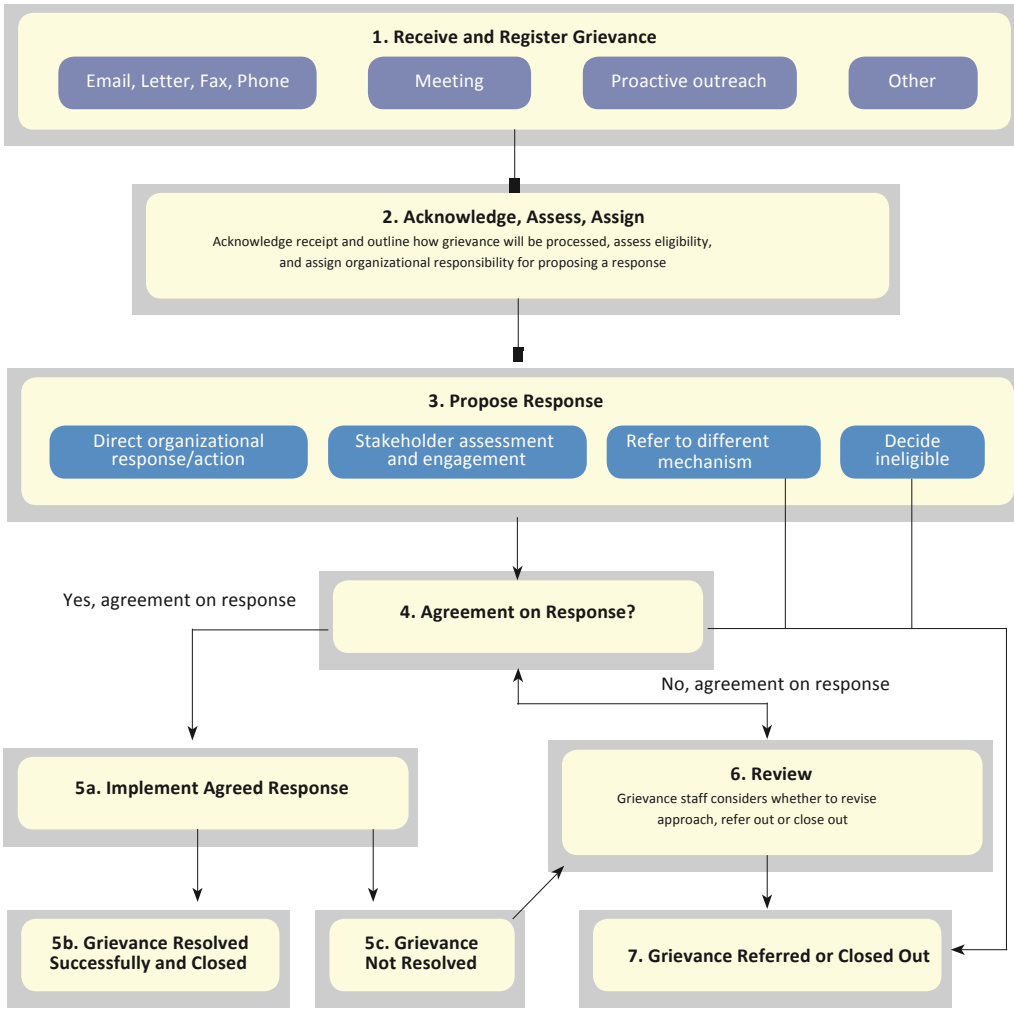


Figure 13: Steps in Ghana's FGRM

3.4 Institutionalizing multi-stakeholder dialogue process for REDD+

Finally, as REDD+ emerges, its form and content will bring many complicated issues that will require continuous stakeholder consultation, dialogue and consensus. To that end, REDD+ should leverage on the ongoing effort to institutionalize multi-stakeholder dialogue (MSD) in the forestry sector. It should build on initiatives by NGOs, private sector and other civil society organizations including the National Forestry Forum. The strategy in this respect would include leveraging funds and resources to support capacity building of stakeholders. Emerging issues related to carbon rights, benefit sharing and so on will all benefit from a strong and legitimate MSD platform.

There are three segments in institutionalizing multi-stakeholder dialogue in the REDD+ process - the process of engagement, the type of engagement and the stakeholders to be engaged.

a. The process of engagement

This involves four overlapping and continuous stages:

1. Stakeholder identification where individuals, groups and institutions that have a stake in the REDD+ process are identified based on their interest, influence and importance. At this stage the number of each stakeholder group on the multi-stakeholder platform may be agreed upon and negotiated.

2. Preparatory Meeting involves defining the scope and context of the engagement with all stakeholders.
3. Engagement stage involves assessing and addressing the impact of the engagement including how the engagement will bring changes and how the changes will affect the stakeholders and finding solutions to negative impacts and strengthening positive impacts.
4. Action Planning, research, roles, responsibilities and compliance.

b. Types of engagement

This involves information sharing and capacity development, consultation and consensus building, policy and legislation discussions and monitoring. This can be done at any stage of ngagement process with all stakeholders. However, depending on the type of engagement, some stakeholders may be required to play a more active role than others. For instance during policy

and legislation discussions and or development all stakeholders will be engaged but government will play a lead role. Multi-stakeholder forums should be held at three levels- local, regional and national.

c. The stakeholders to be engaged

Stakeholders have been categorized into five:

1. Civil Society - farmers, communities, traditional authorities, NGOs
2. Private sector - investors, plantation developers, timber industry
3. Government - Forestry Commission, relevant ministries, metropolitan, municipal and district assemblies
4. Research and academia
5. Development partners

A Cross Section of Stakeholders during community consultation at Goaso

4. TRACKING REDD+

This section describes Ghana's REDD+ strategy for developing a full tracking system for monitoring, measuring, reporting and verifying emissions fluxes associated with REDD+ implementation. It also outlines the plan for housing relevant data associated with these activities in an information system database. Measurements of safeguards-related issues have been separately accounted for in section 3.3 of this document.

One of the main differences between traditional development project models and REDD+ is that the incentives or financing that come with REDD+ are performance based. Therefore, a country's capacity to track and report on REDD+ actions and results, in terms of reducing CO2 emissions from deforestation and forest degradation, is a prerequisite for receiving payments.

The three main pillars to tracking and reporting on emission reductions are:

1. Being able to monitor, measure, report and verify emission re ductions—MMRV;
2. Establishment of a reference emissions level (baseline) against which progress will be compared—REL
3. Development of an information system and registry that serves as a repository for data and information about key indicators and metrics, facilitates outputs and clear reporting, and communicates with international registries around the transfer/ sale of REDD+ emission reductions (or carbon credits)—Information System & Registry.

4.1 MMRV System

An MMRV system is a combined set of methodologies and standards used to collect and translate primary data into measurable and reportable emissions estimates that are then verified by an external entity, like the UNFCCC. In many ways, this system is the backbone of a performance-based mechanism for REDD+; the purpose being to track changes in forest areas in a way that is transparent, consistent, and accurate, and that reduces uncertainties so that we know if we are having positive, negative or neutral effects or impacts on the forest ecosystems over time.

In developing and establishing its REDD+ MMRV system and methodologies, Ghana will follow and comply with the IPCC Guidelines for National GHG Inventories (2006), IPCC Good Practice Guidance for LULUCF, as well as the FCPF Carbon Fund

Methodological Framework. By taking into account the IPCC and FCPF guidance for estimating emissions reductions attributable to REDD+ implementation, Ghana will present a harmonized and methodologically sound approach for REDD+ carbon accounting.

4.1.1 Forest Definition

Monitoring forests for REDD+ necessitates a clear forest definition. Ghana's forest definition is any piece of land with a minimum area of 1 hectare, with a minimum canopy cover of 15% and with trees that have the potential to reach or have reached a minimum height of 5 metres at maturity in situ. This definition is based on thresholds set by the IPCC for these structural parameters and the Marrakesh Accord.
For the purpose of clarity, forest plantations are included under Ghana's forest definition. However, in compliance with the Marakesh Accord, the replacement of intact natural forests by forest plantations is not permissible under REDD+.

Cocoa trees, rubber trees, oil palm plantations, and other tree-crop plantation trees (mango, citrus, cashew, etc.) are not considered as forest under the definition. This is because they represent the "business-as-usual" deforestation and degradation scenario and cannot be considered as being "additional", which is a prerequisite for REDD+. However, land use systems that integrate tree crops with a significant shade canopy of forest trees can qualify as a forest if the shade trees meet the forest definition; an example being a high shade cocoa system.

Ghana's forest definition was agreed upon after extensive consultations with a wide range of stakeholders and technical experts, and the agreed parameters seek to ensure both the applicability and viability of REDD+ across the various ecological zones in the country, including vital landscapes like savannah woodlands and gallery forests within the savanna woodland landscapes.

However, given the mosaic nature of Ghana's landscapes, the adoption of these parameters does present critical methodological issues for Ghana's forest monitoring system. Numerous remote sensing projects and assessments have clearly demonstrated that tree crops such as cocoa plantations, over-aged oil palm plantations, and rubber plantations may be interpreted as forest based on satellite images and remote sensing technology. Therefore, a robust methodological approach that integrates ground based inventories with cutting edge remote sensing technologies will be required to enable Ghana to distinguish between its forests and non-forest tree crops.

4.1.2 Forest Monitoring System

Prior to Ghana's engagement in REDD+, the national method for tracking changes in forests and forest cover was based upon ground inventories that required tremendous manpower and financial resources, and focused mainly on timber volume estimation. As a result, the last ground-based national forest inventory occurred in 2001.In redesigning the National Forest Monitoring Systems (NFMS), Ghana has made good progress in transitioning from ground based forest inventories to remote sensing based approaches that are combined with ground-based sampling for estimating changes in forest carbon stocks.

Ghana worked with Indufor Oy on the initial conceptualization and development of its forest monitoring system, as well as the elements of measurement, reporting and verification. Substantial efforts were also made during the readiness process to build on complementary projects, such as the 2012 Forest Preservation Programme (FPP). The FPP represented a significant step in the generation of useful data for the estimation of emissions/ removals from the forestry sector and/ or associated land use changes utilizing remote sensing based wall to wall classification over three epochs (1990, 2000, 2010).

Following the first stage of work to redesign the NFMS, Ghana has developed 12 Standard Operating Procedures (SOPs) that provide the overarching guidance for the generation of activity data and emission factors for key pools and gases in line with the IPCC guidelines for GHG inventories.

In completing Ghana's REDD+ readiness process, further work is underway with Winrock International to develop a full-fledged forest monitoring operating system that will build on the database system developed under the FPP and integrate the principles, equations and approaches embedded in the SOPs with a well-defined institutional arrangement for data collection, entry, access and updates, which will be backed by the requisite institutional and legal regulatory frameworks.

In terms of implementation of forest monitoring, Ghana intends to use an approach that combines remote sensing technology with ground-based sampling on appropriate stratification and sampling methodologies. As already noted, distinguishing between tree crops and forests will be crucial to accurately map the extent of Ghana's forests and associated land use change. With respect to remote sensing, a final decision still needs to be made on the acquisition period, acquisition frequency, spatial resolution and spectral bands. Ghana will aim to monitor all five carbon pools—above ground living biomass, below ground living biomass, deadwood, litter, and soil organic matter.

Ghana will start with a sub-national monitoring and reporting approach as an interim measure to build upon existing and emerging systems so as to allow for learning and improvements before implementing at the national scale.

Subject to the availability of resources, Ghana also intends to undertake a comprehensive national forest inventory every five years. This period should be adequate to detect land use changes and conversions and their associated carbon stock fluxes on a scale that will justify the commitment of technical and financial resources. Sampling based approaches will be adopted for data that may be required for the intervening years. In addition, the SOPs will be reviewed every two years and the review process will be completed 12 months prior to the submission of Ghana's BUR so that any changes made can be incorporated in the BUR.

4.1.3 Measurement

The purpose of a measurement system is to convert information from the forest monitoring system into the emissions reductions and removals that are reported. In doing so, Ghana will follow IPCC Good Practice Guidance for Land Use and Land Use Change. Ghana has opted for a Tier 2 measurement approach. This approach relies upon generic algometric equations for tree biomass, but uses data collected during the national forest inventory.

One challenge is that Ghana lacks historic inventory data that can be used for estimating emissions reductions and removals. Though there have been multiple efforts, as described below, accessing historical data has been a challenge. This is because prior to the emergence of REDD+ readiness in Ghana, forest inventories were primarily focused on the estimation of timber volumes to guide the allocation of timber yields and sustainable harvesting levels for the various forest reserves, and not biomass. Misclassification of land use types has also hampered land use change assessments and associated biomass estimates.

Ghana's strategy going forward is to work with Winrock International to complete its development of a measurement system for REDD+. However, a brief history of REDD+ forest and biomass measurement initiatives is described below.

- In 2001/ 2002, the RMSC with support from the World Bank and the United Kingdom's Department for International Development (DFID) undertook a multi-resource inventory (MRI) of Ghana's HFZ. The objectives of the MRI were to determine species distribution and to estimate stocking levels of timber

resources at the reserve, district, regional, and ecological zone levels in the HFZ. In accordance with growing acceptance that the value of forests goes beyond its timber resources, the MRI included an assessment of important non-wood forest products (NWFPs) and an indication of faunal populations. Although the MRI represented an improvement on previous inventories, it nonetheless provided inadequate data for measuring emissions from the forestry sector.

- The development of a biomass map for Ghana covering the 2008-2009 time period represented the first major attempt at a national scale to estimate forest carbon stocks. This project was executed through a collaborative effort between the FC, Forest Trends, NCRC, University of Oxford, and NASA. The biomass map enabled Ghana to establish a good estimate of total above ground national carbon stocks (1.7 Gt). It showed distinct variation in the distribution of above ground biomass between major vegetation and land cover types. The northern and coastal savannah areas showed the lowest biomass stocks (1 to 75 Mg/ha ± 1 to 10), whereas the tropical high forest zone had the highest biomass; ranging from 100 to 400 Mg/ha (± 60 to 80 Mg/ha). The initiative has also enhanced national capacity to estimate carbon stocks and associated uncertainty levels at national and sub-national scales. One of the key limitations of the project however, was the very high spatial resolution utilized in the biomass estimation (250 meter resolution).

- In 2013, the FC completed the FPP with financial assistance from the Japanese Government. The main objectives of the FPP included the use of standard practices and principles such as the IPCC's Good Practice Guidance for the creation of a complete and seamless land use history and forest inventory at the national level, implementation of a comprehensive forest resource change assessment for historical period 1990 - 2010 and the development of MRV protocols for a set of sub-national REDD demonstration activities that meet the recommended principles and procedures.

  The project indicated that forest cover in Ghana had increased by about 1.2% from 1990 to 2010. However, the increase in forest area

is attributable to the expansion of open forest whereas closed forests decreased over the period. It also estimated that forest degradation and deforestation resulted in a loss of above-ground carbon stock of about 20 – 34 percent. Unfortunately, some key limitations were identified with the analytical work and consequent findings. The most significant flaw was the land use classification, which misclassified cocoa and other tree crops as forests.

4.1.4 Reporting and Verification

In maintaining consistency with key COP decisions (Decision 1/CP.16 and Decision 2/CP.17) and with Ghana's position as a non-annex I country, the national-level data and information generated above will be provided through Ghana's biennial update reports (BUR), for submission to the UNFCCC Secretariat. In order to receive results-based payments, the Warsaw Framework also stipulates that data on REDD+ activities, including its emissions, removals, and Forest Reference Level (FREL) must be verified by a team of technical experts that should include two LULUCF experts, one each from a developing country and a developed country. The technical experts will verify the accuracy of the FREL results, the consistency in the methodologies, definitions, comprehensiveness and also the consistency in the information provided in the technical annex with the UNFCCC guidelines.

Reporting from sub-national emission reductions programmes will add up to the national level reporting, but will also be submitted to the Carbon Fund per Ghana's anticipated ERPA for the Cocoa Forest Mosaic Landscape.

Other alternative REDD+ accounting procedures include the Verified Carbon Standard (VCS), the Climate, Community and Biodiversity Alliance (CCBA) and the American Carbon Registry (ACR) if smaller scale projects that fall outside of established jurisdictions opt to target voluntary markets and voluntary standards and methodologies, in agreement with the government, as represented by the NRS. Ghana submitted its first BUR in 2015. The BUR had no technical annex since Ghana is yet to develop a more holistic FREL that includes all the targeted and feasible REDD+ elements (deforestation, degradation and carbon stocks enhancement). Ghana is aiming for 2017 for presentation of the FREL technical annex to the BUR. Ghana will however, have an initial opportunity to present its FREL when submitting the ER programme document to the CF in mid-2016.

Verification is a collection of activities or procedures to establish the reliability and accuracy of the GHG inventory (IPCC 2003). Verification will be performed

internally in Ghana at the sub-national and national levels, as appropriate, by the NRS and the EPA (responsible for the GHG inventory). External verification, however, will be performed by an independent third party organization. Verification therefore may involve the comparison of inventory estimates against estimates that are independently derived, or the examination of data quality and upscaling procedures. The 2003 Good Practice Guidelines for Land Use, Land-Use Change and Forestry (GPG-LULUCF) recommends five approaches that can be used to perform verification of the inventory estimates (IPCC 2003):

- Comparison against other information, such as independent inventories or international datasets
- Application of higher tier methods
- Direct measurement of GHG emissions and removals
- Remote sensing
- Application of a process model.

4.2 Reference Level

Reference levels (also called baselines or reference emission levels) are critical for the implementation of REDD+ because they provide the baseline against which future REDD+ performances can be measured. According to the UNFCCC definition from COP 17, a reference level is the amount of forest-based emissions—expressed in tones of CO2 equivalent per year—that are the benchmarks for assessing a country's performance in implementing REDD+.

There are five main elements or decisions in developing a reference level: the scope, forest classification, the scale, the time frame and the carbon pools.

The scope of Ghana reference level will cover deforestation, degradation and carbon stock enhancement, resulting in what is termed a Forest Reference Level (FRL).

Ghana's forest definition must be further delineated to distinguish different classes of forests, which relate to different carbon stocks. With Ghana's ER-PIN, two forest classes were articulated; closed forest and open forest, with carbon stock values of 155 tC/ha (568 tCO2e) and 87 tC/ha (319 tCO2e), respectively. The non-forest land use was classified as cropland, with 15 tC/ha (54 tCO2e). It is expected that this classification and allocation of carbon stocks will change as Ghana continues to work to develop its FREL.

In terms of scale, Ghana has opted to follow the decision of the COP which states that Parties may develop a sub-national forest reference emission level as an interim measure while transitioning to a national forest reference emission level. As such, Ghana will initially develop a FREL for the ERP for the Cocoa Forest Mosaic Landscape, and then based on this experience, scale up to a national FREL.

Ghana will likely opt for a ten year historical time frame, in order to enable the development of a historical baseline of emissions, and then based on this historical rate, develop a reference level going forward that will span approximately twenty years.

As previously mentioned, Ghana anticipates that the reference level will reflect all five carbon pools.

Despite the positive progress made, there are still some major methodological issues and gaps which require serious attention. For example, there are significant challenges to developing a FREL that includes forest degradation and CSE before mid-2016. There are also methodological issues related to land use classification, such as the lack of well tested approaches for spatially distinguishing between natural forests, tree crops and forest plantations.

4.3 REDD+ Information System & Registry

Ghana is moving forward to develop a REDD+ information system that will encompass data and information produced by the MMRV system, serve as the SIS and allow for the collection of additional information to be able to show non-carbon benefits. It could also be used to demonstrate compliance with a possible national climate-smart cocoa standard and to house information that will trigger benefit sharing or other important indicators.

To become operational, consultants will be hired to help generate a system for collecting data and information, a platform for storing data, protocols for analyzing and producing outputs or results and a web-based interface for making information open and available to the public. This will be a nationally operated system that can monitor and produce outputs from sub-national programmes (jurisdictions) as well as the national level.

Ghana's REDD+ information system should be compatible with the EPA Registry which is being set up to facilitate National GHG Accounting across all sectors.

The EPA is also developing a climate change support and impact monitoring disclosure system (CCSI-MDS) database on mitigation and adaptation, under the NREG-TA.

These systems would be adapted for REDD+ and subsequently be upgraded and improved to cover a broader range of REDD+ issues.

Ghana will not develop its own REDD+ Registry at this point in time as it will be unnecessary in the short to medium term of REDD+ implementation. For the first five years, it is anticipated that Ghana will only be reporting to the Carbon Fund, and these transactions could take place through an FCPF or Carbon Fund Registry. Ghana could use the Verified Carbon Standard Registry if needed.

BIBLIOGRAPHY

Agyei,K. and Asare, R.A. 2015. Ghana REDDX: Tracking Expenditure & Finance Flows for 2009-2014. Forest Trends, Washington, D.C.

Anim-Kwapong, G.J. and Frimpong, E.B. 2005. Vulnerability of Agriculture to Climate Change – Impact of Climate Change on Cocoa Production. Cocoa Research Institute of Ghana. New TafoAkim.

Emmanuel Marfo, Yaw Osafo and Nana Darko Cobbina, 2014. Development of Dispute Resolution Mechanism for REDD+ in Ghana. Forestry Commission of Ghana.

FAO, 2010. Global Forest Resources Assessment. Main report. Available at: http://www.fao.org/docrep/013/i1757e/i1757e.pdf

GoG, 2010. Medium Term National Development Policy Framework: Ghana Share Growth Development Agenda (GSGDA), 2010-2013. National Development Planning Commission (NDPC), Policy Framework Volume I.

http://www.mofep.gov.gh/sites/default/files/docs/mdbs/2010/final_draft_mtdpf.pdf

IPCC, 2013. The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC).

Owusu, J.G.K, Abeney, E.A and Frimpong, E.A .1999. Workshop for media personnel on forestry and wildlife reporting.

UNFCCC, 2010. Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010 http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf

Yinka A. 2011. Forest Carbon in Ghana: Spotlight on Community Resource Management Areas. Katoomba's Group Legal Initiative Country Study Series. Forest Trends. Washington, DC.

ANNEX

Annex 1: Relevant national policies, Strategies and development priorities and link to current National REDD+ Strategy

An Agenda for Transformation: The Coordinated Programme of Economic and Social Development Policies (2014-2020)

The country's socio-economic development prospects are intrinsically linked to its natural resource endowments and the environment. The over-exploitation of some of Ghana's natural resources to meet legitimate socio-economic needs has led to irreparable damage to the environment and the natural resources, with the potential of compromising the ability of the ecosystems to support goods and services that underpin long-term socio-economic development and ultimately human welfare.

The main challenges facing the effort at reversing the natural resource degradation and enhancing environmental governance are:

a. Weak institutional capacity for environmental management,
b. Poor coordination among the key government institutions responsible for the sector; and
c. The inability to sustain implementation of interventions related to re forestation and environmental management

Medium-term policy interventions for effective natural resource man agement will cover

e. Biodiversity and protected areas management;
e. Land management and restoration of degraded forests;
f. Wetlands and water resources management;
g. Community participation in natural resources management; and
h. Climate variability and change.

The first step towards achieving improved natural resources management and environmental governance is to ensure effective environmental governance. Strict enforcement of existing laws, regulations, and administrative measures will be given priority attention.

In this regards, government interventions will include the following:

a. Review existing policies, legislation and investment agreements to en force compliance with relevant regulations;
b. Pursue reclamation and reforestation in degraded areas; and

c. Promote the adoption of the principles of green economy in national development planning.
Government's policy objective is aimed at reversing forest and land degradation as well as promoting efficient land use and management systems country-wide. Strategies to be adopted include implementing education and enforcement programmes to reduce bush fires and for est degradation.

Ghana's Shared Growth and Development Agenda II (GSGDA) and attainment of the Millennium Development Goals (MDGs) (2014-2017)

The policy has three distinct pillars: private sector competitiveness, human resource development, and good governance with civic responsibility. In effect the medium term development plan will promote reforestation programmemes, enforce bye-laws on illegal lumbering and encourage the establishment of community woodlots. Other strategies include reclamation and afforestation in degraded areas; enhance policy and regulatory framework and coordination among key government agencies and other stakeholders; and develop policy and legal framework for an integrated national geo-spatial data infrastructure1,2.
Implicit in the narratives of the growth agenda is the need for the forestry sector to:

- Achieve sustainable forest management and reduce deforestation and forest degradation so as to develop a stable timber resource for Ghana's future.
- Increase value addition in the timber processing industry to create jobs with manufacturing skills.
- Increase rural employment and livelihoods through local management of off-reserve forests, through mechanisms such as dedicated forests or Community Resource Management Areas (CREMAs).
- Support investments in plantation timber, tertiary processing, eco-tourism, and wildlife facilities.
- Fully capture economic and financial rents to ensure an effective regulator and a broader tax base.

National Climate Change Policy (2012)

National Climate Change Policy (NCCP) in 2012 with the vision of ensuring a climate resilient and climate compatible economy while achieving sustainable development through equitable low carbon economic growth2. Development of planning guidelines by the NDPC for MMDAs on how to mainstream climate change adaptation and mitigation into development plans is the result of the climate change policy.

Ghana National Climate Change Policy Master Plan 2015-2020, outlined measures towards increasing carbon sinks into two categories.

1. ***Minimize loss of carbon sinks***
   - ◊ Strengthen institutional and technical capacity in natural re source management.
   - ◊ Reduce the pressure on forests and mangroves for wood fuels by improving the efficiency of production, harvesting, conver sion and use of wood fuels.
   - ◊ Encourage diversification from natural resource based activities into non-farm activities such as trading.

2. ***Enhance carbon stocks***
   - ◊ Improve legislatives to effectively address land use rights and land tenure systems.
   - ◊ Promote, through increased funding and opportunities, plantation development and management in off-reserve areas for private and public-private partnerships.
   - ◊ Rehabilitate degraded natural ecosystems through enrichment planting in degraded forest reserves and off-re serve areas.
   - ◊ Support initiatives for the enhancement of carbon sinks through afforestation/reforestation measures, including FLEGT, the Non Legally Binding Instrument on forests NLBI), REDD+ and the Clean Development Mecha nism (CDM).
   - ◊ Support agro-forestry programmemes initiated to conserve trees in association with crops.
   - ◊ Promote the establishment and consolidation of bio-reserves and buffers of forest.
   - ◊ Reinforce local community involvement in resource management. Promote, through increased funding and opportunities, plantation development and management in off-reserve areas for private and public-private partnerships.
   - ◊ Rehabilitate degraded natural ecosystems through enrichment planting in degraded forest reserves and off-re serve areas.
   - ◊ Support initiatives for the enhancement of carbon sinks through afforestation/reforestation measures, including FLEGT, the Non Legally Binding Instrument on forests (NLBI), REDD+ and the Clean Development Mechanism (CDM).

- ◊ Support agro-forestry programmemes initiated to conserve trees in association with crops.
- ◊ Promote the establishment and consolidation of bio-reserves and buffers of forest.
- ◊ Reinforce local community involvement in resource management.

National Climate Change Policy Action Programme for Implementation: 2015–2020

The purpose of the national climate change master plan is to put in place robust measures needed to address the challenges posed by climate change and climate vulnerability. Policy Focus Area 4 to design and implement intervention that increase carbon sinks, and specific programmes to be implemented include the following:

A. Improving Governance, Capacity and Regulatory Structures: Objective is to ensure effective natural resources governance through improved policy, legislation, capacity-building and increased participation of stakeholders in decision-making, including traditional leaders. Governance issues such as weak institutional arrangements, uncertain land use planning and management, tree and land tenure arrangements, weak enforcement of regulations and the challenges of implementation, and the lack of a clear benefit-sharing mechanism have contributed greatly to the decline in particular of off-reserve timber stock.

The proposed programme therefore seeks to promote a new governance approach which integrates transparency, equity and participation of stakeholders at all levels of natural resources planning and management. Action to be implemented include:

- Review and strengthen legislation to effectively address land use rights, carbon rights and tenure systems, and equitable benefit-sharing mechanisms.
- Support existing forest and natural resource governance initiatives and reforms such as the Forest Law Enforcement, Governance and Trade (FLEGT) initiative and the multi-donor Natural Resources and Environmental Governance Programme.

B. Securing the Integrity of Forest and other Natural Ecosystems: Objective is to improve sustainable management practices to secure continuity of natural ecosystems and their functions. The Government would have to monitor and manage issues on illegal logging and the

challenges of the acquisition of permits by small-scale timber firms. This will ensure the control of illegal logging and chainsaw lumbering operations within Timber Utilization Contract (TUC) areas. Actions include:

- Improve and sustain protected area and bio-reserve management and that of traditional protected areas (for example, CREMAs and Sacred Groves) for biodiversity conservation.
- Enhance sustainable management and monitoring of forests, within reserves and in off-reserve areas, and other natural ecosystems.

C. Sustainable Wood-based Fuel Production and Development for Domestic Energy Supply: Objective is to improve efficiency of wood fuel production and ensure development of alternative biofuels for sustainable energy supply in Ghana. The high demand coupled with unsustainable production practices, conversion and end-use inefficiencies and waste will put the country's forest and woodland resources, which supply the bulk of wood fuel, under intense pressure. Action include:

- Build capacity of fuel-wood-producing communities, NGOs, CBOs, women's groups and other identifiable groups to establish and effectively manage wood fuel plantations (including bamboo).

D. Plantation Development (Afforestation, Reforestation and Forest Restoration)

Objective is to harness the potential of planted forests for sustainable timber supply and climate change mitigation, to contribute to low carbon development and green growth. There is the acceptance that plantation development is an effective management tool in restoring degraded areas, and also provides an important mechanism for carbon sequestration. The new focus is therefore to harness the potential of plantations in harmonizing the long-term goal of meeting future demands for timber and to sequester carbon to mitigate climate change. Actions include:

- Promote, through increased incentive packages (e.g., policy, funding, and carbon credit schemes), opportunities for plantation development and management in off-reserve areas through private and public-private partnerships.
- Support the rehabilitation of degraded forest landscapes through enrichment planting and reforestation.

E. Conservation of Trees through Agroforestry and On-farm practices, and Greening of Urban Areas: Objective is to conserve and plant trees in farm and fallow lands for carbon stock enhancement and livelihood improvement. The importance of agroforestry systems as carbon sinks has recently been recognized as a sustainable land-use approach for integrating forest carbon sequestration into agricultural production systems. The policy strategy therefore is to encourage and support farmers and landowners to conserve trees on their farm and fallow lands to enhance carbon sinks and also provide a good base for income diversification. Action include:

- Support agroforestry programmes.
  Provide incentives to and strengthen extension services for farmers and landowners to conserve trees on their farm and allow lands for economic benefit and enhancement of carbon stocks

The 2012 Forest and Wildlife Policy (2012)

This is the parent sector policy aimed at the conservation and sustainable development of forest and wildlife resources for the maintenance of environmental stability and continuous flow of optimum benefits from the socio-cultural and economic goods and services to the present and future generations, whilst fulfilling Ghana's commitments under international agreements and conventions.

Specifically, the policy objectives to be pursued and which should drive the implementation and coordination of emerging interventions like VPA and REDD+ are:

1. To manage and enhance the ecological integrity of Ghana's forest, savannah, wetlands and other ecosystems for the preservation of vital soil and water resources, conservation of biological diversity, enhancing carbon stocks for sustainable production of domestic and commercial produce.

2. To promote the rehabilitation and restoration of degraded landscapes through plantations development and community forestry informed by appropriate land-use practices to enhance environmental quality and sustain the supply of raw materials for domestic and industrial consumption and for environmental protection.

3. To promote the development of viable forest and wildlife based industries and livelihoods, particularly in the value added processing of forest and wildlife resources that satisfy domestic and international demand for competitively priced quality products.

4. To promote and develop mechanisms for transparent governance, equity sharing and citizens' participation in forest and wildlife resource management.

5. To promote training, research and technology development that support sustainable forest management whilst promoting information uptake both by forestry institutions and the general public.

Draft Ghana Forest Plantation Strategy 2015-2040

The goal of this strategy is to achieve sustainable supply of planted forest goods and services to deliver a range of economic, social and environmental benefits. The purpose is to optimize the productivity of planted forests by identifying suitable tree species and improving their propagation, management, utilization and marketing.

Five strategic objectives crucial for success will be the focus of the strategy. The under-listed are key action to be pursued /implemented under two strategic objectives (1 and 5) to achieve the goal.

Strategic Objective 1:

(a) To establish and manage 500,000 ha of forest plantations and undertake enrichment planting of 100,000ha through the application of best practice principles, by year 2040.

(b) To undertake maintenance and rehabilitation of an estimated 235,000 ha of existing forest plantations through the application

Key actions to be implemented under this component include the following:

a. Create land banks for forest plantation development on and off reserve
b. Promote integration of trees into farming systems
c. Procure Improved Seeds of Selected Exotic and indigenous tree Species
d. Establish seed orchards (clonal and seedling) of improved cultivars of selected exotic and native timber tree species (500 ha)
e. Maintain and tend Seed Orchards (existing and new)/ Seed Production Areas
f. Develop protocols for mass production of selected genetically improved planting material Establish and operate a Biotechnology (Tissue Culture etc) Laboratory and other facilities
(Vegetative Propagation Center)
g. Establish and operate two (2) State-of-the-Art Central tree nurseries - 5 million seedlings capacity/ yr

h. Implement FC's MoP on wildfire management
i. Certification/licensing of forest plantation contractors and forest tree nurseries
j. Facilitate forest plantations management and chain of custody certification (FSC, PEFC, etc)
k. Undertake and maintain 100,000 ha of enrichment planting sites within under-stocked/convalescence forest reserves
l. Establish and maintain 50,000 ha of fuel wood (energy) plantations
m. Develop and maintain 400,000 ha of forest plantations for industrial, environmental and other uses
n. Liaise with relevant institutions (i.e. Minerals Commission, Water Resources Commission, VRA, BPA, EPA etc.) to rehabilitate mined sites and reforest degraded watersheds etc. (target of 50,000 ha).
o. Maintain an estimated 235,000 ha (160,000 ha public and 75,000 ha private) existing forest plantations
p. Undertake coppice management and/or replanting of harvested coupes
q. Facilitate the enactment of policy/legislation to support ownership by farmers of planted trees on farms

Strategic Objective 5:

a. To improve governance in the regulation and management of forest plantations.

With regards to good governance the strategy will pursue the following guiding principles:

a. Assurance of clear land and tree tenure
b. Assurance of consistent and clear enabling Government policies, laws and regulations to sustain investor confidence
c. Prompt and efficient law enforcement and conflict resolution – especially with regards to land ownership and lease disputes
d. Promotion of multi-stakeholder dialogue approach as a platform for decision-making and the provision of feedback from the stakeholders.
e. Distribution of benefits on an equitable basis to all relevant stakeholders

Key actions under this strategic objective would include:

a. Strengthen enforcement of forest laws and regulations
b. Ensure transparency in the implementation of the Ghana Forest Plantation Strategy by adopting collaborative M&E systems
c. Institute annual award scheme for exceptional performance in plantation development

Build structures and arrangements to facilitate equitable distribution of forest plantation benefits.

The National Land Policy (1999) with the associated Land Administration Project (Phase II).

The Land Policy of Ghana aims at the judicious use of the nation's land and all its natural resources by all sections of the Ghanaian society in support of various social and economic activities undertaken in accordance with sustainable resource management principles and in maintaining viable ecosystems. The policy outlines specific actions that are consistent with the Mission and Vision of the Forestry Commission and the goals of REDD+.

Under security of tenure and protection of land rights, it clearly states that decision-making with respect to disposal of land should take into consideration:

- The natural resources of the land;
- Conservation of land for future generation;
- Protection of land rights of the present generation; and
- Accountability to the subjects for whom the land is held in trust.

Under ensuring sustainable land use, the policy again outlines that all lands declared as forest reserves, strict nature reserves, national parks, wildlife sanctuaries and similar land categories constitute Ghana's permanent forest and wildlife estates, and are "fully protected" for ecosystem maintenance, biodiversity conservation and sustainable timber production. Fully protected land areas as well as timber and wildlife protected areas may be used for the purposes of education, research, recreation and tourism, provided that such uses are compatible with the conservation of the environment.

Ghana's Land policy highlights on the importance of conservation of forest which is an element of REDD+ and therefore is consistent with the objectives of REDD+.

National Environment Policy 2014

The National Environment Policy commits to the principle of optimum sustainable exploitation of the ecosystem resources. The main purpose of the policy is to help decision makers think about the national policy actions and programmes needed to achieve a balance between economic growth and environmental sustainability.

The policy recognizes serious environmental challenges including loss of biodiversity, land degradation, deforestation and desertification, wildfires, illegal mining, air and water pollution facing Ghana. It also recognizes the fact that some socio-cultural practices have contributed to amplifying these challenges.

Against this background, the aims of the National Environment Policy include:

- Improving the commitment to environmental objectives, policies and interventions;

- Creating an understanding of the nature and causes of environmental problems;
- Mainstreaming international relations into the national environmental agenda;
- Taking appropriate measures to protect sensitive ecosystems.

The policy commits the nation to salient operational principles including accountability in policy formulation and implementation, allocation of functions and coordination, capacity building as important pillars for driving sound environmental management and sustainability.

The National Wildfire Policy

Wildfire is a major driver of deforestation and forest degradation and needs to be tackled in any intervention. Ghana has a comprehensive National Wildfire Policy that outlines strategic actions to manage wild fire in forest areas. The Policy seeks to promote effective and efficient management of wildfires for the sustainable management of natural resources and maintenance of environmental quality to improve on the socio-economic well-being of the citizenry. The objectives of the Wildfire Management Policy include the following:

- To ensure effective and efficient prevention and control of wildfires, the
- Adoption of alternative resource management systems that will minimize the occurrence of Wildfires,
- Develop the necessary structures and systems which will ensure stake holder participation in wildfire management and,
- To promote user-focused research in wildfire management.

Actions that will help achieve these objectives will be pursued under REDD+ intervention.

Low Carbon Development Strategy

The LCDS is to support the implementation of the policy that will assess the most efficient and cost effective way of achieving a low carbon development path. This is in line with both the overall national and sector vision of ensuring a vibrant climate compliant economic development that ensures intra-generational and inter-generational equity for all. The mission of the Low Carbon Development Strategy (LCDS) is to provide a framework that will ensure climate-resilient, equitable, low-emission economic growth and development as well as providing opportunities for Sustainable Development (SD) benefits and poverty reduction in a cost efficient manner.

The overall objective of this strategy is to contribute to global climate change mitigation through the development of an economically efficient and comprehensive LCDS for Ghana together with a monitoring reporting and verification system and an action plan.

These actions and efforts towards climate change mitigation and adaptation is in line with Ghana's REDD+ goals and objectives.

Forest Law Enforcement, Governance and Trade (FLEGT).
Forest Law Enforcement, Governance and Trade (FLEGT) Initiative (as part of the Voluntary Partnership Agreement (VPA)), and the projects under Ghana's FIP all provide a strong set of complementary channels for addressing the major drivers of deforestation and degradation in the ERP landscape, and for moving forward in a performance-based and climate-smart manner.

The cornerstone of Forest Law Enforcement, Governance and Trade (FLEGT) policy is the Voluntary Partnership Agreement (VPA). The FLEGT VPA is a bilateral agreement between the European Union (EU) and wood exporting countries, which aims to improve forest governance and ensure that the wood imported into the EU has complied with the legal requirements of the partner country. Under these agreements EU supports partner countries to establish or develop exporting systems to verify the legality of their timber exports to the EU.

The objective of the VPA between Ghana and the EU is:

- To provide a legal framework and compliance monitoring system aimed at ensuring that all timber imports into the EU from Ghana have been legally acquired, harvested, transported and exported.

The VPA will help further Ghana's governance reforms of the forestry sector, contribute to sustainable forest management, provide conditions that encourage investment in forest restoration and thus improve the resource base, realise the full economic value of forests and ensure that the forest sector contributes to poverty alleviation.

Implementation

- Ghana has established a Legality Assurance System (LAS) to monitor, control and verify management and use of Ghana's forest resources to ensure that only legal products are produced, sold and exported from Ghana.
- As a major component of the LAS, a Wood Tracking System will incor porate a traceability control system which will monitor timber, starting in the forest and continuing through the entire production chain.
- A Joint Monitoring and Review Mechanism (JMRM) composed of representatives of Ghana and EU will be established to facilitate imple mentation and ensure dialogue on the VPA.
- The VPA also establishes the post of an Independent Monitor to ensure

that audits of the entire LAS system are undertaken by a third party.

The National Tree Crops Policy

The Tree Crops Policy was formulated to give orientation and guidance to the strategic actions necessary for the development of the tree crops sub-sector. Tree crops include coconut, cashew, cocoa, rubber, kola and Shea nut. These are well distributed throughout the four main agro-ecological zones namely, the forest, transitional, Northern savannah and coastal savannah.

The policy states the vision as "a competitive and sustainable tree crops sub-sector, with focus on value chain development and improved technologies to create job opportunities, ensure food security, enhance the environment and improve livelihoods."

Linked to the vision, the objectives are to:

- Support increased production and productivity;
- Promote investment and increase processing capacities;
- Improve marketing through value chain development
- Promote sustainable practices for environmental protection;
- Support research and development;
- Improve coordination and management of the policy.

The above objectives are consistent with the principles of climate-smart agriculture. The Tree Crops Policy enumerates a number of activities under each of the objectives to be pursued. For example, to enhance public extension delivery to increase the adoption of Good Agricultural Practices, the policy highlights the diffusion and adoption of improved technologies and practices. It also emphasizes the important role of FBOs in the value chain given the limited resources for extension services. The policy defines Good Agricultural Practices (GAP) as covering all aspects of production such as land clearing, production of seedlings, planting, spacing, weeding, pruning, harvesting, grading, and pest and disease control. GAP have to be facilitated by well-trained, adequately equipped and skilled extension officers, close to and readily available to service the farmers and FBOs.

Again, the policy aims to promote sustainable practices for environmental protection. This is to address both the negative environmental effects of Tree Crops cultivation, including, deforestation, loss of biodiversity, declining soil fertility and erosion, climate change, bush fire, and the positive effects such as carbon sequestration and soil conservation.

In order to achieve the above, the policy proposes to set-up a conservation and re-afforestation programme to among other things:

- Promote Agroforestry practices

- Promote biodiversity conservation
- Support private initiatives for environmental protection.

Overall, the approach to tree crops development resonates well with the efforts to address climate change impacts and take advantage of the opportunities. Concepts of value chain and community participation and private sector investment, are practical strategies to work with for the implementation of the policy. Actions have gone far in the development of the tree crops especially in terms of private sector participation.

Cashew plantation development is also an example of private investment in tree crops. In the past, there has been the implementation of tree crop programmes in partnerships with development partners and private sector organisations. Given the importance of tree crops in exports, these initiatives can only be strengthened and improved.

Ghana Cocoa Sector Development Strategy (CSDS) II, 2015

The focus of the CSDS II is on sustainability through economic empowerment of smallholder cocoa farmers. The vision is to create a modernized, resilient and competitive cocoa environment where all stakeholders strive toward a sustainable cocoa economy in which farmers and their communities can thrive.

Productivity enhancing interventions in the cocoa subsector will aim primarily at raising the current productivity levels from 450 kg/ha to average 1,000 kg/ha in the next ten years. Increased farm productivity will be crucial in the campaign to achieve economic, social, and environmental sustainability.

Adopting Climate-Smart Cocoa Production: There has been an increased attention to climate-smart agroforestry - i.e. combinations of cocoa trees and shade crops/trees that have both economic and environmental benefits, and are more resistant to climate change and climate variability. COCOBOD is currently engaged in a number of eco-certification programmes that promote climate-smart agroforestry systems through technical assistance and financial/economic incentives. COCOBOD will focus on three main pillars as follows:

- Increasing cocoa yields and incomes.
- Building resilience and adapting to climate change.
- Reducing greenhouse gas emissions through agro-forestry where farmers are encouraged to plant 16-18 economic trees per hectare.

Partnering Stakeholders and Scaling Up Initiative to Address Climate Change: Initial strategy if that COCOBOD will forge closer collaboration with development partners on programmes/projects to adopt environmentally sound production practices, and with a long term strategy will involve engaging with industry players towards a PPP collaboration.

Current sustainability programmes and projects will include, the following:
Emission Reduction Programme: Collaboration between FC, COCOBOD
Ghana Forest Investment programme (FIP). Ghana's FIP aims to

(i) Ensure the integrity, restoration, and sustainable management of forest reserves by introducing more inclusive management practices and benefit sharing models , financial incentives, and investments ;
(ii) Restore cover in off-reserve areas by securing tree tenure and benefits , forest plantations and landscape restoration , and rehabilitation of de graded forest land;
(iii) Increase trees and enhance carbon stocks in the farming systems by promoting sustainable cocoa and agriculture practices ; and
(iv) Develop viable alternative livelihoods for local communities by ad dressing a broad range of technical, financial and market incentives, to reduce pressure on existing forests.

Organic Cocoa Production: Organic cocoa production is a relevant contribution to Ghana's pathway towards a sustainable cocoa sector. In order to realize its market potential and to diversify the country's production, COCOBOD will:

- Support organic production through its extension services in the same manner as conventional production;
- Encourage certification as required by the market;
- Approve other LBC's interested in organising farmers to produce organic (certified) cocoa and purchase same from the farmers;
- Acknowledging that minimum volumes of organic cocoa beans for maintaining LBC licence maybe difficult to achieve;
- Assess the possibility of designating appropriate areas with high environment/ecological soundness for organic cocoa production.

National Climate Smart Agriculture and Food Security Action Plan (2016-2020)

Action Plan therefore is an effort to translate to the ground level the broad national goals and objectives in climate-smart agriculture.
Development and promotion of climate resilient cropping system.

Action Plan specifically aims to:

- Develop climate-resilient agriculture and food systems for all agro-ecological zones;
- Develop human resource capacity for climate-resilient agriculture;
- Elaborate on the implementation framework and the specific climate-smart agriculture activities to be carried out at the respective levels of governance.

Some specific actions or intervention for implementation include the following:

a. Development and Promotion of Climate-resilient Cropping Systems (e.g. Improve productivity through improved farming technologies and practices, such as the integration of trees into farming systems, green/organic farming, etc.; enhance capacity to further enforce the law of bush burning (bye-laws to be enacted in the districts to facilitate enforcement); Promotion of good fertilizer use on farms with more effective implementation of fertilizer programmes targeting smallholder farmers; More effective linkages between input suppliers and farmers).

b. Risk Transfer and Alternative livelihood Systems (e.g. Build and strengthen the capacity of extension officers; analysis and dissemination for agricultural planning; Institute risk transfer schemes (e.g. insurance) against local supply changes, harvest failure or weather risk; and support local authorities including traditional leaders to create partnerships protect and sustain biodiversity.

c. Improved Marketing Systems (e.g. actions include Promote marketing policies that increase competitiveness for the domestic and international market; Improve efficiency of farming practices through secure land tenure, effective pricing policies and access to credit.

National Riparian Buffer Zone Policy 2011

The riparian buffer zone play several functions including the following:

- Ecological: provide cooling effect on both terrestrial and aquatic habitat and influencing local climate; act as 'connecting corridors' that enable wildlife to move safely from one habitat to another; serve as carbon sinks and produce oxygen.
- Socio-economic: provide local community dwellers with valuable timber and alternative sources of income from non-timber forest products (NTFPs) such forage fruits and wildlife.

The Ghana Riparian Buffer Zone Policy aims at ensuring that all designated buffer zones along rivers, streams, lakes, and reservoir and other water bodies shall be sustainably managed for all.

The overall objectives of the buffer zone policy include:

a. To protect, restore and maintain the ecological and livelihood support

functions of the buffer zone;

b. To coordinate and harmonize policies and laws in the area of buffer zones amongst various governmental agencies with the view to achieve maximum synergy;

Strategies for implementing the policy include the following:

1. Maintaining the ecosystem function of buffer: The objective is protect the ecological integrity, geomorphologic, sacred and economic values attributed to buffer zones.
2. Sustaining the multi-functional of buffer zones: The policy objective promote the creation of carbon sink. For optimal carbon sink, native species (trees, shrubs, herbaceous plants and grasses) should be selected because they have co-evolved and adapted to the sites to assure strong health and vitality.
3. Coordinating and harmonizing policies, bye-laws and traditional practices on buffer zones among government institution and their in volved parties

Ghana National Bioenergy Policy 2010 - Draft

Biomass is the dominant source of energy supply of Ghana. Over reliance on woodfuel is accelerating the rate of depletion of Ghana's forests. The Bioenergy policy paper addresses the policy issues and recommendations for achieving the overall objectives of the Government in ensuring sustainability of the bioenergy sector. The goal of Government is to modernize and maximize the benefits of bioenergy on a sustainable basis.

The policy sough to address the Sustainability of supply of wood fuel. This is complemented by:

a. The requirements for evolvement of efficient technologies for woodfuel production and use;
b. The substitution of woodfuels with modern fuels such as LPG;
c. Efficiency in packaging, marketing and transporting woodfuels; as well as
d. The strengthening of institutional and regulatory arrangements.

Woodfuels, consisting of firewood and charcoal, constitute the most important energy forms in Ghana. It contributes about 60% of total energy consumption, and there is the need to put in place measures to deal with the negative impacts, such as deforestation and degradation. To be able to develop effective policies to ensure sustainability of biomass resource the following challenges needs to be addressed:

a. Sustainability of sources of supply;
b. Production of efficient technologies for woodfuel production and use;
c. Substitution of traditional woodfuels with more modern fuels like LPG
d. Improved packaging and marketing; and
e. Strong coordination in institutional and regulatory arrangements.

On the sustainable supply and production of woodfuel the policy objective is to promote and ensure sound management as well as expansion of the country's natural forest for sustainable supply of woodfuel. Strategies under this objective include the following:

- Identify, survey, map, assess and register the potential woodfuel re source stock outside the forest reserves in collaboration with Traditional Authorities (TAs), District Assemblies (DAs) and Forest Service Division (FSD).
- Support FSD and Agricultural Extension Units of Ministry of Food and Agriculture to create awareness on the need for sustainable supply, production and utilization of woodfuel.
- Collaborate with FSD to enforce regulations on the control of fringe communities in the harvesting and sale of the woodfuel in the forest reserve.
- Establish standards and operational procedures for woodfuel operators; (noncompliance to these would attract the necessary sanctions).
- Identify and provide incentives (financial and non-financial) for the development of woodlots in savannah and transitional zones under international funding protocols such as the Desertification Fund and Clean Development Mechanism (CDM) Fund.
- The DAs should liaise with traditional authorities to educate and release land to prospective individuals (especially women) and groups for woodfuel woodlots and plantation establishment.

Ghana Strategic Investment Framework (GSIF) for Sustainable Land Management (SLM) (2009 – 2015)

The GSIF is a 15-year programme to ensure sustainability of the country's land use and exploitation. GSIF is a programme adopted to address land degradation and promote sustainable land management in a holistic and coordinated manner. It is designed to create the enabling environment for policy development and incentives, knowledge generation and dissemination, promotion, adoption and up-scaling of SLM practices.

The goal of the GSIF is to "support the country's priorities in improving natural resource based livelihoods by reducing land degradation, in line with the Millennium Development Goals 1 (Extreme Poverty and Hunger) and 7 (Extreme Environmental

- Investment in field-based programmes and projects;
- Strengthening national, regional, district and community coordination on SLM;
- Building the capacity of public and private sector SLM related service providers;
- Improving the enabling policy, legal, institutional and financial environment for SLM;
- Building the GSIF knowledge base;
- Management and implementation of the GSIF.

Under this investment framework, there is sustained promotion of use of simple agronomic soil and water conservation measures e.g. agroforestry, crop rotation, tied ridging, mulching, contour earth bunds, multiple cropping, minimum tillage, establishment of vegetative barriers, improved fallow and stone lining. The GSIF for sustainable land management is one of the pivotal policy documents for climate change climate compatible strategies in the country. Climate-smart agriculture is rooted in land resources and their sustainable exploitation. The objectives of the REDD+ initiative and the various interventions are very much in tune with the GSIF.

Sustainable Development Goal 2015

Sustainable development goals are a set of global development goals adopted to end poverty, protect the planet and ensure prosperity of all. Each goal has specific targets to be achieved over the next 15 years (2016-2030).

Below are goals 13 and 15 that sought to address the issues of global climate change and environmental and natural resources, with some specific targets to achieve and which have been considered in included in Ghana's development priorities.

GOAL 13: Take urgent action to combat climate change and its impacts.

- 13.2 Integrate climate change measures into national policies, strategies and planning
- 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

GOAL 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

- 15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services,

in particular forests, wetlands, mountains and dry lands, in line with obligations under international agreements

- 15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and increase afforestation and reforestation by [x] per cent globally
- 15.3 By 2020, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land-degradation-neutral world
- 15.4 By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development
- 15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species
- 15.6 Ensure fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources
- 15.7 Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products
- 15.8 By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species
- 15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts
- 15.a Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems
- 15.b Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation
- 15.c Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities

National Gender Policy (2015)

The overarching goal of this Policy is to mainstream gender equality and women's empowerment concerns into the national development process in order to improve the social, legal, civic, political, economic and cultural conditions of the people of Ghana; particularly women and men, boys and girls in an appreciable manner and as required by National and International Frameworks. The objectives includes:

- To accelerate efforts and commitments of government in empowering women (especially women with disability) to have safe and secure livelihood, access to economic opportunities, decent work to improve earnings while addressing disparities in education, socio-economic and cultural issues, health and agriculture, trade and related matters. The core issue here is about 'Women's Empowerment'

- To speed up enforcement and domestication of ratified International Treaties, policies and strategies adopted by the Government to tackle violence, discrimination and promote gender equality and women's empowerment nationwide. In pursuance of this objective the rights based approaches will be emphasised. This objective addresses what the Policy classifies as 'Women's Right and Access to Justice'

- To support the passage and implementation of an Affirmative Action Law, and put in place transformative measures (including leadership development) that will enable women and men participate equally in achieving at least the 40% women representation in politics, on Boards and at all levels of decision making. In pursuance of this objective, a well-developed institutional capacity and a healthy political environment based on rule of law, government effectiveness, control of corruption, regulatory quality, will be promoted as necessary conditions for women's interest and rights. This objective area refers to 'Leadership and Accountable Governance for Women'.