Adapting Ghana's CREMA mechanism to implement climate-smart cocoa land use planning

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NCRC
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Summary

1. Ghana's cocoa landscape is a mosaic of farms, off reserve forests, gazetted forest reserves, fallows and settlements adjoining one another.

2. Cocoa cultivation and the absence of land use planning in cocoa distribution is driving deforestation and forest degradation as a result of encroachment of cocoa farms into forest reserves and the loss of shade trees and forest patches in the cocoa farming landscape. Landscape level land-use planning has been identified as a critical tool to reduce encroachment of farms into forest reserves and ensure greater environmental sustainability.

3. It is estimated that approximately 80 percent of Ghana's lands are held under customary tenure arrangements, the principal custodians being traditional rulers, earth priests, councils of elders, and family or lineage heads. Customary tenure is the main tenure arrangement within the cocoa growing landscape.

4. Despite the fact that majority of land is held under customary tenure, its custodians are technically and financially limited in their ability to ensure sustainable land use decisions and reforms without external support. In addition, the existing government mechanism for land use planning focuses substantially on physical urban and infrastructure planning, to the neglect of rural areas where agriculture production is the major land use decision. In effect, the planning and management of rural landscapes is left for the individual or customary custodians. As a result, landscape scale governance and land-use planning within rural cocoa areas does not occur under the business as usual scenario.

5. Customary land management institutions are inadequate to facilitate such planning on their own, as they face multiple challenges of significant magnitude. Customary institutions are not supported by the State, and therefore lack the funding and capacity to implement policies effectively. Ownership information and the location of boundaries are often derived from oral tradition and memory rather than with reference to surveyed maps, and this situation provides a fertile ground for litigation and insecurity of land under the customary system.

6. Since the 1994 Forest and Wildlife Policy, the government introduced a number of innovations to encourage local communities' participation in the management and sharing of benefits from the forest. The most successful of these measures has been the Community Resource Management Area (CREMA).

7. The CREMA approach has resulted in improved natural resources governance, conservation awareness, and increased collective community action in numerous jurisdictions. It has helped to reduced incidences of the anthropogenic activities that underlie deforestation and forest degradation activities. CREMA mechanism is particularly well suited to focus on landscape level land-use planning as a means to reduce encroachment into forest reserves.

8. The strengths and unique characteristics of the CREMA mechanism include its constitution, the establishment of a management board or executive committee, community-level committees, and agreed rules and regulations that are ultimately backed by district by-laws and endorsed by the local government and traditional authorities. A certificate of devolution of management

responsibility and authority, issued by the Minister responsible for Lands and Forestry, is achievable through the CREMA process. In principle, CREMAs encourage and can facilitate a community-based assessment and planning process, democratic decision making by the local leadership, and benefit sharing amongst all stakeholders. These and other tenets of the CREMA mechanism provide useful processes and structures to support participatory landscape level planning at the grassroots to reduce encroachment of cocoa farms into forest reserves.

9. The Climate-smart Cocoa Initiative in Ghana requires improved landscape management as it is broadly agreed that land-use planning at landscape or sub-landscape scales will be an important step in enabling this change, but to date there are few examples of how to actually do this.

10. The CREMA mechanism could deliver collaborative land use planning for cocoa landscapes where encroachment into forest reserves (deforestation and degradation) is a problem; however, with the requisite modifications and adjustments to fit the intended objectives, including engagement with the District Assembly, Area Councils, technical experts from the forestry and cocoa sectors, and possibly farmer associations with market linkages.

11. These ideas should be tested in a pilot project (or projects) with participation from all of the relevant stakeholders, right from inception. The project design should place emphasis on the financial, social, and environmental sustainability of the intervention. However, it needs to be acknowledged that any such project will require significant long-term, on-site support from the stakeholders initiating the pilot.

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List of Acronyms

CBNRM	Community Based Natural Resources Management
CBO	Community Based Organization
CCA	Community Conserved Area
CEC	CREMA Executive Committee
CEC	Executive Committee
CFM	Collaborative Forestry Management
CREMA	Community Resource Management Areas
CRM	Community Resource Management
CRMC:	Community Resources Management Committee
CSCWG	Climate-Smart Cocoa Working Group
CSA	Climate-Smart Agriculture
CSC	Climate-Smart Cocoa
CSOs	Civil Society Organizations
DA	District Assembly
DSPC	District Spatial Planning Committee
EPA	Environmental Protection Agency
FC	Forestry Commission
FCPF	Forest Carbon Partnership Facility
FSD	Forest Services Division
LAP	Land Administration Project
LC	Lands Commission
LUPMP	Land Use Planning Management Project
MESTI	Ministry of Environment, Science, Technology and Innovation
MLGRD	Ministry of Local Government and Rural Development
MLNR	Ministry of Lands and Natural Resources
MMDA	Metropolitan, Municipal, and District Assemblies
MoFA	Ministry of Food and Agriculture
NCRC	Nature Conservation Research Centre
NDPC	National Development Planning Commission
OASL	Office of the Administrator of Stool Lands
REDD+	Reducing Emissions from Deforestation and Forest Degradation
RPP	REDD Preparedness Proposal
RSPC	Regional Spatial Planning Committee
SAPs	Structural Adjustment Programmes
TA	Traditional Authority
WD	Wildlife Division

1.0 Introduction

In order to meet the world's food production needs while maintaining forest cover, new models are needed for farmers to transition to sustainable, resource-efficient agricultural production systems that do not drive deforestation or forest degradation. One such model is climate-smart agriculture (CSA).

According to Ghana's R-PP[1] (GoG, 2010), cocoa is one of the dominant drivers of deforestation and forest degradation in the high forest zone. Since 2011, Nature Conservation Research Centre (NCRC) has been working closely with the Government's National REDD+ Secretariat/Climate Change Unit (Forestry Commission) and Ghana Cocoa Board (Cocobod), as well as other key public and private sector stakeholders to inform policies related to cocoa cultivation. Working together as the Climate-Smart Cocoa Working Group (CSCWG), these stakeholders first sought to assess the state of cocoa farming in Ghana, as well as the condition of forest reserves and management of trees in farming systems. Their findings highlighted that cocoa is on an unsustainable path due to the prevalence of low yields and expansionist practices, coupled with its susceptibility to climate change. The working group also confirmed that cocoa is driving deforestation and forest degradation through encroachment into gazetted forests and the loss of shade trees and forest patches in cocoa farming landscapes (NCRC 2013).

In response, the working group proposed the adoption of a climate-smart cocoa production system for the sector. This model would focus on increasing cocoa yields and incomes, while promoting strategies to reduce the entry of illegal cocoa farms (and other types of farms) into forest reserves, maintaining forest patches in the off-reserve landscape, and maintaining/increasing tree cover in existing farms. These "climate-smart" approaches are clearly linked to the national REDD+ strategy and are highly relevant to the Cocoa Board's priorities. The key output of the CSCWG, at the end of 2011, was a consensus report entitled: "The Case and Pathway toward a Climate-Smart Cocoa Future for Ghana."

One element that emerged as being critical to the success of the climate-smart cocoa future for Ghana is landscape level planning of cocoa farming activities. To date in Ghana there are no such landscape planning of cocoa farming activities. Traditional chiefs and cocoa farmers have presided over Ghana's cocoa farming lands in an ad-hoc manner for the past century and land-use planning has probably been entirely absent. In addition, although the Forestry Commission (FC) manages a large number of forest reserves and has rights to timber trees across this cocoa landscape, structured discussions and planning between the FC, Ghana's Cocoa Board, and other cocoa sector entities did not occur. Yet continued cocoa expansion over time into forested areas[2] (both protected and unprotected), often times by migrant farmers, is resulting in many off-reserve forests becoming degraded remnants surrounded by minimally productive low-shade cocoa farms.

Thus, land-use planning at a landscape scale becomes critically important to opening up discussions about land, farming systems, and natural resources, their value (social, economic, ecological, and cultural), and then establishing locally appropriate rules and regulations that guide the present and future uses. Since April, 2014, the importance of landscape-level planning in cocoa farming landscape has been elevated by the recent acceptance of Ghana's Emission Reduction Program by the Forest Carbon Partnership Facility's (FCFP) Carbon Fund. Submitted jointly by the Forestry Commission and the Cocoa Board, Ghana's Emission Reductions Program for the Cocoa Forest Mosaic Landscape

[1] www.fcghana.org/nrs

[2] Amanor, K.S. 1996. Managing trees in the farming system. The perspective of farmers. Forestry Department, Accra, Ghana. 202 p.

specifically identifies land-use planning at a landscape level as being a central activity under the proposed 20 year initiative to reduce emissions from cocoa farming and other agricultural activities.

NCRC has been working with the support of IUCN NL Ecosystem Alliance program to test the potential for implementing the 1st Climate-smart Cocoa CREMA in Ghana. This work has progressed far and this document outlines some of the thinking and discussions that have served as the foundation for the approach to this work.

This report provides some initial thoughts on how the existing rural land-use planning and land management mechanisms could be adapted to meet the urgent needs of the cocoa landscapes and Ghana's Cocoa Forests Emissions Reduction Program.

2.0 Traditional or Customary Land Regimes in Ghana

The land tenure[3] systems of Ghana can be placed in two broad categories: the Customary Tenure Regime, and the Statutory Regime. These two systems are being used in parallel and they constitute the main framework for land acquisition and tenure security[4] in Ghana's rural and urban settings.

The customary tenure system is commonly practiced in rural areas. Its principles stem from rights established through first clearance of land, conquest, or settlement[5]. Its mechanisms are based on local practices and norms (rather than written laws) which have evolved over long periods of time (Agbosu *et al.,* 2007). Unlike the statutory system, customary tenure regimes are not usually codified, and are often devoid of written laws and regulations.

The principal custodians or managers of land under customary tenure in Ghana include traditional rulers, earth priests, council of elders, family or lineage heads depending on the culture of the people. These actors (and other agents classified among traditional authorities) hold the land in trust for the ethnic group, clan or family in question and they administer it in line with the accepted norms (which may vary along ethnic lines). In some major cultures in Ghana land is seen as a spiritual and divine heritage belonging to the past, present, and future members of the community.

It is estimated that about 78 to 80 percent of Ghana's lands is held under the customary tenure systems (Kasanga 2003, Sarpong 2006). Land rights and interest under this system range from allodial[6], through usufruct[7] to tenancy[8] arrangements. Allodial arrangements give full ownership of the land and it provides the owner with the largest bundle of rights. The Paramouncy represents the highest level of allodial title and is a traditional institution for which the authority is based upon the land, its primary resource, and the Stool's[9] management mandate. Customary land can also be held by inheritance, gift, and purchase. The rights conferred are limited to the essential elements of land

[3] Land tenure refers to rules and norms and institutions that govern how, when and where people access land or are excluded from such access.

[4] Land tenure security refers to enforceable claims on land, with the level of enforcement ranging from national laws to local village rules, which again are supported by national regulatory frameworks.

[5] Customary land can be categorized as allodial title (the highest possible interest in land), customary freehold title, leasehold, or sharecropping (or abunu/abusa) arrangements.

[6]. ALLODIAL INTEREST: The highest proprietary interest known to customary schemes of interest in land. It is sometime referred to as the paramount title, absolute title or radical title. Allodial title is vested in stools, skins, clans or families, and is the highest form of customary tenure in Ghana.

[7] Usufruct: Rights in land held by a member of the land-holding community or a stranger, who has obtained an express grant from the land-holding community, using customary mode of alienation. It is at times referred to as customary freehold, proprietary occupancy or determinable title

[8] The tenancy refers to a contract between a landlord and tenant which detail the rights and responsibilities each party holds.

[9] Chiefs in Ghana represent Stools and Skins which represent the community and all its customary assets including land.

ownership under the usufruct arrangement: they may endure for life, or they may be for a number of years (e.g. when the rights are terminated upon the death of the beneficiary, or transferred).

Under tenancy arrangements, one is given the right to use the land in question for a specified period of time. Other arrangements such as Share Tenancy, and land rental are common in cocoa growing localities. “Abunu” and “Abusa" are the two forms of share tenancy commonly practiced. Abunu is a sharing of the land on a 50:50 ratio between the land owner and tenant; while Abusa is sharing on a 2:1 between the landowner and tenant. With other crops, these arrangements can pertain to sharing of the crop and not sharing of the land, and it has been noted that in areas where land scarcity is prevalent or the value of land is increasing, these arrangements are changing.

Though traditional authorities have ultimate control over customary land, they are technically and financially limited in ensuring sustainable land use decisions and reforms. As a result, land use planning within rural cocoa landscape areas rarely happens. In principle, Chiefs “authorize” all uses of the land within their jurisdiction (especially on Stool lands), either directly through payment from land users or indirectly by observing activities. In the same respect, Chiefs can intervene to stop illegal land-use at any time.

For both the Traditional Authority and the landowners, the challenge is that while it might be in the common interest to reserve say green or forested areas from productive uses, such thoughts become idealistic in the absence of an appropriate compensation and incentive packages for the affected land owner. While the Traditional Authorities do receive revenue accruing from Stool Lands from various users, such payments are small relative to what might be required or deserved, and this may not necessarily trickle down to individual and family holders.

2.1 Customary land secretariats

As part of the Land Administration Project, land custodians in selected traditional areas were supported by the central government to set up Customary Land Secretariats (CLS) with the objective of improving land management and administration at the local level. The secretariats are under the direct supervision and control of traditional authorities, and are manned by local people. It is expected that the secretariats will help improve land use and management under the customary regime, through serving as an interface between the landowning communities and the state delegated institutions. They offer administrative services for holders and seekers of customary land rights.

There were only three Customary Land Secretariats prior to the commencement of the Land Administration Project (LAP) (see section 2.3.1): the Asantehene's Secretariat in Kumasi, Okyehene's Secretariat at Kyebi, and the Gbawe Family Land Secretariat in Accra. There are currently about 47 Customary Land Secretariats in operation at different parts of the country.

The customary land owners are required to constitute Land Management Committees/Boards whose membership will ensure that secretariats are accountable to the customary land owners and carry out their functions in line with the aspirations of the community, stools, skins and clans.

2.2 Strength and weaknesses of the customary tenure regime

The indigenous land tenure and management system has several advantages as through it land is made available to many people and purposes in rural Ghana. It has a wider coverage than the state system and dominates particularly in the acquisition of land by small holder farmers.

In spite of their critical role in society, customary land management institutions are seen as weak as they are faced with challenges of significant magnitude, and are unable to implement policies effectively without the support of the state (Kasanga, 2003). In most cases, the custodians under customary tenure rely on physical landmarks such as hills, streams, trees and ant hills (some of which are subject to variation or shift in position with time) to define their boundaries due to absence of maps. Ownership information and the location of boundaries are often derived from oral tradition and memory rather than with reference to surveyed maps. This situation provides a fertile grounds for litigation and insecurity of land under customary tenure.

The National Land Policy of 1999 identified insecurity of tenure for underprivileged or less empowered groups under the customary system as a key concern. Women in particular are thought to be at the disadvantage under the customary system. While they have legal rights to own and inherit property, in practice (under customary law) they can only gain use-rights through their husbands or fathers and do not themselves own land. They can however acquire land rights through renting, purchasing and sharecropping. In some cases, landlords have changed the terms under sharecropping at will due to the verbal nature of the tenure arrangements.

Often, displaced farmers considered by the custodians as squatters become aware only after a land deal between a custodian and an external developer is completed; there is little or no transparency. In some instances this had resulted in disquiet and conflict between the investor and the affected persons.

Because of the inherent restrictions and challenges with the customary system, land management for agriculture tends to move away from traditional family and sharecropping arrangements towards cash shorter-term rents paid in cash. This tendency towards less security of tenure discourages long-term investment and encourages shorter-term cropping systems. It also is a perverse incentive to any long term perspectives on land management.

2.3 Implications of the customary regime for landscape planning

In its current form, the customary system is not well equipped financially or culturally to support landscape level land-use planning. Landscape level planning and management needs to confront issues of legitimacy, disputed boundaries, overlapping claims and multiple ownership that have mushroomed under the customary system. However, the traditional authorities need to be a part of any landscape planning effort and the customary regime needs to be included in the process. In many respects, the customary land secretariats provide a unique opportunity for addressing most of the issues and obstacles associated with this traditional system. The reality, however, is that only a hand full of the CLS are operational, and the medium to long-term funding is not clear.

Some experts have also called into question the long-term viability of the customary system in the face of development pressures which are driving an increase in limited leasehold interests at the expense of freehold interests, and an increasing focus and desire for efficiency and equity, transparency, and accountability, issues that have not been the hallmark of the traditional system (Agbosu *et al.,* 2007).

Another challenge with the traditional system is that while forest reserve lands fall under customary ownership, the custodians have little or no management control over them. Rather, forest lands are held in trust by the state for the skins or stools and are managed by delegated state institutions of

which the Forestry Commission plays a prominent role. Where encroachment into Forest Reserves is taking place, the traditional authority can be reluctant to intervene, citing land shortages in the off-reserve area, or even justifying the encroachment by saying the state is to be blamed because of its compulsory annexation of customary lands for the reservations (as stipulated under various statutory instruments)[10].

3.0 Community-based Landscape Planning Mechanisms

Under the 1994 Forest and Wildlife Policy, the government attempted to introduce a number of innovations to encourage local communities' participation in the management and sharing of benefits from the forest through a redefinition of its relationship with local communities. A couple of Community Based Natural Resources Management (CBNRM) mechanisms were fashioned and introduced either in theory or practice during the paradigm shift to include communities in natural resources management. These include CBNRM variants such as Participatory Forest Management, Community Based Forest Management, Dedicated Forest, and Community Resource Management Area (CREMA). Though referred to with different names, the above mechanisms have a common underlying principle[11]. With the exception of CREMA, most of these strategies that were conceived at the time were not implemented beyond the pilot stage in Ghana.

3.1 Community Resource Management Area Approach

The Community Resources Management Area (CREMA) is a policy mechanism for natural resources management within the defined areas. Devolution of authority to the CREMA from the Minister responsible for Lands and Natural Resources is conditional and confers the right to restrict access to common property and extra-farm resources. It adapts same CBNRM principles used elsewhere to Ghanaian conditions. Development of the CREMA as a landscape governance and management tool goes through a number of processes. These include developing CREMA governance and management structures, developing the CREMA constitution, defining the CREMA boundaries, preparing the bye-laws, preparing management plans, seeking recognition for the CREMA and hence a certificate of devolution.

3.2 Developing CREMA governance and management structures

The first step in the CREMA development process involves a flash analysis of the social-ecological status of a target area to determine whether or not the area is "CREMAble"-i.e. whether or not the prospective constituent communities have collective action and unity and also ascertain the land ownership and decision making structures, state of the resource base and land uses among other social-ecological considerations. This kick starts a process of clearly defining the decision making structures of the constituent communities to determine how they can be adapted as the organizational structure of the CREMA. A number of tools such as stakeholder analysis workshops, key informant interviews with community leaders and higher traditional authorities, and officials of the district assembly and other social interactive methods of information gathering and analysis are deployed in this process. This is a very crucial part of the CREMA process and therefore care must be taken in the kinds of expectations that may be generated.

As much as possible, existing structures must be adapted in order not to create parallel constructions that tend to generate avoidable tensions and the "them and us relationships" that may result in unnecessary rivalries, duplication of efforts, and associated inefficiencies. Nevertheless the organizational arrangement

[10] Forest Protection Decree (National Redemption Council Decree (NRCD) 243) of 1974 and the Amendment Act 624).

[11] They are local people centered

of the CREMAs is that a Community Resource Management Committee (CRMC) is formed at each constituent community. Where communities are small in terms of size and population a number of them that share collective action may form one CRMC. Following this a CREMA Executive Committee (CEC) with membership from the various CRMC and other co-opted resource persons would be formed to manage the CREMA as a single management entity.

3.2.1 Developing the constitution

A constitution in the CREMA context is a document that sets out the organizational structure with agreed rules and regulations that all will abide by. It is a social contract that operates at different levels. Firstly, it is between the individual CREMA constituents such as farmers, hunters, gatherers etc, and then between groups of farmers, hunters, gatherers and finally between external entities such as the district assembly, wildlife division, and the groups either jointly and/or severally. In itself the constitution is not law but it may be recognized by law and the agreements in it can be enforced by law.

The constitution is important because from a legal perspective the community may be poorly defined and therefore cannot be seen as a corporate entity to be held accountable by law. However, if the community is able to define its geographical location, membership and particularities it becomes more recognizable as an entity that can be more effectively engaged. The constitution should be flexible and adaptable to changing circumstances and its rules and regulations should be based on the legitimate decision making framework of the communities. This is even more crucial if the constituent communities have different social backgrounds. Consensus building through stakeholders engagements will be imperative in arriving at a product that will be fair and acceptable to all concerned since there will be only one constitution for the CREMA and not separate ones for each constituent community.

3.2.2 Defining the CREMA boundary

Defining the CREMA boundary is important in determining the area within which the constitution is enforceable. This boundary that defines the “community” should be clearly marked with the involvement of the leadership of all the various communities and specified in the CREMA constitution which will ultimately be backed by a district assembly bye law.

3.2.3 Preparing the bye laws

A joint committee made up of representatives of the CREMA executive, the traditional authority (ies) the Wildlife Division and the District Assembly reviews all local rules and regulations and other national laws such as the Wildlife Conservation Regulations 1971 L.I. 685, other District Assembly bye laws and prepare draft bye laws. The bye laws should not be inconsistent with any operative law of the land. The draft byelaw is sent to the District Assembly Bye Laws Drafting Committee for review and comment towards preparation of the final acceptable draft for approval.

When approved by the Drafting Committee the bye laws are presented to the General Assembly of the District Assembly for debate and ratification. If ratified the byelaws are forwarded to the Regional Local Government Office for comment. If the Regional Local Government Office does not lodge any objections within 21 working days of submission, the byelaws are signed into effect by the Presiding Member of the District Assembly. The District Chief Executive then signs the covering letter and it is sent to the Government Publisher accompanied by the appropriate fees for gazette publication.

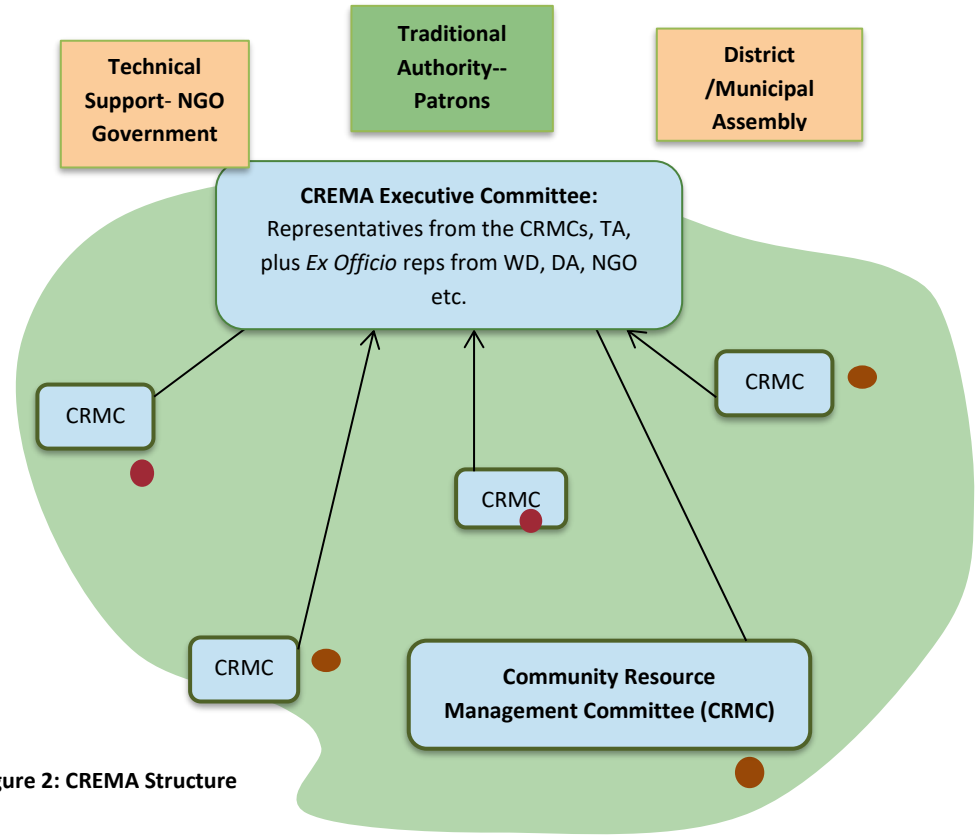

Figure 2: CREMA Structure

3.3 Recognition of the CREMA by the Forestry Commission

CREMA establishment is the remit of the Wildlife Division and therefore it plays a crucial role in facilitating the coming into being of the institutional and operational structures of the CREMA. Consequently, it ensures that all the structures are well grounded and approved before recommendations are given to the Minister to issue the Certificate of Devolution.

3.4 Certificate of devolution

The last part of the process of building the institutional structures of the CREMA is the issuance of the Certificate of Devolution of management responsibility and authority with concomitant rights by the Minister responsible for Lands and Forestry through recommendation from Wildlife Division of the Forestry Commission.

In terms of the representation and organizational arrangement of the CREMA, the farmers/resource users, local/traditional leadership and landowners compose the membership of the CREMA or in corporate terms the shareholders. Through the Community Resource Management Committees (CRMCs) the individual farmers determine the policies and activities of the CREMA and hold the Community Executive Committee (CEC/Board) accountable through their own structure at the community level. The CECs are responsible for formulating and amending the constitution to ensure the effective operation of the CREMA.

The CREMA mechanism, if well structured, has the role to implement effectively an integrated and participatory land use planning for resources management. The strong community level composition of the CREMA with its attendant democratically constituted governance framework makes it credible to ensuring sustainable land use planning. Local agreements (or local conventions) on the utilization and protection of natural resources which regulate use and access are important tools for the decentralized management of natural resources and the CREMA engenders this. In summary the CREMA builds into operation the following: internal local legitimacy, representation and open participation, transparency, the equitability of solutions, the legality of regulations (through district assembly collaboration), the level of institutionalization, the ecological sustainability and the economic profit (benefit sharing) for local populations.

3.5 Strength and weaknesses of the CREMA mechanism

In principle the CREMA mechanism is about giving people the option to determine how they wish to manage their land and forest resources individually and collectively. Its greatest success to date is improved resource governance, conservation awareness, and increased collective community actions in the areas where it is being implemented. CREMAs have resulted in reduced incidence of the anthropogenic activities that underlie deforestation and forest degradation and are contributing immensely to the protection of ecologically sensitive areas and wildlife habitats outside the state protected area system (Agyare, 2013). Some further positive attributes of CREMA are provided below.

However the CREMA concept is not without constraints. Some CREMAs are ineffective or defunct (Agyare, 2013). The main issues of immediate concern are discussed; firstly, the viability judgment of CREMAs, in the current form of the concept, is too dependent on the availability of natural resources particularly wildlife. It also depends on whether the area (if it is not endowed) has the potential to recruit to assure a return of wildlife. This requires that a large area is covered under the CREMA since wildlife is mobile and often not confined to small land holdings. Thus communities that are deeply divided over ownership of land and natural resources will not have collective action and unity to develop sufficient consensus to form a CREMA. This may pose a challenge for achieving a landscape impact under CREMA.

Secondly, establishment of most of the CREMAs has been done with relatively short term donor support and therefore the socio-ecological processes that are initiated to establish a CREMA do not run to full completion before projects fold up (Agyare, 1997). When institutions are not empowered to execute their role or when they do not have the capacity to continue to perform their functions over the long term without being dependent upon external support, it is highly questionable that sustainable development can be achieved.

Consequently, the local people to whom the processes are handed over do not achieve self-organizing status and are left “half – baked” and unable to take full ownership and control of the processes. In the circumstances, governance suffers and the economic rationale of CREMAs also remain weak and hence some of them suffer “elite capture” where particularly, the land owning communities or authorities hijack the processes and the gains that emerge from them to their benefit and at the expense of the majority of the people (Agyare, 2012).

Thirdly, and perhaps the most potent challenge is that because CREMAs seek to balance conservation and development it is imperative to mobilize multiple centers of governance to strengthen local governance capacity and provide linkages to other stakeholders at multiple scales. The challenge however, is that functionally, the CREMAs lack the requisite vertical linkages in particular and some horizontal linkages in general that allow coordination of governance processes and sharing of information that influence positive socio ecological outcomes and improve welfare. The challenge can

also be attributed to weak horizontal linkage at the district assemblies and the fact that natural resource governance is not considered as cross cutting in the district development planning and implementation processes (Agyare, 2012).

4.0 Climate-smart Cocoa and Landscape Planning

Climate change poses a major threat to countries and communities across Africa and around the world (Carius, 2009). In an effort to mitigate the potential effects of climate change by reducing the amount of carbon dioxide being emitted into the atmosphere, and to enable people to adapt to life under a changing climate, a number of global mechanisms and efforts have been initiated and are evolving. At least two of these initiatives are being implemented in Ghana and have strong community-based elements and important implications for landscape management. The first is known as REDD+ (Reducing emissions from Deforestation and Forest Degradation (REDD+), and the second is climate-smart agriculture (CSA).

4.1 Reducing emissions from Deforestation and Forest Degradation (REDD+)

Reducing emissions from Deforestation and Forest Degradation (REDD+) focuses on reducing deforestation and degradation rates, while also supporting carbon stock enhancement, sustainable forest management, and conservation of carbon stocks (Asare, 2013). It is a performance based mechanism that aims to create financial and other types of incentives to reduce the rate at which forests are being converted to other land-use types and in the process causing carbon dioxide emissions.

Previous forestry projects and programs were about drawing up a concept, seeking funding to support that concept and its program of action, and then reporting on the outcomes and impacts. To the contrary, REDD+ is a *performance based mechanism*, which means that payments are not received until a country or project can demonstrate that carbon dioxide emissions from deforestation or degradation have been reduced, or that carbon dioxide in the atmosphere has been sequestered through the growth of forests or trees (Asare and Kwakye, 2013).

Ghana is one of the leading countries on REDD+ in Africa and is steadily developing the capacity and systems required for full implementation, including a forest monitoring system, a measurement, reporting and verification (MRV) mechanism, a social and environmental safeguard system, and a benefit sharing framework. REDD+ will be implemented using a nested approach that allows for implementation at various scales, including the project scale or across whole eco-zones (a programmatic approach). Given that cocoa expansion and encroachment is a dominant driver of deforestation in Ghana, it is one of the major areas of attention with respect to Ghana's REDD+ strategy. It is also the focus of Ghana's emerging Emission Reductions Program that covers the entire cocoa forest mosaic landscape.

For REDD+ to work, real changes in the way that people use the land and forest resources is required. Facilitating such change, however, is not an easy task. Communities, land users, resource users, land owners, traditional leaders, and other key decision makers all have a role to play. Amongst REDD+ stakeholders and experts it is broadly agreed that land-use planning at landscape or sub-landscape scales will be an important step in enabling this change, but to date there are few examples of how to actually do this.

Climate Smart Agriculture (CSA) is different from REDD+ in that it does not sit within a national initiative, architecture, or system, per se. Instead, CSA retains a project or programmatic identity, but may incorporate the multiple stakeholders that have an influence along an agricultural commodity's

value chain. In the Ghanaian context, CSA can work as a nested project or program within REDD+, as is currently happening with the Cocoa Forest REDD+ Program, or it can be focused on a landscape where REDD+ is not relevant or possible, but agriculture is a dominant land-use activity.

According to the FAO (2013), CSA refers to agriculture that sustainably increases productivity, resilience (adaptation), reduces or removes GHG emissions (mitigation) and enhances the achievement of national food security and development goals. In Ghana, for Climate-Smart Cocoa (CSC) to work it cannot focus at the individual farm scale, as is currently the case with certification and other extension efforts. Instead, it needs to serve as the capstone to a bundle of coordinated but diverse actions that can be monitored at a landscape level and collectively result in the production of climate-smart cocoa beans by virtue of being produced from a climate-smart landscape. Given the nature of Ghana's cocoa production system, the challenges facing the sector and the identified pillars of CSA, the main elements of a CSC approach will not be equal. The CSC approach in Ghana needs to be founded upon the following main elements:

- Mitigation coupled with MRV and data management;
- Increases in yield, founded upon effective extension systems, access to inputs, targeting of appropriate soils, and farmer risk reduction packages;
- Economic development that is enhanced by land-use planning.

The by-products or benefits that will derive from these foundational activities will include adaptation and food security (Asare 2014).

4.1 Challenges and gaps to be addressed

The current regime of land use planning focuses substantially on physical planning to the neglect of rural areas where agriculture production is the major land use decision. In effect, the planning and management of rural landscapes is left for the individual or customary custodians. Under the current regime of a pluralistic land tenure, ambiguous ownership arrangements, landscape level planning and implementation by customary custodians on their own will remain a wish, as stakeholder support and intervention are critically necessary to achieve desirable outcomes. In reality, no real land use plans are implemented for much of the cocoa growing areas. Where state agencies such as the Town and Country Planning Department are in charge and have drawn land use plans, implementation and enforcement have been weak due to the several challenges earlier discussed, including limited funding to carry through plans and the lack of collaboration and understanding from custodians due to the inadequacy of the processes leading to such plans.

It is expected that the proposed land use bill and the intention to roll out a nationwide spatial planning project under LAP 2 will go a long way to resolve some of the difficulties with the current system; that is, if the project is successfully implemented thoroughly. A pilot scheme implemented with positive feedback for the Western Region under LAP 1 will be expanded to four other regions over the next five years (MEST, 2012). However this excludes the Brong-Ahafo Region, which is a major cocoa growing hub where multiple forest reserves share boundaries with cocoa farms. Substantial difficulties such as weak institutions, inadequate funding, and disagreement over zoning schemes (particularly where it involves land under family or customary ownership) are expected to arise.

In light of the above points, and in order for sustainable landscape level land-use planning to be achieved for the cocoa landscape, it will be important to put in place a strong grassroots based collaboration that enables local ownership of the process. In other words, land use planning for the cocoa production landscape will be most sustainable where there exist strong grassroots structures, and the people for which such plans are drawn assume ownership of its implementation. Adaptation of the CREMA mechanism to complement spatial planning at the local level holds great promise.

4.2 Potential for CREMA in landscape level planning for climate-smart cocoa and REDD+

As discussed above, a CREMA is a defined land area of significant endowment of natural resources where communities have organized themselves to sustainably manage the resources in question. Inherent within this process is the need to assess and plan how the land and resources are used. Therefore, CREMA is particularly well situated to focus more intently on landscape level land-use planning as a means to reduce encroachment into forest reserves, and with over 30 CREMAs in various stages of development in the country, there is a broad range of lessons to draw from and CREMAs to work with.

The strengths and unique characteristics of the CREMA include its constitution, the establishment of a management board and community-level committees, and agreed rules and regulations that are ultimately backed by district by-laws and endorsed by the local government (i.e. a District Assembly) and certificate of devolution. In principle, CREMAs encourage and can facilitate a community-based assessment and planning process, democratic decision making by the local leadership, and benefit sharing amongst all stakeholders. These and other tenets of the CREMA mechanism provide useful processes and structures to support participatory landscape level planning at the grassroots to reduce encroachment of cocoa farms into forest reserves. Table 1 below highlights aspects of the CREMA system that are particularly relevant for landscape level planning.

Table 1: Elements of CREMA that complement landscape-scale land-use planning

CREMA ATTRIBUTES	DESCRIPTION
Defined by a landscape with clear rights	By definition, a CREMA is defined by a landscape (that is bound by social and/or physical boundaries) and is focused on managing the natural resources within the landscape towards defined goals. The rights to the land are clear, as the stakeholders in this process, including the Traditional Authorities and land-owners, are recognized constitutionally as the land owners, and via the CREMA process management rights are devolved.
Grassroots mobilization mechanism	The philosophy that underpins the CREMA concept and the process that it follows makes it one of the few mechanisms equipped to aggregate farmers and forest users, from all sectors of the population, and communities, within a defined landscape, towards communal planning of land-use and natural resource management. When well-structured and implemented, the CREMA establishes a sense of ownership and responsibility amongst the collective communities and individuals, that enables the common good to be placed above the self-interest.
A tested governance structure	The governance structure of a CREMA includes ordinary community members, resource users, representatives of the traditional authority, committee members, and also an Executive board. This model has been piloted and successfully applied for collaborative resource management in many rural settings in the high forest zone of Ghana. Thus, CREMA provides a governance structure that would be able to implement, manage, and/or monitor decisions taken during a landscape-level land-use planning exercise.
Balance between conservation and community	As in any community natural resources management arrangement, the concept of sustainable use underlines the CREMA mechanism. CREMA ensures self-regulation of its members through the governance structure and an instilled sense of ownership and responsibility to sustainably use and conserve the defined natural resources for their ecological, social and cultural values, in addition to the economic value.

CREMA ATTRIBUTES	DESCRIPTION
CREMA embraces existing local institutions and structures	CREMA recognizes the role of traditional authorities and it allows representation of chiefs on CREMA boards and committees. The CREMA also builds linkages to the District Assembly and the Forestry Commission (Wildlife Division). This element ensures inclusion of all the key power bases (traditional authority and government institutions) in decision making and monitoring of rules by leveraging the reverence accorded to the traditional authorities by their subjects and the government's authority to enforce rules and laws. This attribute is particularly useful for land use planning as it will ensure the acceptability and legitimacy of zoning schemes for effective implementation of land use plans delivered through a CREMA arrangement.
Embraces democratization of environmental administration at the local level.	The CREMA concept embraces a "one man, one vote" principle. This means that each committee member is involved in decisions regarding resource use. This element is relevant to land use planning in that it will ensure that the rights of the less privileged are protected.
Conflict resolution	Inbuilt into the CREMA mechanism is a strong conflict resolution mechanism relating to access and use of natural resources. It recognizes that potential conflict of interest does exist, and places emphasis on conflict resolution mechanisms including traditional conflict mediation approaches. This attribute is useful for land use planning, which is expected in some cases to place the "common good "over an individual's interest- a situation that may lead to disagreements and possible conflicts.
Equality in the distribution of benefits	The CREMA framework enables communities to define a benefits sharing system for all of its constituents, either directly or indirectly. It ensures that the dividends that accrue from resources management are equitably (as defined by the communities) distributed, while also allowing user rights that serve the livelihoods needs of its constituency. This tenet of the CREMA creates clear incentives which would align well with communal land use planning and implementation.

4.2.1 Gray areas of CREMA for land use planning

This section identifies elements of the CREMA mechanism that may prove challenging from a land-use planning standpoint or it highlights attributes that remain "gray areas" in terms of whether the CREMA mechanism can fit within a landscape level planning arrangement (Table 2).

Table 2: Elements of CREMA that may pose challenges to landscape-scale land-use planning

CREMA ATTRIBUTES	DESCRIPTION
CREMA scale	The scale of individual CREMAs may not cover an entire landscape or sub-landscape, especially when Forest Reserves or National Parks form part of the landscape. Merging or integrating with "sister" CREMAs could help to build the continuity across the landscape, but other State entities, like the Forestry Commission, will need to be part of the broad landscape planning process so as to avoid management fragmentation.
CREMA time-frame	Developing a CREMA is not a quick process. Therefore, the ability to use a CREMA to facilitate land-use planning will necessitate a CREMA that is already well underway in terms of the full development and devolution process. Where issues of encroachment are urgent and a CREMA does not exist, it may not be realistic to focus on developing a CREMA with the local communities and authorities as time-frames would not align.

CREMA ATTRIBUTES	DESCRIPTION
Complex institutional framework (Potential institutional conflicts)	CREMAs already requires a multitude of institutional relationships (i.e. with the Ministry of Lands and Natural Resources, Forestry Commission's Wildlife Division and potentially Climate Change Unit, supporting civil society organizations, and the District Assemblies). Though the CREMA concept does not restrict involvement of other relevant stakeholders and is amenable to customized re-orientation to suit particular demands, its elasticity can go only as far as feasible. Considering that land use planning under a climate smart scheme would mean that many more stakeholders will have to be included or consulted, it is worth questioning whether the CREMA framework can support additional institutional relationships, balance the associated complexities, and align with their structures and mandates.
Legality and enforcement	The legal framework of CREMA is derived from the 1994 Forest and Wildlife Policy. CREMA is recognized by the Forestry Commission as a vehicle for collaborative natural resource management. It is also backed by District Assembly by-laws and the CREMA by-laws, as well as the CREMA constitution. To allow for its adoption for collaborative land use planning particularly at the grassroots level, it might be necessary to examine the legal framework of CREMAs to determine if it provides sufficient legal backing for land use plans to be enforced or implemented through this model.
CREMA's role on-reserve	Considering that landscape level land-use planning will aim to reduce illegal encroachment of cocoa farmers on forest reserves, amongst other objectives, a crucial question will be whether the Forestry Commission will enable CREMAs to play a role in forest management (e.g. community based monitoring) and how emission reduction benefits will be shared.
Multiplicity of land ownership regimes	Multiplicity of land ownership regimes and its implication for reaching land-use consensus at the grassroots cannot be overemphasized. Ones of the challenges anticipated in the implementation of a land-use planning at the community level is how committees could successfully negotiate for a land use considerations which places communal interest over the land owner's wishes and interest, considering that ownership of land is not only by stools but also by families and individuals. Will financial compensation be important, and is it a viable option considering that the CREMA may not be that endowed financially.

4.2.2 Adaptations CREMA would require

Though the CREMA mechanism has evolved over the years to now include sustainable use and management of natural resources in general, such changes are not far reaching enough, as some CREMAs are still faced with accountability and transparency challenges (Ecosystem Alliance 2012).

In order for the CREMA to be relevant for climate smart agriculture and to serve as a vehicle for collaborative land use planning, there may need to be revisions to the CREMA structure and/or membership to include the relevant interest groups and stakeholders. Already, CREMA allows for *Ex Officio* membership on the Executive Committee or within the community committees, therefore focusing on adopting the right Ex Officio members may be all that is required. However, it is also possible that particular CREMA's missions would need to be revised and new relationships and linkages established with the relevant stakeholders. The following are some of the changes that need to be considered:

- Representatives of key stakeholder institutions responsible for land use planning at the district level should be co-opted as members of the CREMA committees;

- The membership and constitution of functional CREMAs should be revised to embrace stakeholders representing other land use practices or systems, which may not necessary relate to natural resources but do have the potential to cause environmental degradation;
- There is the need for CREMAs to incorporate a stronger business and revenue generating agenda, as well as financial management and accounting focus into their operations in order for them to remain financially viable and responsive to the needs of CREMA members;
- The draft land use planning bill provides an opportunity for local committees to champion land use planning of their constituencies.

4.3 Structures CREMA needs to work with to support climate-smart and REDD+

To effect a more dynamic CREMA with the full capacity and support to facilitate land-use planning, engagement with the below entities (Figure 3: dark green boxes with back dotted line boundaries) may be strategic, either though the CRMCs, the CEC, or both.

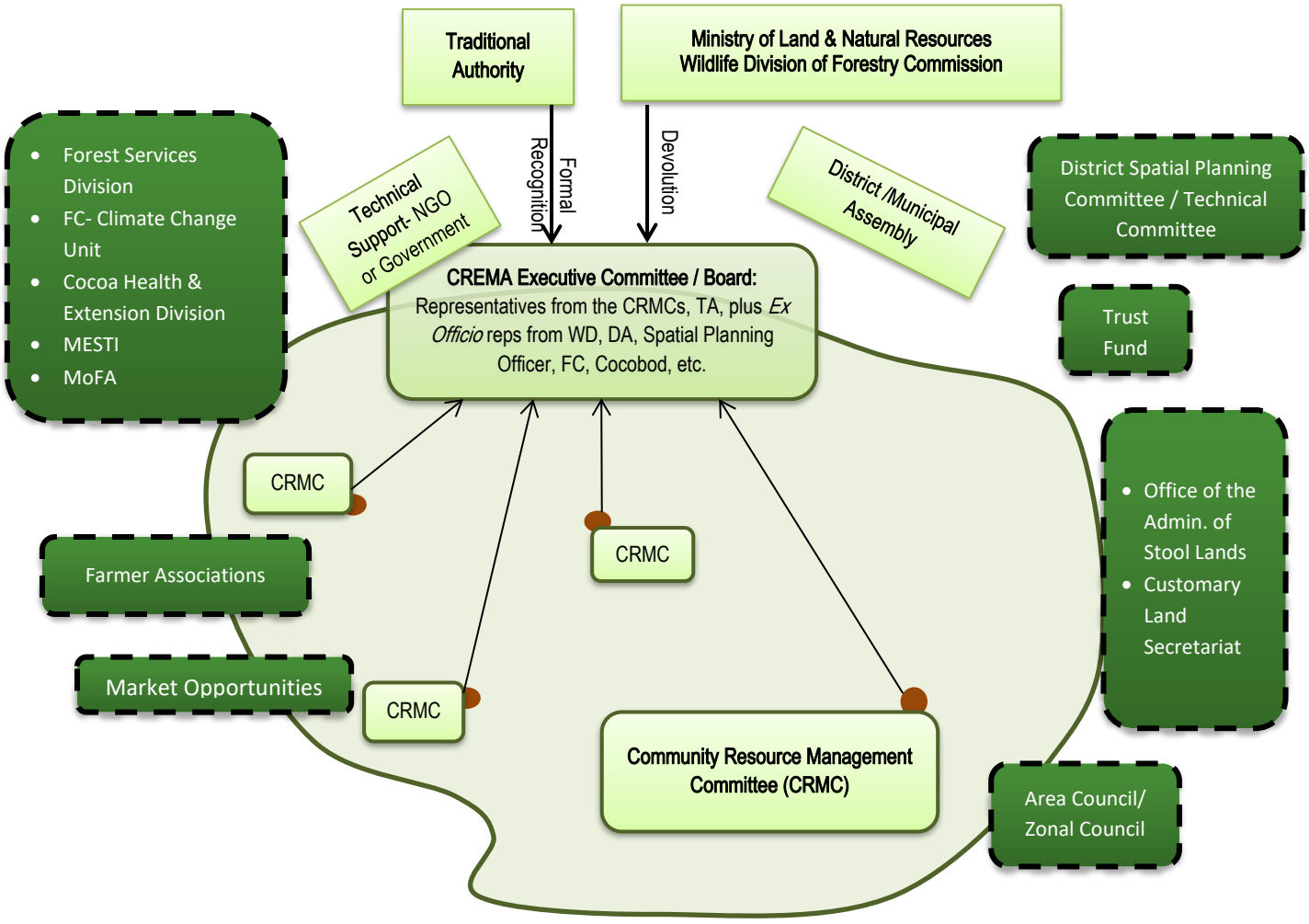

Figure 3: Entities CREMA might need to work with

Technical experts from various sectors, including Cocoa Board (Cocoa Health and Extension Unit), Forestry Commission (Forest Services Division, Climate Change Unit, Wildlife Division), and Ministry of Food and Agriculture (MoFA) could contribute important advise and partnership opportunities to CREMA management and land use planning, particularly with respect to the CREMA's relationship to

Forest Reserves, management of trees in the landscape, potential for CSA or REDD+ approaches, adoption of best practices/CSC for cocoa farmers, and access to critical farming resources. These technical experts could serve as *Ex Officio* members of the CEC or the CREMA could opt to sign an MOU with their institutions or establish a similar sort of arrangement.

As part of CREMA engagement with the District Assembly and to strengthen ties with District-level planning activities, the Spatial Planning Officer could be made an *Ex Officio* member of the board and links should be established to the District Spatial Planning Committee and/or its Technical Committee (when fully established and implemented). Until then, the obvious link would be with Town and Country Planning. Ties with the District Assembly could also be strengthened if the CRMCs included Unit Committee members and if the Executive Committee included elected members of the Area Council / Zonal Council within the CREMA area.

Assuming that the Land Use and Spatial Planning Bill is passed, including a CREMA representative on the District Spatial Planning Committee would further strengthen action and support for land use planning by a CREMA.

Some CREMAs have already established formal relationships with farmer associations and private sector agricultural companies as a means to develop market opportunities for CREMA members. Land-use planning may strengthen such opportunities by designating specific land or resources for economic activities (e.g. organic shea collection by women in the Wechiau CREMA) that might have otherwise been used in a different manner. Land-use planning may also result in trade-offs between current and future land-use (e.g. designating certain lands to be "retired" to accrue carbon and/or other ecosystem service benefits) in which case establishing marked-based opportunities to generate new revenue opportunities or benefits will be crucial to helping off-set the opportunity cost.

5.0 Conclusions and Recommendations

The current agricultural land use planning in the cocoa growing landscape leaves much to be desired, as state land use planning agencies are poorly resourced and are focused on structural planning at the expense of other land uses. The new three-tier Land Use Planning System currently at the pilot stage is expected to inject some sanity into the system. Substantial uncertainties regarding sustainability of funding for a national roll out of the program, and a timely and thorough implementation of planned activities remain legitimate concerns. Anything short of a sincere and actual collaboration and ownership of land use plans at the local level to ensure consensus on land use zoning schemes can trigger a failure of any well intended land use planning intervention.

There is strong consensus that CREMA is an appropriate model to enable landscape level land-use governance, planning, and management. None of the other mechanisms has a rural, landscape, community, farming orientation as has developed in concept as CREMA. Thus CREMA should be considered for delivering a collaborative land use planning for the cocoa landscape, however with the requisite modifications and adjustments to fit the intended objectives. For instance a revised CREMA structure that has strong linkages or representation from the District Assembly organs such as the Unit Committee, Area Council/Zonal Councils, and with the District Spatial Planning Committee represented.

It is recommended that these ideas are fully tested in a series of pilot projects. One such project could be implemented involving existing CREMAs in the Brong-Ahafo Region. The pilot should involve all the relevant stakeholders right from the inception. It should be designed around the multiplicity of key stakeholders including the customary land secretariats, the LAP, relevant traditional authorities, district assemblies, etc.

Finally, the project design should place emphasis on financial, social, and environmental sustainability of the intervention. However, it needs to be acknowledged that any such a project will require significant long-term on-site support from the proponents.

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