Graduate School of Development Studies

DILEMMAS OF IMPLEMENTING REDUCING EMISSIONS FROM DEFORESTATION AND FOREST DEGRADATION (REDD+): EVIDENCE FROM REDD+ PILOTS IN WESTERN REGION, GHANA

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List of Acronyms

ASDA	Aowin Suaman District Assembly
CREMA	Community Resource management Areas
CRIG	Cocoa Research Institute of Ghana
DA, MTDP	District Assembly-Medium Term Development Plan
FAO	Food and Agriculture Organization
FC	Forestry Commission
FDCs	Forest Dependence Communities
FLEGT	Forest Law Enforcement, Governance and Trade
FSD	Forestry Services Division
GHG	Greenhouse Gases
GoG	Government of Ghana
IUCN	International Union for Conservation of resources
MOFA	Ministry of Food and Agriculture
NTFPs	Non Timbers Forest Products
PES	Payment of Environmental Services
PHC	Population and Housing Census
PPR	Pro-Poor REDD+
REDD+	Reducing Emissions form Deforestation and Forest Degradation
R-PIN	Readiness Plan Idea Note
IPCC	Intergovernmental Panel on Climate Change
LUC	Land Use Change
MLNR	Ministry of Land and Natural Resources
NRSC	National REDD+ Steering Committee
SD	Sustainable Development
WB	World Bank
UNFCCC	United Nation Framework Convention on Climate Change

Abstract

Reducing Emissions from Deforestation and Forest Degradation (REDD+) is an interesting environmental policy in the global South to reduce carbon and support livelihood. Ghana is planning to implement REDD+ with the state as a key implementer. This paper examines how state actors are planning to mediate the competing objectives of land use change for REDD+ and agriculture expansion and to what extent state actors involve the participation of forest fringe communities in this process. To examine the roles of state and non state actors in reconciling REDD+ and agricultural production goals, qualitative case study research was conducted in two REDD+ pilot sites: Aowin Suaman and Wassa Amenfi west, both in western Ghana. Interview results firstly show that state actors are planning to improve upon the existing forest policies by working with forest fringe communities however, the final decision rests with the state officials. Secondly, the knowledge level of local people in the pilot areas about REDD+ is relatively low, especially on marketing carbon, because of the complex nature of REDD+ in valuing carbon for marketing. The state actors are facilitating a contradictory role by encouraging farmers to expand agriculture lands which drives deforestation, at the same time to interplant trees in agriculture farms which encourages reforestation. Agricultural activities are for food to reduce hunger and generate income for the country as well as increasing tree cover in their farms in the same piece of land. In conclusion the paper proposes that, policy makers of forest conservation should pay critical attention to process and work to strengthen the capacity of state and non-state actors when reviewing forest policies for REDD+.

Relevance to Development Studies

REDD+ is an important environmental mechanism to reduce GHG emissions and to lessen the recent climate changes and its effects on human welfare and economic development; which has been identified as imperative for a sustainable development. Thus this research promises to contribute to the understanding of complex issues of REDD+ as a means of informing better policies for REDD+ governance and sustainable forest management in Ghana.

Keywords

REDD+, State, Forest policies, Deforestation, land use

Chapter 1 Introduction

"*The inclusion of REDD+ into the climate regime is highly controversial, with debates on the effectiveness of understanding levels of carbon sequestration, national-or project-level accounting, the right of indigenous people and forest communities and the incorporation of other ecosystem services into a carbon commodity* " (Peet et al 2011: pp 218)

1.1 Climate Change, REDD+ and Agriculture for Development

The state is responsible for the wellbeing of its population providing security and encouraging economic development. One of the problems facing most states is global climate change and its effects on resources and human health. Ghana is going through rising temperatures; the country's temperature has risen is about 1^0 and about 20% reduction in rainfall has occurred since the 1960's (EPA 2000). Climate change has economic, environmental and social impacts in Ghana especially on rural farmers who depend largely on rainfall (Fosu-Mensah et al. 2012). Small-scale agriculture is keystone to Ghana's economy: it contributes 35% of Ghana's GDP and employs 55% of the nation population (Ghana Fact Sheet 2010). The impacts of climate change motivated Ghana and other states actors to come together to find solutions including a policy named REDD+.

The earth climate is changing unambiguously because of some forcing agents such as increase in atmospheric concentrations of green house gas (GHG), aerosols and changes in solar activities. Most of the GHG are from natural and anthropogenic sources mainly carbon dioxide, methane, nitrous oxide and chlorofluoro carbons (IPCC 2001:4)[1]. Anthropogenic causes are mainly from deforestation and fossil fuel uses.

Land-use change contributed to approximately 20% of global greenhouse gas (GHG) emissions during the period 1990–2000. Reducing emissions from deforestation and forest degradation, conserving and enhancing forest carbon stocks, and sustainably managing forests (REDD+) is a rising policy mechanism to reduce land use changes associated with GHG emissions in the developing world (Corbera and Schroeder 2011). REDD+ is an environmental policy to reduce GHG in the global South that gained momentum through negotiations under the United Nations Framework Convention on Climate Change (UNFCCC) in Bali 2007. From 2005 till now on UNFCCC conferences, REDD+ discussions have evolved to include various options[2].

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[1] http://www.ipcc.ch/pdf/climate-changes-2001/synthesis-syr/english/summary-policymakers.pdf; Accessed:04-06-2013

[2] "***RED***: *Reducing emissions from (gross) deforestation; only changes from 'forest' to 'non-forest' land cover types are included, and details depend very much on the operational definition of 'forest'.* ***REDD***: *RED and (forest) degradation, or the shifts to lower carbon stock densities within the forest; details depend very much on the operational definition of 'forest'.* ***REDD+***: *REDD and restocking within and towards 'forest' (as specified in the Bali Action Plan); in some versions REDD+ will also include peatlands, regardless of their forest status; details still depend on the operational definition of 'forest'* " (Van Noordwijk et al. 2009: pp 2)

Deforestation is defined by Bromley and Reis (Bromley and Reis 1999) as deliberate and permanent conversion of forest land to other non forest uses and it is high in the developing world. In some cases deforestation occurs because governments facilitate it in order to reduce hunger and earn foreign exchange for economic growth. The Government of Ghana through its Ministry of Food and Agriculture (MOFA) encourages expansion of agricultural production; expansion of farming is one of the drivers of deforestation in Ghana (Boafo 2013). Ghana's deforestation rate is around 65,000 hectare per year, which needs to be reduced if it is to contribute to reduction of GHG emissions.

REDD+ has become a voluntary mitigation mechanism that allows payment through carbon credit trade as a form of an incentive to encourage landowners to manage their land in the global South including Ghana to reduce deforestation rate through forest conservation (Houghton 2005). REDD+ is one of the offset mechanisms that has become well known in the global south. There are three different types of offsets namely; waste gas destruction, fossil fuel substitution/ reduced use, and biological sequestration of which the latter includes aforestation-reforestation and REDD+. Planting of trees through reforestation and aforestation will help reduce GHG emission into the atmosphere particularly CO_2 (Bumpus and Liverman 2010). REDD+ in Ghana has been accepted by the state and state actors, with non-state actors planning in various forms to reduce the negative effects of climate change by getting ready to implement REDD+.

A survey of IPCC (2007:15-17)[3], recognized deforestation in the developing world as a major cause of GHG emissions and gave an option for the developing countries to practice reforestation/aforestation to reduce GHG emissions. Developing countries' biodiversity, fauna and flora species are under threat and needs to give priority for conservation (Myers et al. 2000). Deforestation in the world annually in the 20th century was 16 million hectares as compared to 13 million hectares annually between the year 2000 to 2010 (FAO 2010). Deforestation is caused by human activities such as expanded agricultural production and natural causes including floods and fires. It seems deforestation level is reducing but still high in some countries.

Deforestation emits green house gases such as Carbon dioxide into the atmosphere that is affecting the climate globally. Anthropogenic CO_2 emission in the atmosphere contributes averagely 74% of total GHG emissions; within this percentage, 56.6% is from fossil fuel use while 17.3% is from deforestation (IPCC Report 2007:5). Fossil fuel use is high in the developed countries while deforestation is high in the developing countries. The percentage rate of deforestation in GHG emission is lower than Fossil fuel but the responsibility has been shifted to the developing world. This seems to reinforce the economic inequalities between countries.

Land Use Change (LUC) that is conversion of natural forest to agriculture land causes deforestation and contributes to the temperature changes by releasing Carbon dioxide into the atmosphere. In the years

[3] http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf ; Accessed: 04-06-2013

between 1750 and 2011, LUC mainly through deforestation released approximately 180 [100-260] PgC and the tropical regions deforestation rate released 1.1 [0.3 to 1.9] $PgCyr^{-1}$ in the whole periods of 2000 and 2009 (IPCC 2013). IPCC report (2013) gave hope that atmospheric temperatures might reduce with the new Representative Concentration Pathways (RCP) anthropogenic scenario analysed; RCP scenario has a bigger impact on near term climate projection than the scopes in long lived GHG mainly on regional scales and for hydrological cycle variables. LUC also causes wildlife habitat change and destruction and extinction to terrestrial species.

Tropical states and state actors are to play a vital role in REDD+ implementation. A state from Weber's definition is "a mandatory political organization with proceeding operations so far as its administrative staff successfully continue the claim to the monopoly of the legal use of coercive force in the implementation of its order" (Pierson 2011: 6). State has a goal of providing security, good and services for the people in the organization. States of Ghana has roles and responsibilities such as provision of food, security and raising finance for development and maintain political legitimacy as well. The country´s main economic activity is farming which serves as the main source of employment and food security in the country. Some cash crops like cocoa are also cultivated for export which increases the GDP of the country.

The government of Ghana under the Ministry of Food and Agriculture (MOFA) is responsible for overseeing food production and providing a food security system for the country. Expansion and land use for agricultural production is practised in Ghana. FAO [4] statistics showed evolution of land use from the year 1996 to 2011; The total land area in millions of hectare (m/ha) in the year 1996 showed 22.7 in total; within that,, arable land showed 3.20m/ha and forest cover was 6.64m/ha. However, in the year 2011, arable land had increased to 4.80m/ha and forest cover reduced to 4.82m/ha in Ghana. This trend shows how the expansion of agricultural activities in the country is driving deforestation.

The Government of Ghana (GoG) through its Forestry Commission has committed to reverse this situation in collaboration with other stakeholders, Non Governmental Organizations (NGO) such as International Union for Conservation of Nature (IUCN), who are engaging and planning Ghana's national strategy for REDD+ which instigated in 2007 in various pilot sites[5]. The REDD+ plan is intended to help reduce deforestation level in Ghana, produce forest and non-forest products for domestic and commercial needs, and trade carbon from the forest tree stand. The state plays a delicate role and takes decisions to fulfil its responsibilities by extracting resources for capital accumulation for development and protecting its political legitimacy (Fox, 1993), it seems that, decision taken by the state can results in environmental hazards for example turning forest land for farming cash crops, illegal timber logging etcetera.

[4] http://faostat.fao.org/site/666/default.aspx; Accessed: 02-11-2013
[5] http://www.fcghana.org/page.php?page=290&section=28&typ=1&subs=315; Accessed: 12-03-2013

REDD+ is another form of Payment of Environmental Services (PES) that seeks to reduce climate change and provide incentives for the developing countries. A PES is a voluntary accord among a seller and a buyer above well defined environmental service or land use that serves the same purpose of environmental services (Wunder 2007). PES instruments can progress environmental governance system and at the same time create over dependence on its payment, as win-win circumstances might lead to ineffective outcomes such as evidence on previous project of PES on integrated conservation and development projects (Muradian et al. 2013). Mainstream economists and other international stakeholders have developed REDD+ with the aim of achieving efficiency and effectiveness of emission trading (Dryzek 2005)

REDD+ could bring financial opportunities to Ghana's economy for development, reduce poverty and also reduce partly the negative impact of global climate change which the nation is experiencing now. However the rate of land use change in expansion of cocoa farming, illegal mining and timber logging is contradicting the satisfying conditions for human life and the environment. Whether the project's objectives are achieved or not will depend on the strategies that the government is developing.

Studies such as (Agrawal et al. 2011, Marfo et al. 2012) and reports suggested strategies to improve upon the existing forest governance structure in Ghana by reforming land tenure and benefit sharing systems, ownership of trees rights, and strengthening the institutional capacity to be supported by the government for a successful implementation of REDD. However different states that are involved in REDD+ projects may have different ways of strategising to implement REDD+ looking at the governance structures such as land and benefit sharing system. Vietnam's initial strategy for REDD+ involves strengthening ministerial coordination to improve institutional and forest governance, and Tanzania's involves improving their participatory approach to improve forest governance (Angelsen and Brockhaus 2009). To be able to reform these structures, mediation of apparent contradicting role of drivers of deforestation such as agriculture expansion and land use change for REDD+, participation by the local communities is included is to be paid attention to. Since the local communities live in and depend on forest, they seem to be the best people to manage forests and participate in REDD+. Most communities in Ghana are situated around forest areas and participate in management and conservation of forest resources. A World Bank report in the year 2002 assured that almost 1.6 billion people worldwide depend on forests and their resources for their livelihood. Forest covers almost one-third of the world's land area and these areas are occupied by indigenous and rural communities who have customary rights to the forest (Forest People 2012).

Community forest management entails combination of forest resources and the local community who owns and manages forest resources. Management of forest resource by the local communities can result in chances of higher regeneration of forest resources or affect regeneration of forest resources (Chhatre and Agrawal 2008). The recognition of the community's rights and power over forest resources by the authorities of the

state can give desired result of forest management; it can help result in good and sustainable management and increase economic and social benefits for the communities (Charnley and Poe 2007).

1.2 **Research Purpose and Questions**

This study investigates how the Government of Ghana (GoG) is planning to implement REDD+ projects. It will critically examine the government's objectives as well as its interaction with the communities in REDD+ pilot areas. This research accentuates the delicate role the government has to play in planning to reduce drivers of deforestation, including through agroforestry practices in cocoa landscapes in western region. From REDD+ pilot districts, this research investigates the prediction that few will benefit and others are going to lose from the project. It explores the powers in the government and non-government actors and their different roles in shaping REDD+. Finally, this research will observe the expectations of farmers who are involved in REDD + pilots.

The following questions are investigated during this study:

- How are State actors in Ghana planning to mediate the apparent competing objectives of forest protection for REDD+ and expansion of agricultural activities for human and economic development?

The following sub questions are asked to help as a guide to answer the main questions above:

1. How has the state planned to ensure an appropriate institutional environment for decentralising REDD+ from the national to local level after implementation?
2. How and to what extent does the state involve the participation of forest fringe communities around REDD+ projects?
3. How effective, efficient and collaborative are the government's plans so far?
4. What is the relationship between the current planned forest management system for REDD+ and the existing forest management system in the country?

The purpose of this study is to examine the contradictory role the state is planning to mediate in collaboration with the communities and other stakeholders in the implementing REDD+ project, in order to achieve REDD+ objectives whiles tackling agriculture expansion and other drivers of deforestation that are linked to objectives of human welfare and poverty alleviation. It has the following specific objectives: To assess the strategy the state plans to developed for REDD+ as to whether it will develop the needs of the people, address deforestation and degradation as well as protect the environment; Examine the roles and procedures the State has planned in implementing REDD+ projects in comprehensive decentralised system

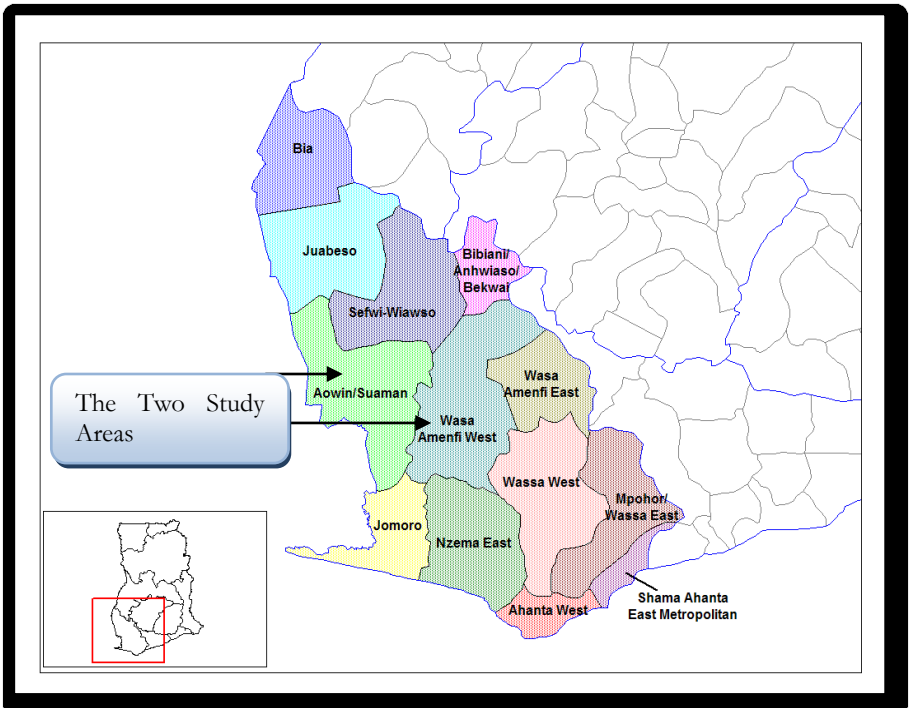
before and after implementation; Examine the extent of how the state involves the participation of forest fringe communities around REDD+ projects; Look at how effective, efficient and collaborative the government's plans are so far for the project and the level and the flow of information and knowledge of REDD+ within the participants of existing REDD+ projects.

1.3 **Methods and Methodology**

The study was conducted in the southern part of Ghana called western Region. Within this region, two districts with pilot sites were selected using purposeful random sampling and studied.

The first district is Wassa Amenfi west which has a total area 2354 square kilometres and has an estimated population increase of 186,257 and a growth rate of 3.2% yearly. Agricultural production is the main source of livelihood of the people and it employs about 75.6% of the population. The District Assembly Medium Term Development Plan (2006) indicates that, the district is one of the remaining high forest area in Ghana currently. The second district is Aowin Suaman which has a total area of 2,717 square kilometres. The vegetation of the district is rainforest type with a population growth rate of 4.7 percent, which exceeds the regional growth rate of 3.2 percent (Ghana Statistical Service 2000).

Map 1. 1 Map of Research Study Area



Source: Districts of Ghana[6]

[6] http://en.wikipedia.org/wiki/Districts_of_Ghana; Accessed: 13-06-2013

The key informant groups consist of the national managers of Forestry Commission (FC), district managers of Forest Service Division (FSD) and Ministry of Food and Agriculture (MOFA), a Non Governmental Organization (NGO) that is International Union for Conservation of Nature (IUCN), and Traditional Council. Seven (7) government officials, two (2) NGO officials and two (2) traditional council staff members were interviewed. The key informants have working experience in their various fields between 10 to 31years. The community chiefs and community members were also key informants with age group ranging between 25 to 70 years.

Qualitative method through semi structured interviews (one on one) were conducted with these key informant groups. Two communities were selected each in the two districts. Four chiefs in each study community were interviewed and 10 people each in the four communities adding up to forty people were interviewed for a period of 14 days starting from Monday 29th July to Monday 12 of August 2013. The selection of the people for the interview was also done randomly using purposeful random sampling method. The Chiefs and the some of the community respondents recommended other respondents I could interview. However, I did not limit my interviews only to the respondent recommended to me because I wanted to know more about what the community understand about the research topic. These scope of people were selected and interviewed because they are directly involve in the project and the study was to know the difference perspective each group of people have towards REDD+ project. In addition to the primary data collected, secondary data was also examined such as online documents, Government Publications and academic journals.

After data was collected from the various groups interviewed, the primary materials were line by line coded to identify emergent themes that run through the empirical materials to discover social processes. Afterwards, the materials were induced by mapping themes to social concepts to explain and synthesise the social processes by writing manually in research book. The themes were integrated and categorized to connect to the theoretical framework used: Political Ecology.

The challenge I faced was that my initial plan was to visit one district, that is Aowin Suaman, and I ended up adding up another district because I became inquisitive to know what was happening at nearby district. According to some government official in Aowin Suaman district, Wassa Amenfi West district was recommend as the active REDD+ pilot district, hence I visited this district which increased my sample size of interviewees in the communities. Again, the two paramount chiefs at the district level did not allow to be interviewed because of the fear that I could be one of disguise police officer who can arrest them because of current issues of illegal logging of timber activities they are involved said by one junior staff at the Traditional council in Aowin Suaman District.

1.4 Political Ecology Approach Theoretical framework

A political ecology lens can help us to understand how state officials neglect and marginalize local people's knowledge contribution to land use management and forest resources management. Political ecologists have shown how forest governance by government officials seldom recognises indigenous people's rights when allocating rights of resource use and land access (Peluso 1995). Environmental policy makers often neglect local land use and management strategies inherited form their ancestors thinking is a threat to deforestation; for example in Kissidougou in Guinea, this led to a wrong interpretation of their landscape, thinking the vegetation was relics of natural forest (Fairhead and Leach 1997). Hecht shows how the role of the state officials for setting policies in development projects can contribute to deforestation and environmental degradation, in a study in the Amazon basin where state subsidies for ranching resulted in rapid conversion of forest to agriculture lands (Hecht 1985).

This theory shifts our focus to think thoroughly about questions such as: What causes regional deforestation? And, who benefits from forest conservation and who loses? (Robbins 2011). Political ecology helps us to examine the costs and benefits that are politically linked with environmental problems and how they are distributed among actors in society (Bailey and Bryant 1997). These insights can help us to understand social and economic injustice issues and find alternate problem solving approaches. For this project, the relevant issue is deforestation problems in developing countries that emits green house gases into the atmosphere and changes the climate conditions.

Political ecology can help us to understand in detail what we meant by a particular environmental issue. It focuses our attention to analyse question on who decides to conserve and how? It is useful to understand who has a possible influence over decision making strategies for conservation of particular environmental problems (Blaikie and Brookfield 1987).

Political ecology provides a dialectical view of the connection between nature and society in which environmental problems can be approached in different ways (Walker 2005). This helps us to look at different ways to solve environmental problems and not relying only on one or few dominant solutions. Political ecology examines political dynamics that enfolds material and discursive resistance over the environment in the third world (Bryant 1998). Bryant 1989 confirms how state elites try to justify use of the environmental resources by production of knowledge such as scientific forestry, to sustain timber harvesting of economic trees.

Political ecology facilitates understanding of the complex relationship between nature and society through careful analysis of social forms of access and control of environmental resources (Watts and Peet 2004)., Institutions such as property right and the rule of law are essential for creation of human made assets, and inclusiveness forms a basis of better governance (Robbins 2004). Haan and Zoomers (2005) explain the problem of access to livelihood which is governed by social relations, institutions and organization, and the relationship between access and decision making

(De Haan and Zoomers 2005). This shows how social forms of access and control over resources are critically looked at through careful analysis and comes out with possible solutions to address environmental problems in state and societies that involve inclusiveness in usage and control of environmental resources.

Political ecology explains the complexity in scientific and technical aspects of forest carbon offsets and poses a challenge on how to manage and reduce carbon. A case study of Noel kempff climate action project in Bolivia confronted challenge on carbon offsets and were trying to see how they can address such challenge including permanence, carbon monitoring and verification (Brown et al. 2000). Also Bumpus and Liverman (2008) verified how governance structures of carbon offsets in regulations are complex in chains that connect consumers and reducers of carbon, and poses a challenge for carbon reduction and the ability to reduce carbon (Bumpus and Man 2008). These complexities show how at a certain point environmental governance can be captured by state elites such as the scientists and lawyers.

Political ecology further aids us to identify the relations of power that exist between and within social groups. Political ecology help to strengthen human's ability to challenge dialectical process and dominant interpretation through which human opposes and influence environmental resources around the world (Paulson et al. 2003:1). Certifications of environmental governance such as forest certification can re-enforce power relations between the poor and the powerful such as the commercial and small forest management system because of the cost involved, and challenges on the idea that markets can enhance environmental and social management to forest (Klooster 2005). Thus political ecology help us analyse institutions of environmental governance and look at human practices that contradict environmental goals and help to influence in the process of strategising to resolve environmental problems in the societies.

In all, a political ecology lens helps us to analyse environmental problems critically, challenge dominant knowledge, examine power relations, complexities, access and control over resources that exist within and between societies, and come with potential alternate problem solving solutions for the environment. With the issues raised in Political ecology review above, political ecology is used in this research because; the research problems shares the power relations that exist between and within societies, complex relation that exist between nature and society and the complexity in scientific and technical aspect of forest carbon offset.

1.5 Overview of Chapters

This paper is organized into five chapters. Chapter 2 introduces the main state actors in Ghana relevant for REDD+ and reviews the historical trends in forest policies for forest management. Chapter 3 draws on interviews with government officials to explore how they are planning to

implement and manage REDD+ in the country. Chapter 4 draws on interviews with the community members and chiefs to discover the knowledge of REDD+, their relationship with the forest around them and how they perceive REDD+ in their lives. Chapter 5 concludes by revisiting the research hypothesis and suggesting three gaps for further studies.

Chapter 2 State Actors and REDD+ Governance in Ghana

This chapter introduces the main state actors in Ghana relevant in REDD+ project and reviews historical trends in forest policy that may need thorough analysis and come out with help alternate strategies to implement and manage REDD+ to meet its objectives in the country. The chapter also introduces the concept of state and the important role it plays with state actors for environmental projects, growth and development.

2.1 The state and the state actors

The state plays a vital role in the implementation environmental projects and is playing a role of REDD+ to be implemented in Ghana. The success of the project lies basically in the governing and non-governing bodies of the state that are strategising to implement and manage REDD+ programme. A state is "*a set of political tools that is separate from the ruler and the ruled, with the ultimate authority over a defined area supported and maintained by a dominance of coercive power"* (Leftwich 2008: 214). The state has public institutions such as the government and legislature, the civil service and the court. These institutions play a prominent role in the process and decision making of project like REDD+ which is going to be implemented in Ghana.

There are some key features of the state that are often reflected on: The state is sovereign and exercises implicit and un exclusive power, state is recognize as public in creating and implementing corporate decisions, state exercise legitimation, act as instrument of control and as a territorial association(Heywood 2002). Different states act differently with the features mentioned above. Each state in the global south implementing REDD+ may have different strategies according to how it functions and its historical background. Ghana is a democratic state and a developing country. An environmental policy like REDD+ may be implemented with sceptic of how it is going to succeed or fail. The government have created room for interaction for various REDD+ relevant stakeholders such as NGO's, research institutions and local communities by forming a committee for REDD+. The Forestry Commission (FC) is the key government implementing agent for REDD+, and the committee is to coordinate and oversee implementation of REDD+ project. There may be exercise of power over strategies and contradiction of views between and within state actors and non state actors or effective collaboration between or within state and non state actors that could result in failure or success or REDD+ in the country.

The state comprises of state actors who plays an important role in planning and management of state affairs and programmes. State actors are class of authorities whose actions are directed either toward themselves or toward others in political order (Fox 1993). State actors exercise authority and sometimes state organizations act in different directions of interest and battle to control the state agency and decide its goal and how to pursue

them. This implies that State actors may plays roles to achieve common interest but sometimes their roles conflict and they struggle to align their interest in the same line to achieve stated goal of the country. States also play a contradictory role by accumulating capital for economic development and maintaining peace, order and welfare in a country, both economic growth and investment in welfare and social provision are most effective for the reduction of poverty (Leftwich 2008). The state can attain this if it is capable of giving institutions that do not aim only for economic growth but for inclusive and participation of its citizens and provision of policies to sustain its legitimacy.

Jonathan Fox (1993) again states that, both state and society centred approach in reform has its own limitations and strength, the best way is to focus on effective interaction between the state and society for balancing its limitation and growth. Fox stated an example of distributive food reform policy in Mexico, which builds state and non-state actors together in a similar reinforcing direction. State and society interaction may help shape policies that will benefit both the powerful and the poor. On the contrary, Borras (2007) article on "*Pro-Poor Land Reform: a Critique*" stated of how state and civil society interaction concept of land reform flawed in Philippines because Philippines government failed to deliver the aim of land redistribution reform for equity in land holdings for economic and human development (Borras 2007: 1-5).

Further, state can exercise its powers over the use of natural resources and exclude the participation civil society organizations which pose a challenge in environmental governance. For example, a case study in Ecuador Yasuni ITT initiative demonstrates how powers of state and its centrality for social development in natural resources management. The tension on environmental conservation marginalised the participation of civil societies which is intensifying conflict over the role of nature in the state development (Arsel and Angel 2012).

The discussion above shows both the negative and positive outcome of state society interaction. State and society interaction may create the tendency of shifting power to one side that reinforces inequality by favouring the powerful and hence, the interaction of IUCN and the FC may bring success in improving forest governance and livelihood of forest communities or may not that creates sceptic in the failure or success of REDD+ in Ghana. Further , state tend to play an important role that may shift interest to one side according to its objectives, either accumulating capital at the expense of provision of security or vice versa. Critical analysis is therefore needed to strategize policies for REDD+ governance to maintain the balance of struggles for equity.

2.2 Forestry Commission as the focal state actors for REDD+

The Forestry commission under the Ministry of Lands and Natural Resources (MLNR) are the key implementing state actors of REDD+. Forestry Commission was founded in 1999 and it is responsible for forest and wildlife management, development and protection. It is also responsible for executing and ensuring operational agencies coordination (Damenu

2010). FC of Ghana is in charge for the regulation, utilization, conservation and management of forest and wildlife resources and coordinate policies related to forest and wildlife resources[7]. Therefore, FC is going to play important role in REDD+ in Ghana by regulating and coordinating policies for REDD+ management.

2.21 Brief History of the forestry sector in Ghana

Ghana's Forestry sector comprises of government and private entities who are involved in administration and utilization of forest and wildlife resources (Gyimah and Dadebo 2010). The key government agencies are Ministry of Lands and Natural Resources (MLNR) which consist of Forestry Commission (FC). FC comprises of three main division and resource management sector: Forestry Services Division (FSD), Wildlife Division (WD), and Timber and Industry Development Division (TIDD). MLNR is responsible for policy direction and monitoring of sector programs towards attainment of the national goal. FSD manages and protects forest estates, WD protects and manages wildlife and protected areas and TIDD is responsible for regulating timber product standard in the industry and marketing intelligence and promotion of improved timber industrial processing.

2.22 FC and Relevant Stakeholders in REDD+ project in Ghana

Forestry Commission is coordinating with other stakeholders relevant for REDD+. These stakeholders include government officials such as Ministry of Food and Agriculture (MOFA), Environmental Protection Agency (EPA): private companies and nongovernmental organizations. These stakeholders are interacting with FC to meet its stated objectives including protection, management and regulation of forest/wildlife resources in Ghana. This research focuses more on MOFA, nongovernmental organization such as the International Union for Conservation of Nature (IUCN) and the forest fringe communities relevant for REDD+.

The Ministry of Food and Agriculture (MOFA) is one of the FC's main collaborators in designing and management of REDD+ for implementation. MOFA's mission in Ghana is "*to promote sustainable agricultural activities and flourishing agribusiness through effective extension services and research technologies*" (MOFA)[8]. MOFA is one of the key actors because MOFA have a formal role in farming practices in meeting the objective of REDD+. Although agriculture production is important to Ghana's economy for the supply of food and contributes greater than twenty five percent of the country's GDP (USAID 2011), agricultural activities are one of the key frontiers of deforestation in the country. How sustainable will it be with the increase of forest cover in the country?

[7] http://www.fcghana.org/page.php?page=46&section=22&typ=1; Accessed:03-09-2013

[8] http://mofa.gov.gh/site/ ; Accessed: 18-10-2013

2.3 The State Actors for the Concept of Plus in REDD

The state and non state actors of Ghana are playing different roles such as the FC and IUCN to meet the concept of Plus in REDD project which is conserving and enhancement and sustainable management of forest.

Sustainable forest and agricultural management for development is currently an ongoing concept that is used in many parts of the world. Sustainability came out as concept to react to human actions that affects the environment. It gives opportunity for the management of ecological resources such as forest for continues use by present and future humans known as sustainable development (Lele 1991).

Sustainable development (SD) has so many discourses and has been taken up by organizations that work with the environment. Different environmental policies may work in different places according to its objectives or idea behind it such as neoliberal, needs and rights (Redclift 2005). The Brundtland Commission in the twentieth century defines SD as the capacity of the future age group to meet their own needs through development that do find middle ground between the present and future generation (Brundtland Commission 1987). Sustainable development has gained a popular ground in development plans and has gain a ground in neoliberal answer to environmental and social struggle. The Neoliberal idea on sustainable management allows extraction of resources and replacing the resources in a form of protection or conservation. However, the idea of neoliberals of *'taking and making'* is likely to benefit the rich and disposes the poor off their land and resources used to improve their livelihood through farming (Moore 2010). Hence the idea of the neoliberals may create the tendency of not reaching the objective of concept of livelihood. Livelihood refers to the means of gaining a living along with livelihood capabilities, equity, tangible assets including resources and intangible assets such as claim and access and activities required to execute these actions (Chambers and Conway 1992).

REDD+ is to increase knowledge and give technical support and good governance for sustainable forest management (Nasi et al. 2011). It seems state actors has a role to intensify education of REDD+, the state officials are doing education currently in the project districts with non state actors of REDD+. Again the plus emphasis enhancement of carbon stocks that produces better management and generates benefits with increased availability of forest resources including biodiversity, although some environmentalists oppose carbon markets (Angelsen et al. 2012). The enhancement of carbon and at the same time creating value on carbon may create the tendency of not achieving all at the same time.

Putting value on nature as a form of reducing or repairing environmental change may re enforce injustice and inequality, it may also deprive people of good and right to food system (Fairhead et al. 2012). REDD plus seeks to reduce GHG and improve livelihood of the poor. In order to achieve REDD+ objectives, the state actors FC and others such as MOFA and EPA and non state actors are planning to improve upon the existing forest management policies for effective implementation of REDD+ with collaboration of the communities.

2.4 The forest laws and policies in Ghana

Forest policies, legislations and laws have been regulated to improve upon utilization, management and conservation of forest and wildlife resources to meet FC objectives since nineteenth century. Forest laws and regulations were also intended to maintain favourable conditions for promotion of agricultural production as summarized in Table 2.1.

Table 2.1: Forest Laws and Regulations from the year 1948-2002

No	Year	Forest Policies and Legislation (FPL)	FPL Foremost Objectives
1.	1948	Forest Policy	▸ Creation of permanent forest estates ▸ Protection of forest ▸ Protection of water catchment area ▸ Environmental protection for ecological balance
2.	1951	Forest Ordinance	▸ Protection of forest ▸ Protection of forest reserves
3.	1960	Forest Improvement Act	▸ Forest plantation development ▸ Timber plantation establishment and development
4.	1961	Wild Animal Preservation Act	▸ Conservation of wildlife
5.	1974	Wildlife Reserves and Conservation Policy	▸ Protection of wildlife resource ▸ Species Conservation ▸ Wildlife conservation areas ▸ Protected areas development
		Forest Protection Decree	▸ Define forest offences ▸ Forest protection
		Trees and Timber Decree	▸ Logging guidelines for timber industry ▸ Sanctions for non compliance with the guidelines ▸ Promotion of export of processed timber
6.	1983	Trees and Timber Regulations	▸ Regulation of felling of trees ▸ Forest Plantation ▸ Regulation of logging activities
7.	1986	Forest Protection Law(Amendment)	▸ Define forest offenses and penalties ▸ Forest protection ▸ Protection of water bodies ▸ Species conservation
8.	1994	Forest and Wildlife Policy	▸ Protection of forest ▸ Species conservation ▸ Regulation of timber harvesting ▸ Development of cottage and agro-based industry ▸ Community forestry and forest conservation ▸ Deregulation and streaming of bureaucratic controls on wood export marketing ▸ Involvement of community in conservation of forest and wildlife resources ▸ Rehabilitation and development of degraded forests
9.	1997	Timber Resource Management Act	▸ Timber utilization contract ▸ Offenses for illegal logging ▸ Protection of logging on farms and plantation
10.	2002	Forest Protection Amendment Act	▸ Community forest and forest conservation ▸ Protect forest and wildlife ▸ Reforestation and aforestation programmes ▸ Forest offences and penalties ▸ Protection of water catchment areas
11.	2002	Timber Resource Management Amendment Act	▸ Timber utilization contract ▸ Offences for illegal logging ▸ Protection of logging on farms and plantations ▸ Community forestry and forest conservation ▸ Protect land with farms from logging ▸ Protect forest private plantation ▸ Duration of timber concession rights

Source: (Ahenkan and Boon 2010)

Forest policies have kept on improving year by year to protect forest resources for present and future development. From 1948-1973, there was no inclusion and participatory forest management system till in the year 1974. During the colonial time in the early nineteenth century, 'natives' of the nation had rights to forest resource equal to the colonial rulers but later on, these rights were taken due to competing use of forest resources that existed between them (Buell 1928). From 1974, forest policies were amended for the inclusion and participation of the local communities for equal distribution of benefits and in a design and decision making (Ayine 2008).

The state actors are using the existing forest management as a baseline to deduce policies that will help REDD+ in the country. A Forestry official mentioned that " *REDD+ policies are likely to be related to the existing forest management policies because REDD+ is seen as added mechanism of environmental policies in the nation and REDD+ policies are going to fit in the national forestry management agenda*". Existing policies do not necessarily favour or help the poor improve upon their livelihood despite the discourses of decentralization and recognition of the local people (Larson and Ribot 2007). The policies' design does not necessarily favour the poor because of the economic condition and different social class and relations of the local people in forest fringe communities.

Local people around forest reserves welfare remains constant and worsening meanwhile, deforestation is going on and it is attributed to the fact that the local people have insufficient access to forest resources, limited to decision making and injustice in conflict and distribution of benefit and incentives on the part of the local people (Colfer and Byron 2001) .

The above discussion highlights the point that, the existing policies of Forest and wildlife governance needs to be reviewed for REDD+ governance. State and non state actors are working together to review and strengthen REDD+ policies. The review of REDD+ may help to improve the livelihood of the people and sustain forest management, though enhancing livelihood is not the only objective of REDD+.

2.5 Gaps in Forest Resource Management and Challenge to REDD+ in Ghana

There were some gaps identifies by the FC on forest resources management that challenges forestry governance in Ghana and can also pose a challenge to REDD+ governance in Ghana if necessary steps are not taken to review these gaps.

In Ghana there are initiatives designed to effectively involve local and international partnership and investment to support stakeholders' ability to improve forest livelihood and ecosystem services. These initiatives were design by the GoG through FC because some gaps were identified in forest resource management including weak existing forest agencies and community forest management programme that is not working such as CREMA (Gyimah and Dadieso 2010). Again, The FC identified drivers of deforestation that can be looked at to resolve deforestation problems to enhance forest governance problems for REDD+.

Ghana readiness proposal (2010) for REDD+ explains the main drivers of deforestation in the country and grouped them into four causes. *First*, policy drivers are the gap in forest policy such as weak enforcement of forest regulations and weak motivation for timber industry. The *second* cause is demographic changes such as population growth and urban expansion and limited technology development in farming system. *Thirdly*, economic forces also drive deforestation including high international prices for primary products such as wood, minerals and low local purchasing power within agricultural economy. The *fourth* driver of deforestation is natural causes including flood, wind and natural fire.

The REDD+ committees instigated consultations to identify the above drivers of deforestation and are in the process of dialogues to come out with good strategies to help improve upon the governance of REDD+ in the country including mitigating apparent tension between expansion and low technology in food production which result in deforestation and REDD+ which is to sustainably improve forest cover.

2.6 State Actors Facilitating Agroforestry Practices to Reduce GHG Emissions in Ghana

The state actors are facilitating programme that are to encourage agricultural expansion and increase forest cover in the same piece of land through multiple land use management.

There is an increasing demand for food year by year as the population grows on planet. Future food demand is projected to increase by 50 percent by the year 2050 in response to growing level of consumption and increasing population (DeFries and Rosenzweig 2010). Ghana's population is increasing year by year. (Ghana 2012) shows that, there has been an increase in Ghana population from approximately 18,912,000 to 24,658,000 in the year 2000 to 2010 respectively. Agricultural production is an active frontier of deforestation and future production is suggested to increase to 80 percent from agricultural intensification. The focus here bring our attention to the question: *How are state actors planning to mediate the apparent competing objective of land use change for REDD+ and expansion of agriculture with the communities in Ghan*a? Agricultural expansion drives deforestation and REDD+ aims to conserve forest cover.

Agricultural production and expansion is a key deforestation frontier and combining REDD+ to reduce GHG emission and improve livelihood may create the tendency of giving opportunity for synergies in tropical landscapes. However, the creation of the opportunities may depend on the policies on agricultural and forestry management system that will be enforced for success in REDD+ programme and production of food to feed the increasing population. Again the GoG is encouraging scientific research to be conducted to make better choices of food crops and tree species that inter connect for the reduction in deforestation and provision of food security such as Cocoa Research Institute of Ghana (CRIG).

The government of Ghana has plans to encourage farmers to expand agricultural activities and inter plant trees in farm (agro forestry) practices:

multiple land use system. Though most researchers esteem agro forestry as a carbon reproduction which has the assurance in sustainable crop and trees production and maintaining biodiversity; however, most farmers prefer sun loving farming and those who are into agro forestry have different feelings of this system, which can impede the implementation and sustainable management of REDD+ project (Ruf 2011).

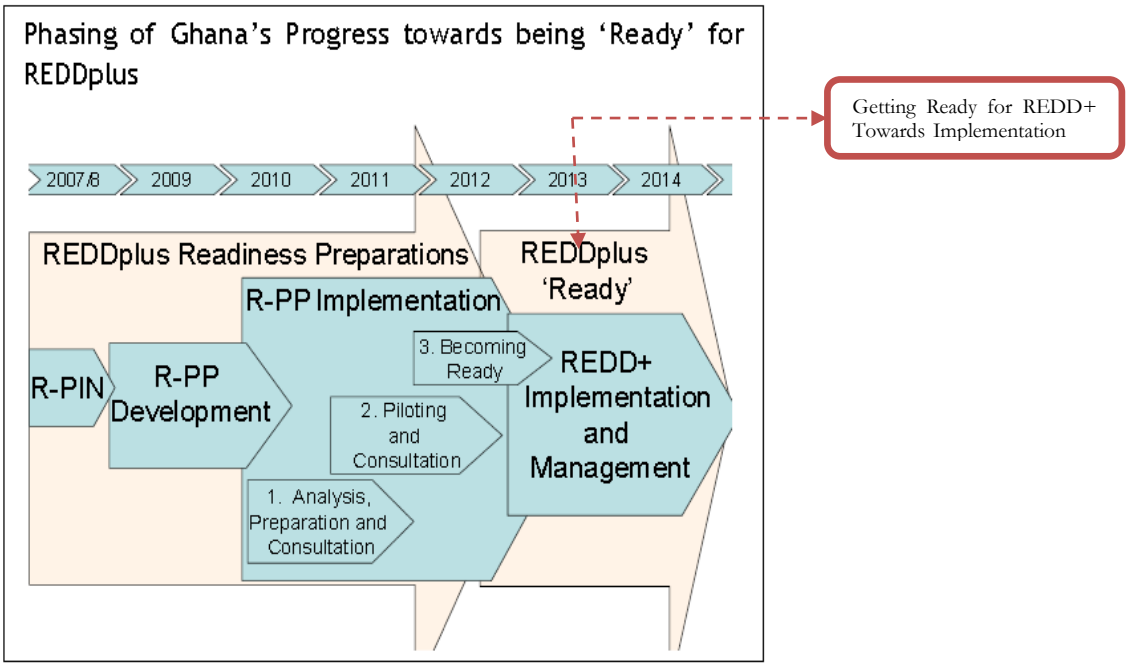
The GoG developed REDD+ pilots to help in full implementation of REDD+ successfully. Five regions of Ghana are involved namely Brong Ahafo Region, Ashanti Region, Eastern Region, Western Region and Central Region. These are discussed further in the next chapter.

Chapter 3 Insight from Government and Planning Activities for REDD+ Project in Ghana

This chapter draws on interviews with the government officials to explore their perspective on REDD+ and the activities they are undertaking to get ready for the implementation of REDD+. The chapter also shows how IUCN is working along with FC and the forest dependent communities to improve environmental governance and livelihood of the communities.

The government of Ghana is preparing and getting ready with other stakeholders for implementation of REDD+ in 2014. The readiness towards REDD+ project is in two phases. The first one entails the development and submission of Readiness Plan Idea Note (R-PIN) in 2007, development of institutional structures in 2009 and other preparation for implementation in 2010-2013. The second phase entails implementation and management. IUCN and CRIG are REDD+ proponents working with the government in the research districts. The country is still in the first phase and getting ready for the full implementation and management level (Figure 3.1).

Figure 3.1 Phasing of Ghana's Progress towards being 'Ready' for REDD+



Source: Ghana R-PP (2010)

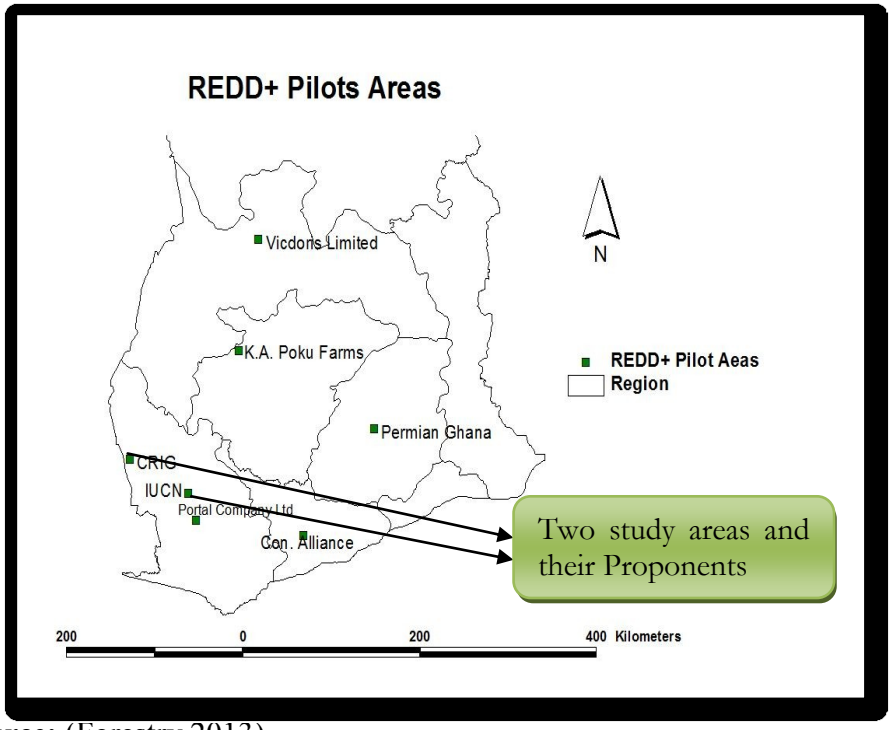
3.1 Activities of REDD+ in the Two Study Districts

There are some activities in the country by the government and relevant stakeholders of REDD+ to get ready for the implementation of REDD+ programme successfully. GoG is preparing and taking the lessons learnt

from REDD+ pilot sites and analysing experiences from officials from government and community members. GoG is analysing cases that came out from the various consultations made by the Steering committees including identification of drivers of deforestation; to revise some existing forest management policies in Ghana for REDD+.

Seven (7) development pilot project areas in five regions of Ghana are selected for the implementation of REDD+ programme mentioned by an FC official. The seven pilot areas are shown below (Map 3.1).

Map 3.1: Map of Ghana showing REDD+ pilot project areas and its proponents



Source: (Forestry 2013)

The seven pilot projects are coordinated by private companies, organizations and NGOs who are working in collaboration with GoG; within the seven sites, five are off reserve and two in the forest reserve. Within these seven pilot projects, two were selected and studied because they were the initial areas to start the pilots and were recommended by one government official in FC. The two areas are namely Cocoa Research Institute of Ghana (CRIG) and International Union for Conservation of Nature (IUCN) all in collaboration with FC and the community shown below;

Table 3.1 Two study areas and their proponents

PROPONENT	PROJECT	LOCATION/REGION
CRIG	Managing the cocoa production landscape for increase in forest carbon stocks and biodiversity conservation	Aowin Suaman (Enchi) in the Western Region

IUCN	Pro-poor project	Wassa Amenfi West (Asankragwa) in the Western Region

The Government is getting prepared to move into the second phase that is REDD+ implementation and management. The REDD+ Steering committee members are in the process of developing strategies chaired by the deputy MLNR for successful implementation of REDD+ in the year 2014.

In the pilot project areas, awareness creation has been raised for the communities to understand what REDD+ is about by the government/non government officials, negotiation is going on between the communities and the government official on how the benefit sharing system is to be done. Capacity building to increase knowledge of the project is going on for the stakeholders directly involved with REDD+. The communities in the study area interviewed, 70% are practising agro forestry system and the rest are to start with knowledge and technical support from FSD and IUCN.

The main activities are therefore sensitization of the district officials and forest fringe communities to build their knowledge and encouraging the communities to practice agroforestry, to conserve and protect forest resources. The sensitization is carried out with the technical and physical support from the state and non state official in the two study districts and pilots.

3.2 Proponents of REDD+ in the Two Study Districts

These proponents of REDD+ in the study site consist of the IUCN and Cocoa Research Institute of Ghana (CRIG) and they are suppose to support and improve upon the agricultural and forest governance system for food security and improve forest cover in the country.

These proponents are also working to support the local people in the communities to improve their livelihood that suits the objectives of REDD+. Moreover, CIFOR (2012) report on REDD+ came out with general issues that, attention should paid to and improved upon: the regulation system that drives deforestation, biodiversity, and strengthening the institutional capacity, and making accountability and transparency more visible. CIFOR suggested intervention at the international level to support REDD+ especially on the monitoring and measurement of carbon credit since the payment is going to be based on the first and second phases of REDD+ known as the readiness phase and the policy reform phase.

CRIG is in collaboration with mainly FSD and MOFA in working on the main ongoing activity which is Sensitization of REDD+ in Aowin Suaman district. CRIG is a division of Ghana cocoa board and has a mission to investigate problems associated with mainly cocoa and other crops and introduce measures to curb the problems[9]. Some of its research policy

[9] http://worldcocoafoundation.org/wp-content/files_mf/plantingmaterialall.pdf; Accessed: 10-10-2013

includes increasing productivity, facilitation of environmental sustainability and adaptation of farming practices to climate change.

One Forestry Service Division officer in Aowin Suaman district mentioned that the programme of REDD+ in this district is slow and has some challenges such as inadequate funding to enable the organization of logistics and transportation to reach most of the communities. This implies that there is a problem of flow of project funds from the national level to some of the pilot sites at the district level. Government officials at MOFA in the two districts mentioned that since the beginning of the year 2013 as at August, there had not been any release of funds for extension activities and other official activities that are supposed to be done to support REDD+. Further, a MOFA official in Aowin Suaman said that he has just heard of REDD+ project, however it seems that these challenges are going to be some of the challenges that may hinder the implementation of the project.

IUCN is one of the proponents of REDD+ two district research sites in Wassa Amenfi West district. IUCN is an international NGO who aim to assist the world in finding realistic solutions to most of the serious environmental problems[10]. IUCN is in collaboration with mainly FSD under FC and MOFA to prepare good grounds for the implementation of REDD+. IUCN in collaboration with FC and MOFA are organizing sensitization of the project and training of farmers on livelihood and landscape strategy as well as sustainable tree planting and farming- pro poor project.

The project is quite active in this district because they are working with Community Resource Management Area (CREMA) members who have embraced REDD+ and have started practising it by planting their own Private plantations and inter planting trees in their cocoa farms. The CREMA members consist of farmers in the project districts who have regular meetings with IUCN on REDD+ and the communities acknowledge to some extent the support and engagement with state and non-state officials to discuss issues on REDD+ programme and the way forward. Government officials from MOFA also financial challenge as discussed in the CRIG district and look forward for these challenge to be resolve to help in the REDD+ activities.

The Forestry Services Division are also playing other specific roles in both district communities such as official registration of community members involved in REDD+ ensuring their tree ownership right and giving technical supports in the region. A count of 5 trees in the farms or more qualifies to be registered and use that evident to claim tree ownership. This is to assure farmers tree rights to gain benefits. Seedlings are also raised and supplied to farmers to purchase and plant, assist farmers in any technical problems that may arise.

Proponents of REDD+ in the study areas therefore interact and appear to cooperate with each other to provide the necessary support for REDD+. Though some of the proponents face financial and logistics challenges and are not delivering the best in terms of sensitization of REDD+ in Aowin Suaman district. The proponents in Aowin Suaman district are solely

[10] http://www.iucn.org/ ; Accessed: 15-10-2013

government officials. World Bank (2003) mentioned that, national actors are better placed to organize the provision of public goods, takes care of economies of scale. The study shows improvement in better delivery of sensitization on knowledge of REDD+ by the coordination of government and nongovernmental organization. Hence state actors must find a delicate balance between maintaining authority and giving other actors at the lower level freedom to operate their critical functions.

3.3 REDD+ stakeholders planning for Sustainable Management of REDD+ Program in Ghana

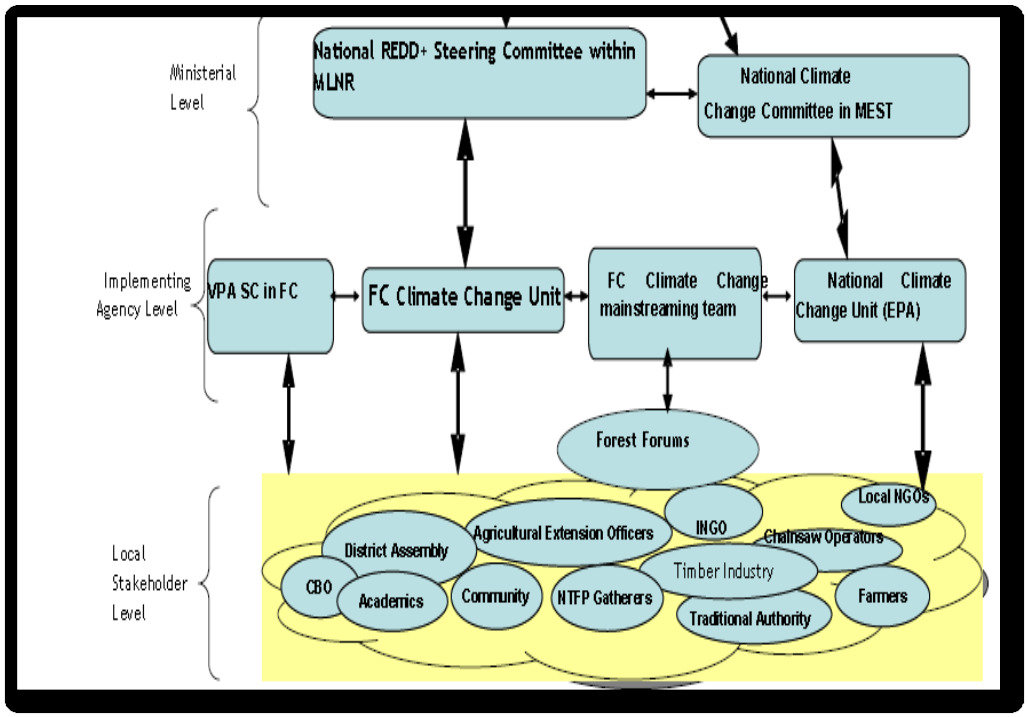
REDD+ relevant stakeholders are planning to improve upon the existing forest governance to implement REDD+ in Ghana. Government officials from FSD reported that they are still battling with enforcement of the forestry management system especially in the natural forest reserves and forest plantation to reduce deforestation. There are existing environmental mechanisms in the country such as Natural resources and Environmental Governance programme (NREG) with expectations including reducing illegal logging and improvement of forest and mining government revenue system[11]. NREG was developed to improve forest governance and increase forest cover in the nation for sustainable forest management in Ghana. NREG was implemented in the year 2008 with a project span of five years under the leadership of GoG and five partners including the European Commission and the Royal Netherland Government.

The GoG sees REDD+ as an added mechanism for sustainable forest management, this was confirmed by one FC official in Accra, stating that "*the management system of REDD+ will use mostly some of these existing forest management system*". There should be a critical analysis of these existing systems which is likely to pose a challenge to REDD+ program. REDD+ may not reduce deforestation but deepens deforestation if decision making process do not involve all persons directly involve in forestry management especially those at the community level.

Planning of strategies to revise and develop new policies in land tenure, benefit sharing, strengthening of institutional capacities is ongoing with the steering committee members. The steering committee comprises of representatives of government ministries, Agencies, NGO's, research institutions, private companies and communities. These committee members were formed with an objective to bring together both state and non state actors across forestry and environmental management to coordinate and oversee the implementation of REDD+. The committee members are shown in a figure below:

[11] http://www.fcghana.org/page.php?page=303&section=28&typ=1 Accessed:23-10-2013

Figure 3.2: REDD+ Steering Committee Members in Ghana



Source: Ghana R-PP (2010)

The steering committee members tend to have power between and within themselves and at a certain point may exercise these powers over others; which may create the tendency of not involving members at the lower level to participate fully at this phase of the REDD+ in the nation. However, the design for environmental policies such as REDD+ cannot be depoliticized and emphasis should be given to the process of policy design (Muradian et al. 2013). Likewise, Traditional chiefs play an important role in the use of land for REDD+. The paramount chiefs at the traditional council are also relevant in decision making process because they have authority over stool land in the district and receive 20% of revenue from resources from the land (Ghana Copyright Act 1996). However, within and between the chiefs, it seems the paramount chiefs are more powerful than the sub chiefs especially in the community level, decision between them on how to use land can be a challenge to REDD+ project.

An interview at the traditional council in Aowin Suaman district confirms how the paramount chiefs can influence decisions on environmental projects for their own benefit; the paramount chief did not open up for the interview and a representative explained the reason why the paramount did not allowed to be interview stating that, they are suspected to be involved in illegal logging of timbers within their stool land and fears to be arrested[12]. Therefore the chiefs can exercise power over the use of land which may deepen deforestation and pose a challenge to REDD+ project. Further, a cocoa farmer in Aowin Suaman district mentioned how the community members conserve trees in their farms and the trees are captured

[12] A representative from Aowin Suaman District Traditional Council (02-08-2013)

by government official to timber contractors[13]. Participants of REDD+ project should be given the necessary support to participate in REDD+ decision making process for forming policies. This can be done by building their capacity and empowering local people to exercise their agency and claim their right for REDD+. This can be done by comprehensive intense training and education of REDD+ at the community level to facilitate participation in to be able to deal with socio environmental problem that may come up.

The discussion above brought to surface the possible power relations that may come out which may be detrimental to REDD+ governance between state and non state actors. The state official may exercise power over non state actors in the process of the policy decision making and this will deepen inequality in particular to benefit sharing of REDD+ program in Ghana.

3.31 IUCN for Shaping Environmental Governance for REDD+ In Ghana

IUCN has an area office in Ghana and collaborates with FC on REDD+ project. It continues to facilitate formulation of policies for REDD+ governance with FC; with core interest in improving livelihood of the people in the community. An official of IUCN-Ghana shared that, the 'REDD+ Pro-Poor' is the current running project in this regards. The project aims to bridge environment and social issues in the state together including enhancing knowledge and communication of REDD+ in the REDD+ communities for good governance of REDD+ in Ghana. Further, An IUCN official in Accra affirms their partnerships and role by saying "IUCN *has been in partnership with FC and other local NGO's and communities in influencing consultations, participation and giving technical assistance for REDD+ programme within the partners*"[14]. IUCN is working with FSD in Wassa Amenfi West District with an ongoing education of REDD+ project and its benefit.

3.32 Pro-Poor REDD+ (PPR) Project by IUCN in Ghana

IUCN is working along with local partners including FC, Tropenbos international, forest fringe communities and district assemblies and facilitating to progress the participation and involvement of forest dependent communities (FDCs) of REDD+ activities in the nation. In general REDD+ activities are very slow and undulating and the organization is working to stabilize the situation in progress said by an official of IUCN.

IUCN is working towards bringing components of REDD+ together such as the environmental and social issues together. There are three components that support REDD+ implementation: Developing synergies between pro-poor REDD mechanism and good governance; Linking the local and the national level stakeholders and processes for REDD; Enhancing knowledge and communication for building and implementing REDD (IUCN 2013). IUCN is doing this by sensitization of REDD+ to increase knowledge and

[13] A Cocoa Farmer in Wassa Amenfi West District (10 August,2013)
[14] IUCN Official in Accra Interviewed (11-08-2013)

capabilities[15] of the forest fringe communities and has also introduce livelihood and landscape strategies in the communities to improve their livelihood with FC, including agroforestry practices, fish farming and snail rearing .

3.4 Knowledge and decision making within and between stakeholders of REDD+

State and non state actors are participating to provide new and improve upon existing forest governance for REDD+. The government is using a bottom-up approach to gather ideas from the communities on how especially the incentives of REDD+ are going to be shared between and among members in a better way. A representative from FC stated that, the communities' contribution on how the benefit is going to be shared will be finalized by the government officials. Again the technical aspect of REDD+ seems to be complicated and may involve the state elites than the communities. Moreover, national environmental policies can exclude the citizens and are usually captured by some state officials like the scientists and the lawyers who impede effective participation in decision making and management of projects (Bromley 2007). Decisions can be captured by powerful traditional authorities as well and exclude participation of the less powerful in society including the forest people at the community level. Further, REDD+ may undermine decentralization in information flow because of the funding involved for REDD+ activities. This is because reliable and continuous sources of funding will turn on the state actors to centralized REDD+ governance at the expense of the local communities (Phelps et al. 2010). An example in Indonesia by Phelps et al 2010 shows that centralised governments assert control over resources when it comes to conservation and ecosystem services, with funds availability and justify recentralization by portraying themselves to be more capable and reliable than local communities. Therefore REDD+ mechanisms are to be investigated or researched well to reverse the potential of recentralization with the fund to be used for REDD+.

State and non state actors are all to be involve in decision making process however, it seems at the end the state actors and some powerful traditional authorities may have the final decision upon all the strategies that comes out from the other REDD+ relevant stakeholders in Ghana.

3.5 Challenges of REDD+ Pilot By Government Officials

There are some challenges of REDD+ activities identified by government officials in the two study areas. Some of the challenges include inadequate fund flow within state officials in REDD+ pilot areas.

[15] Capabilities means "what a person or household is capable of doing , livelihood capabilities comprise ability to gain a livelihood including abilities to cope with stress and shocks to be dynamically adaptable and to explore opportunities" (Chambers and Conway 1992: 25)

The government officials identified inadequate flow of funds within the state officials to educate forest dependent communities on REDD+. Therefore government officials again identify land tenure system, ownership of Carbon right, and carbon benefits sharing to be complex and needs to be reviewed for clarity. This review may clarify the complex nature of how the benefit sharing between Land owners, land farmers and migrant farmers. The challenges identified are further discussed below.

3.51 Carbon rights and benefits sharing

REDD+ is to reduce GHG emissions and improve the livelihood of the people who lives and manage forest in forest areas using for the project. To be able to improve the livelihood of the forest communities, there should be security of the land and trees grown to be able to have carbon right and benefit from REDD+ project. Land tenure system is different in different countries and is complex in the developing countries, it is hardly to understand unless it is involved in economic and political issues such as government projects like REDD+ and mining projects (Bruce 1998).

Increasing population pressure and market incorporation have develop various forms of land right that has created and formalize private property right but in Sub Saharan Africa, there is more to look for suitable solution that rely on the existing informal mechanism at the community level (Platteau 1996). Land reforms in various ways are losing potential in achieving poverty reduction and rural development (Deininger et al. 2009) . Nevertheless, REDD+ will provide incentives for land use change for tree planting and there is going to be a tendency of struggles for the ownership of the land and tree right to be able to claim the benefits in REDD+. GoG should take a look at and improve the informal system of land and resource right to enable good system of benefit sharing of REDD+ for livelihood improvement.

One of the hindrances to the national agricultural and industrial development is Land tenure system; the nation acknowledges the right and land administration of the chiefs, head of clans and various tribal families (Blay 2005). Resource tenure issues are challenging issues in the nation and land tenure issues will likely make the carbon rights and benefit sharing difficult in the country. Ghana's land tenure system is very complex; land actually is for the state and traditionally belongs to the various stool land chiefs. Non citizens of the nation do not have rights over any land; land can be leased to non citizens in a freehold interest[16] . Ownership of carbon rights is going to be complicated because there is a problem of how to share benefits in a range of different owners within a piece of land. A farmer who farms a piece of land might be the land owner or farm on land belonging to another person/farmer. One MOFA Official in both research districts mentioned that there exist Land owners/farmers and migrant farmers in the districts, and elaborated on the terms mentioned that, land owners have legal right over the land such as the Chiefs and other private individuals; land Farmers cultivate the land but may or not have legal ownership right over

[16]Copyright of the constitution of republic of Ghana(Amendment) Act, 1996

the land and Migrant farmers are temporary farmers who move from one place to another place for farming

The benefit sharing system of forest revenue both in forest and off reserves are shared in this basis according to a stumpage disbursement report (FC 2011), FC has a share of 50 percent each on the on-reserve and off forest reserves whiles Stool/land owners and others have a share of 50 percent in forest on-reserve and off-reserves. The latter share of both forest and off reserve adds up to 100%, and within this 100%, 25% is for the stool lands, 55% is for the district assembly and 20% is for the traditional council.

The benefit sharing system especially on the forest off-reserve virtually exclude the local people who do farming activities and conserve trees in the off reserves even though the district assembly and the traditional council share are for the development of their various communities. On the other hand, one of the state officials from FC mentioned that, they are already encouraging farmers to conserve trees in their farms and increase number of trees in their farms to regain more trees back into the reserves within the REDD+ pilot sites. This is a challenging issue because the local people actually may not continue conserving and planting tree while they know at the end may not benefit from the trees they are conserving.

Plantation development through reforestation programmes has been going on in Ghana since the early nineteenth century. One of the programmes includes Taungya System[17] which later on was modified and became Modified Taungya System because of the unequal benefit sharing system that was favouring the state elites (Agyeman et al. 2003). The modified Taungya system seems to favour the local community groups with their share of 60% and within the 60%, 40% is apportioned to the farmers in the communities. The farmers on the ground who plant and maintain tress through Taungya system are still lacking behind the benefit sharing scheme.

The plans of the state actors to implement REDD+ for clear and participatory process of the benefit sharing have come out with Bottom up approach to involve the communities. The state official from FC mentioned that, though the communities are participating in the benefit sharing scheme, the final decision lies in the hand of the state officials. The REDD+ pilot communities are participating in the benefit sharing design with evidence in a community in Wassa Amenfi West namely Atobrakrom. The local people are participating in a group form with an existing local forestry management group called CREMA. CREMA have a design of the benefit sharing allocated; 70 percent for the farmer; 20 percent for FC and 10 percent for the traditional authorities although, they have less knowledge on how the carbon is going to be measured and paid to them.

In the two research districts, there exist complicated issues on who to claim the carbon right to receive accrued benefits for the members of the community. There are migrant farmers who farm temporarily and move away. Since tree farming takes a longer period of time, there is a tendency

[17] Taungya system is a plantation development programme that enables the local farmers who live close to forest reserves a degraded land to farm and at the same time to maintain timber trees (Agyeman et al.2003)

of challenging issues on the carbon right and how the benefit is going to be shared. These complications can be addressed when communities and traditional leaders who are land owners and land farmers are involved in the planning process of REDD+ to contribute to resolving land tenure and tree right challenges.

Chapter 4 REDD+ and Forest dependent Communities in Aowin Suaman and Wassa Amanfi West

This chapter describe the interviews with the communities and their various chiefs to discover their knowledge of REDD+, their relationship with the forest around them and how they perceive REDD+ in their lives. A brief background of the two study districts are given below showing the total area, population, Occupations, the study communities, vegetation type and some resources in the districts.

Background

Aowin Suaman is a rain forest type with a total area of 2,717 square kilometres which is about 10 percent of the nations entire land with a population of 119,133 (Ghana statistical Service 2000). The district has two main rainy seasons that is the major season which is from the month of May to July and the Minor season which is from September to October. The district has a yearly rainfall rate between 1500 to 1800 millimetres with an average temperature of 26^0C.

The district has two main perennial river bodies namely Tano and Boi which serve as water supply in the district throughout the year. The soil is mainly clayey loam and can sustain large range of food crops and trees which s good for the REDD+ project. The project communities are New Yakasi and Nyankomam

The district is branded by forest and sacred grooves and the vegetation is the rain forest type. The land area of the district symbolizes 11.6 percent of the total area of the region which is approximately 23,921 square kilometres. There are nine (9) scrappy forest and they are full of numerous economic timber species (2008 report from ASDA).

The main occupation of the district is farming and few do other jobs in addition to farming as shown below;

Table 4.1 Occupation of the people in the district

OCCUPATION	MALE	FEMALE	TOTAL
Administrative and managerial workers	61	30	91
Sales Workers	611	1,275	1,886
Production, transport operators	747	1,341	2,088
Agriculture	25,154	20,399	45,493

Source: Ghana Statistical service 2000

Wassa Amenfi West District also has a total area of 2,354 square kilometres with a population of 186,257 and a growth rate of 2.3percent per annum. The main occupation is agriculture and it employs about 75.6% active labour strength and 5.4% in manufacturing and processing (DA, MTDP 2006). The capital district name is Asankraguaa.

There are six (Forest Reserves) that gives a favourable condition for the growth and survival of range of biodiversities such as economic tree species like Mahogany, Terminalia Sp. It also has fauna's such as deer, antelopes and elephants. The district has two perennial rivers that supplies water namely, Ankobra and Tano. The communities in this district for the study are Atobrakrom and Kamaso and the average age of the farmers is 49 years.

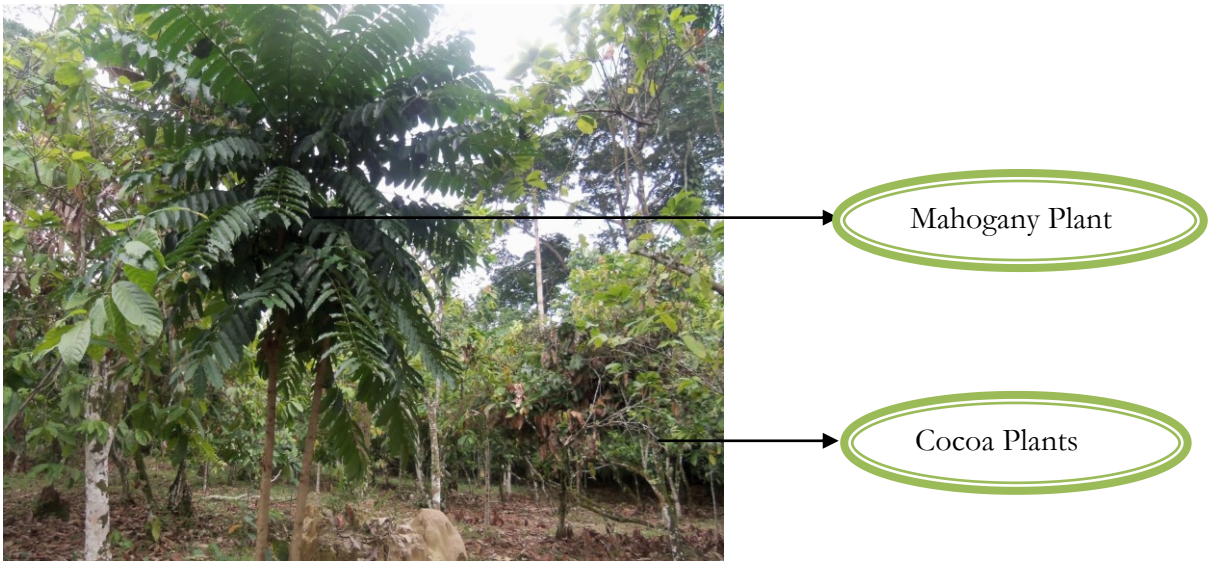
4.1 The communities and forest people in Ghana

In Ghana an estimated 11 million people lives in forest and two thirds of these population depend on forest resources for their livelihood and supports forest management activities in the country (Gyimah and Dadebo 2010). The research sites in the two districts have communities and forest people that depend on the forest for their livelihood. Most of the forest people are Cocoa farmers in the off-reserves.

Forest people interviewed in Wassa Amenfi pilot sites are already actively involved in forestry conservation programmes by CREMA groups and other individual farmers with support from FSD and MOFA. The Forest people interviewed mostly have individual private tree farms and practising agro forestry scheme which is now used as REDD+ programme. Of the forest people interviewed, 55% have embraced the REDD+ program while the others have not and complain about injustices connected to forest management practices, such as: "*The benefit may not get to us because the state officials may monopolise the benefit sharing system*"[18]. Forest people interviewed are farmers in the community. According to an official from FC, Ghana's definition of forest for REDD+ is " *piece of land with a minimum area of 0.1 hectares, with a minimum tree crown cover of* 15% *or with existing tree species having the potential of attaining more than* 15% *crown cover, with trees which have the potential or have reached a minimum height of 2.0 meters at maturity in situ".* Therefore, Cocoa trees can qualify for REDD+ project as well as the trees they are going to interplant which will serve as an incentive for the farmers in the district. Figure 4.1 shows agroforestry practices in cocoa landscape of one of the study areas.

Figure 4.1: Agroforestry in cocoa landscape of a farmer in Wassa Amenfi West district

[18] A farmer in Wassa Amenfi District (02-08-2013)



Source: Own source from research field

Forest people in communities who are farming have experience and have knowledge of the type of trees that do co exist in the cocoa and other plants. Some of the trees mentioned include Ofram, Emire (*Terminalia sp*) and Mahogany (*Khaya Sp*). Farmers do have indigenous knowledge on conserving forest resources and biodiversity, they produce food and protect the forest resources at the same time, which contributes to sustainable land use practices and therefore must get benefits that come out from forest resources (Hulme and Murphree 2001, Emerton et al. 2001). Farmers need support from the government and nongovernmental organisation to support and improve their knowledge for sustainable forest management. Sustainable land use system by practising mixed farming by planting crops, trees and rearing of animals may help in mitigation of GHG emission and at the same time provide food security (Palm et al. 2010). Below shows two pictures of multiple land use practice in Wassa Amenfi West District

Figure 4.2: Multiple Land Use Practices in Wassa Amenfi District

Source: Own source from research field

The discussion above highlighted that most of the people living in communities around forest areas depend on forest resources. These forest

people also play a major role in management and protection of forest, as the people in the study areas are already into agroforestry to increase forest cover. The forest people therefore must be recognise in environmental projects like REDD+ and needs the necessary support to continue in forest management.

4.2 Community and Chiefs' Understandings of REDD+

The communities interviewed and their various chiefs in the research area shared their knowledge on REDD+ and climate change impact in their life and farming activities during the interviews. In general all the four chiefs were informed about REDD+, 80% of the interviewees in the community were informed about REDD+ project and 20% were not informed. Seventy eight percent of the interviewees and the four chiefs understand REDD+ as planting and protection of trees and within the 78%, 70% added ideas in addition to planting of trees including to improve their farming activities, gain benefit from carbon sales, reduce climate change and its negative impact. The remaining twenty two percent did not have knowledge of what REDD+ is The forest people added that, REDD+ also includes rearing of animals, prevention of bushfires and practising sustainable farming system. However there is a need for more sensitization especially on how the carbon is to be measured and at what stage is the tree eligible for the REDD+.

To increase the communities' knowledge and commitment on REDD+ and to claim their right on the benefit to gain from the project, the farmers need to be empowered. Empowerment requires all the dimensions both in the process and outcome namely economic, human and social, political and cultural empowerment (Luttrell and Quiroz 2009). This can be achieved by building the capacity of the local people to increase their knowledge, commitment, skills and resources (McLean et al. 2001), to enable effective participation of the community for development with the support from government and nongovernmental organization to voice out for their right and improve upon their livelihood from the benefits of REDD+. Without an outcome of the process of empowerment may worsen farmers' poverty level, although farmers may be rich in terms of financial resources but lack the capacities and access to power, voice and security.

In all, the people in the REDD+ communities are quite informed of REDD+ and the benefit it is going to give for the improvement of their livelihood. However, the technical issues on how the carbon is to be measured and sell are rare to the people. Hence there is the need to strengthen the capacity of the people and empower them to claim their right on the benefit of forest resources.

4.3 Education of REDD+ in the communities by the state and non state actors

Sensitization entailing building knowledge and skill through education on livelihood and landscape strategies of REDD+ is the main ongoing activities in the various communities in the two research districts to create awareness of the project. The sensitization programme is done by FSD, MOFA and IUCN working with other local NGO's in the research districts, again the

chiefs also play a role in the education of REDD+ by encouraging people to plant trees.

The level of understanding of the project is not yet well understood by some community members interviewed and one of the challenges is capacity of government officials to organize sensitization continuously in the research communities in terms of funds and logistics. The sensitization depends on the capacity of the project government officials in the research districts. Wassa Amenfi West district started the pilot project since four (4) years and have visited and sensitize community project members six times or more whiles Aowin Suaman started theirs in two years ago and have done two sensitization programs.

The sensitization process involved pre informing the community chiefs who are part of the project about their agenda for organization. Individual members in the research communities mentioned that during sensitization, they were grouped into 5 and 6 groups, and their views on climate change were given to sensitizers: IUCN and FSD, afterwards they were educated on REDD+ by the sensitizers that REDD+ is a new mechanism that is to reduce climate change effects and provide incentives. The sensitization is about educating them of what the project means and also urging land owners to release their lands for the project. They also demonstrated and educate how trees are planted and protected.

Wassa Amenfi West are very active and gave more relevant insight of REDD+ and this may be because of the frequent sensitization programme given to them due to the capacity level of the government, non government organization and also CREMA members in the district. Each community member interviewed stated that they used to depend mainly on the forest resources for their livelihood; however their dependency is reduced due to reduction in the forest resources such as the non timber forest products. A survey in Ghana shows income from forest resources: Income from Agriculture, forest and off farm contributes 60%, 38% and 2% respectively for local households and suggested improved management of forest with community inclusion because forest resources are reducing (Appiah et al. 2009) .

In all, for a state to implement environmental project like REDD+, the state is to have both authorities and capabilities to involve the communities to implement REDD+ successfully in Ghana. Wassa Amenfi West Districts REDD+ pilots seem to be going on well than Aowin Suaman district. This is because of the exercise authority capabilities with logistics by government and nongovernmental organization respectively.

4.4 Household Usage of Forest Resources and How REDD+ is perceived in The Study Communities

A statement from the Food and Agriculture Organization (2010) indicates that, forest resources plays a critical role in human livelihood, ecosystem functioning and health. In many local communities worldwide, people depend on the forest for the harvesting of timber and non timber species.

Forest communities depend on forest resources for their livelihood such as harvesting and uses of Non Timber Forest Products (NTFPs), NTFPs are products earn from the forest either for individual of commercial purposes including plants and animals (Falconer 1994) in Ghana. In recent situation 60% members in the research communities and household do not earn products from forest. The remaining 40% earn forest product but only for individual use. Those who harvest these resources have permit that allows them to do so. Some of the NTFPs still available in the forest for harvesting with a permit include canes, snails, mushrooms, piston and poles for building. This confirms the reduction of forest product in Ghana by survey conducted by Appiah et al (2009)

About fifty five percent of the people interviewed gladly received the project with the perception that it will help increase forest resources for household use and trade and increase their farm yield by practising agro forestry. Furthermore, there is the likelihood of REDD+ reversing the degraded forest reserve to reduce GHG emission into the atmosphere. The remaining percentage also gave their views that, REED+ may not influence how they use forest resources because there have been past environmental projects like this that did not help improve their lives. REDD+ may have the tendency of reflecting similar impact in their lives.

It can be understood that the dependency of the forest resources by forest people has reduced drastically and has limited the usage of forest resources. The forest people however see REDD+ to reverse the situation and improve upon their livelihood.

4.5 Communities/Chiefs Strategies to support REDD+ Management

The forest communities and their various chiefs interviewed pointed out some individual strategies to help in REDD+ management whiles others are considering using the existing local forest management strategies.

The various chief interviewed confirmed that, they do not have strategies for REDD management but will rely on the existing forest protection rules to manage REDD+, for example they have local rules that forbids community people to use forest resources without permit from the government.

The local people in the communities have formed forest committee members who help in local forest governance system facilitated by their various local chiefs. These people communicate to the forest officials cases of offenses contrary to the forest management system and concerns of community members to forestry management issues. The communications are done verbally to the forestry officials when they come into physical contact with them. The community members do not have phone numbers of forest officials and cannot report emergency cases to the officials such as fire outbreak in the night, most of the trees may not survive another related outbreak.

Local tools and strategies that are used to promote REDD+ are using existing local forest management practices like enforcement of local rules and regulations, regular sensitization by the community centre, parents educating their wards, organization of meetings using gong -gong beaters on a day when they do not go to farms. Menial sanctions are given to culprits

and Farmers are encouraged to register their trees farms with the government to serve as evidence of tree right to enjoy benefits of the projects.

Individual farmers reported plans to monitor and protect their tree and crop farms by everyday visits to the farms to show their presence and ownership. Additionally, enforcement of local rules and regulations on forest governance included the creation of fire belts and regular weeding of farms. Furthermore, temporal structures will be built in their farms and informing the forest officers or police of any culprit. In the light of what has been discussed above, forest dependent communities uses forest resources and are the best managers for the forest resources (Dressler et al. 2010).

The explanation above bring to surface that, Forest people in the communities have some degree of knowledge and plans to manage and conserve forest resources. Most of the plans mentioned above may play important role in managing REDD+ in a better way.

4.6 Hopes and Expectations of REDD+ and its Implications

The awareness creation of REDD+ in the forest communities on the incentives of REDD+ have raised the local people's hopes and expectations to improve upon their livelihood. A growing number of PES programs are implemented at the community level in global south. Analysis of Cambodia PES shows that, REDD+ may importantly augment community bases forest management system like CREMA and CBNRM or weakens the community management system thereby bringing recentralization of decisions and right of forest management system(Milne and Adams 2012). PES in Cambodia was implemented by the government forestry administration and it claims to be voluntary.

Individual chiefs interviewed hope and expect to get incentives for the development of the community such as health and education infrastructures and improve upon the people livelihood. The chiefs also play a part in the benefit sharing programme and gave their view that, the farmers who have tree right should have a share of 70% while the remaining 30% should be for the community and the state.

Individual members of the community interviewed hope and expect to gain benefits from the project to improve their standard of living mainly with the tangible and intangible benefits. Some of the tangible benefits the local people expect to gain are physical cash to trade and invest in their children future education, get financial assistant from banks and to gain access to forest resources at their vicinity such as poles for building. The community expects improvement in infrastructure such as good roads to facilitate transportation of farm goods and hospitals.

Benefits from the project are expected to start receiving especially on the finances as an evidence to continue with the project. They expect the government to grant and protect their tree rights and hope for the increase of biodiversity in the region and the country as a whole. The community expects the donors of the project to continue giving funds to expand the project.

REDD+ project may or not meet the expectations of the local people if the policies strategising does not clarify carbon right and benefit sharing scheme. Local people may resist government authorities if their expectations are not met. To understand politics in allocating, controlling and producing and uses of resources, collaboration and cooperation of government and communities should be discussed and agreed on how to allocate and control between them to reduce conflict (Tria Kerkvliet 2009).

Every day politics of resistance of small scale farmers often comes in a form of jokes or in action such as setting fires in farms to resist or fight for their right from higher authorities (Tria Kerkvliet 2009). There is evidence of some local farmers who is likely to resist the higher authorities in the research districts and it quoted "If *I plant the trees and the government officials do not give us the benefit due for me, I will cut down all the trees planted and replace with cocoa and live my normal life*". Rightful resistance may happen if government official fails to provide what they have committed to provide by the communities to claim their right (O'Brien 1996)

Some people reported that they were discouraged about participating in environmental projects with the reason that, the government officials are not trustworthy in distribution of resources. Besides, timber contractors may seize and fell their trees and destroy their farms without compensation and their voices are not always heard they complain and report cases harvesting and destruction of their farms to government officials.

The package and delivery of REDD+ to the forest people in the communities have raised their hopes and expectation to gain benefit and improve upon their lives. The benefits are the tangible and intangible benefits but hopes and expectation of the forest people is on the tangible benefits, especially physical cash. The interviews conducted show that if these expectations are not met it may create a tendency of resistance toward government body by the people. However, the objectives of REDD+ may not come to pass and forest covers may continue to reduce and emit GHG into the atmosphere.

Chapter 5 Conclusion

This research positions itself within the current literatures on the challenges of REDD+ governance in the developing countries. This study was able to provide empirical materials that show how the state actors are planning to mediate land use change for REDD+ working with the communities in the pilots to implement and manage REDD+ project. In strengthening evidence for the REDD+ planning activities in the country, the paper addresses the question: *How are State actors in Ghana planning to mediate the apparent competing objectives of land use change for REDD+ and expansion of agricultural activities for human and economic development working with the communities?*

This paper has pointed out the delicate strategies that the state actors are putting in place to improve forest governance system in working with the communities to pave way for successful implantation of REDD+ project. First, the GoG is mediating the contradictory role to mitigate land use change for REDD+ and agricultural expansion by encouraging farmers to conserve and increase indigenous trees in their farms especially in cocoa landscape pilots (Agroforestry practices) such as Mahogany, *Terminalia Sp* and other fruit trees such as avocado.

Secondly, state officials identified agricultural expansion as one of the drivers of deforestation and its effects in the economy of the nation including collapse of timber industries. The government thus sees REDD+ as critical to reverse these challenges of the nation state to provide for those who depend mostly on forest resources and raising revenue for the country. Government officials again attested and suggested to the fact that the existing forest management system needs to be critically reviewed in terms of structures such as clarification of benefit sharing and land tenure system and this will be effective if all participants from the national to the local level are actively involved in the consultancy and decision making process.

Thirdly, Forest people have hopes and expectations to receive benefits from REDD+ and if these expectations are not met, the forest people may resist government efforts. However, this may create the tendency of failing to achieve sustainable forest management in the country. Individual focus was on the incentives of REDD+ to receive such as physical cash to reduce their poverty level and improve their livelihood. Forest people who were interviewed showed they are generally quite involved and informed about what REDD+ is about and the benefit it intends to provide however, the technical aspect such as how the carbon is to be measure for sale and how to achieve this technical issues have not been informed to forest people.
Fourth, the community members interviewed in the study area showed a degree of knowledge and strategies to conserve and manage forest resources. Individual community members and their chiefs showed some commitment to help the state to manage REDD+ activities at the local level. The local people gave individual strategies to monitor and protect the

Project and help to enforce strategies for REDD+ but had fear that the state officials may monopolise the benefit sharing system and they may not get the incentives for them to continue to support and manage REDD+. This shifts our focus onto (Robbins 2011) question: Who benefits from forest conservation hard work and who loses?

Deductions

State and non-state actors interact and cooperate within and between themselves and come out with different results in environmental projects such as REDD+. The result can be positive or negative and depends on how the state exercises authority and possesses capacity to implement environmental projects. The interaction of state actors of Forestry Services Division and International Union for Conservation of Nature in Wassa Amenfi West district showed a positive result in terms of the sensitization of REDD+; for building capacity of Forest people on knowledge and skills of REDD+. To affirm, the state is sovereign and exercises implicit and un exclusive power; the state is recognized as public in creating and implementing corporate decisions, the state exercises legitimation, acts as an instrument of control and as a territorial association (Heywood 2002). State actors play an important role in creating and implementing corporate decisions for common interest but sometimes their roles conflict. Effective collaboration between and within state and non state actors can bring better change in policy process and outcome, however state can exercise its powers and neglect other partners over how to manage state resources. This may bring conflict and submerge REDD+ and its objectives there.

The government officials, mainly FC, are the REDD+ elites and other relevant REDD+ stakeholders including MOFA. The government officials are developing strategies and organising activities such as public education with the forest fringe communities who are directly involve in REDD+ pilots. The educational programme for REDD+ is to reduce GHG into the atmosphere and provide incentives to improve livelihood of the poor through carbon market. However, putting value on nature as a form of reducing GHG such as carbon to change the environment may create a tendency that re-enforces injustice and inequality and may deprive people of goods and right to food system (Fairhead et al. 2012). It seems carbon market poses complex technical challenges especially on how the carbon is to be me measured for sale. These challenges may need technical elites that may create a tendency of excluding the forest people from getting what is due them.

The indigenous people[19] or the forest people in the study area have some knowledge, plans and plays a vital role in conservation and management of forest resources. The forest people have barely embraced REDD+ but are directly involved in the project with high expectations and

[19] Indigenous and forest people referred in this paper are populations whose ancestors inhabited the land and other ethnic groups that all live around the forest reserve in the districts

if these expectations are not realized, may create the tendency of increasing inequality and deepening deforestation. Forest policy focused on the reservation and commercial exploitation at the expense of other uses of land, tree resources and wildlife and indigenous people who had previously used the forest (Adams 2003). This argument brings to surface that, order to obtain sustainable forest conservation there is the need for justice in process of deciding and managing environmental policies to conserve nature and forest effectively.

There are various perceptions of REDD+ projects in the country. The indigenous people interviewed for this study perceived REDD+ as planting of trees to receive direct incentives such as cash for present and future. The indigenous people interviewed expressed their view that, they are ready and are waiting to witness evidence of the direct benefit from the government while the government also sees REDD+ as critical to reduce deforestation rates. The IUCN recognizes the high expectations for REDD+ in the country and are facilitating activities that will help improve and sustain the livelihoods of local community members and reduce environmental changes due to drivers of deforestation.

The Community members interviewed in the study area have a low educational background with primary educational level. Some were illiterate, mainly small-scale farmers. The forest people in the communities are yet to understand REDD+ in details and its objectives and have strategized to collaborate and may resist government if the expectations they have on the benefit of REDD+ are not met. The resistance is likely to be in a form of destroying trees that have been planted in their crops and replacing the space with their usual cash and food crops. Hence deforestation can also happen intentionally by farmers as resistance to the state.

The government identified challenges to REDD+ governance in Ghana. These challenges include the complex system of land and trees tenure system in the country. Land and tree rights system may pose a challenge on whom to claim carbon right to gain benefit from REDD+ project. The government is developing strategies to address these issues in the pilots by interaction and coordination of relevant stakeholders of REDD+ to review forest policies. The interaction between and within stakeholders can shift towards state officials and contribution from the local stake holders such as the forest people may be undermined during the process of interaction and reviewing of environmental policies. This is confirmed by (Muradian et al. 2013) that states that environmental policies cannot be depoliticized and emphasis should be given to the process of policy planning.

Further, the local communities see the benefit sharing system of REDD+ to be vague. Though the forest people have plans of how to share the benefit to improve their livelihood but this has to be confirmed and accepted by the government which can be difficult. Further, the message of REDD+ and its objective may not reach the main land owners because they are not always involve in the sensitization programme. Migrant and land farmers may not have the opportunity to make final decisions on land to be used for REDD+ activities.

This research raises important questions for further research to contribute to the better governance for REDD+ for development. *Firstly*, how can community forest management system such as CREMA gain ability to cooperate and manage forest resources for REDD+, *Secondly,* how can forest people be empowered and build their capacity on knowledge, skills on especially the benefit sharing system and commitment to gain agency and claim their right to support REDD+. *Thirdly*, what are the possible impact of Government and nongovernmental organizations interaction in REDD+ governance.

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Appendices: Informant Interview Forms

SEMI STRUCTURED INTERVIEW -THE MINISTRIES/DISTRICTS

My name is Mariam A., a Master's student in development studies from the International Institute of Social studies of Erasmus University of Rotterdam-Netherlands. The purpose of this questionnaire is to help understand existing forest governance policies and make recommendations in order to improve the likelihood of effective implementation of REDD+. This will probably take about 30 minutes of your time.

a. What is your professional role in relation to REDD+ or forest governance in Ghana?
b. How long have you been working in this office? On these topics? What was your professional background (in terms of education and work) before you joined this office?
c. In your professional capacity, what do you think of the way REDD+ pilots in Ghana have been going so far?
d. How do you see the relationship between the planned forest management system for REDD+ and the existing forest management system in the country?
e. How has the government prepared to mitigate possible tensions of drivers of deforestation such as agricultural activities and illegal logging?
f. In your opinion, what are some of the challenges faced to implement REDD+?
g. What do you feel is the level and transfer of appropriate knowledge of REDD+ within the participants of the project from national to local level?
h. What tools are used to promote information flow in REDD+ governance?
i. Has the financial flow for REDD+ been stable since the establishment of pilots?
j. Has the government planned how to use the financial gain from the carbon sales and in what way?
k. Do you face difficulties in setting up activities for REDD+? If so, what are they?
l. What are your hopes and expectations for REDD+? What do you feel is a best-case scenario for how REDD+ could precede in Ghana?

THANK YOU FOR YOUR TIME

ONE ON ONE INTERVIEW - COMMUNITIES AROUND REDD+ AREAS

My name is Mariam Awuni, master student in development studies from International Institute of Social studies of Erasmus University of Rotterdam-Netherlands. The purpose of this discussion is to help understand community perspectives on REDD+ pilot projects in order to make recommendations to improve REDD+ implementation. This is probably going to take about 30 minutes of your time.

a. Gender (Male) (Female)
b. Age (18-28) (29-39) (40-50) (51-61) (62+)
c. Educational Background (Primary) (Junior/Senior high School) (Tertiary)
d. How many people are in the household and their ages?
e. What is the main livelihood of the people in the household and their socio economic activities?
f. How do you perceive and understand REDD+?
g. Have you been involved in any meetings related to decisions about REDD+ pilot projects? If so, how many meetings? When? What were the meetings about? What was your role? What was your opinion about the consultation process?
h. What is the relationship of your household and your community to the forest reserve being use for the project? How do you and other people use the forest?
i. Do you think these uses of the forest will change due to the REDD+ programme? If so, how?
j. Do you feel that information flows from your local community to the government?
k. What tools or strategies are used to promote information flow in REDD+ governance?
l. What are your expectations and hopes for REDD+? What do you think are the community's expectations and hopes more broadly?
m. Do you have fears about REDD programme? What are they?
n. In what way is the community helping to monitor REDD programme?

THANK YOU FOR YOUR TIME

SEMI STRUCTURED INTERVIEW - THE NGO'S /CIVIL SOCIETIES

My name is Mariam A., a Master's student in development studies from the International Institute of Social studies of Erasmus University of Rotterdam-Netherlands. The purpose of this questionnaire is to help understand existing forest governance policies and make recommendations in order to improve the likelihood of effective implementation of REDD+. This will probably take about 30 minutes of your time.

a. In your professional capacity, what do you think of the way REDD+ pilots in Ghana have been going so far?
b. How has the NGO prepared to lessen possible tensions of drivers of deforestation such as agricultural activities and illegal logging?
c. How has REDD+ performed since its pilot implementation?
d. What `forms and tools is used in communicating/informing to the communities of REDD+
e. How do you see the relationship between government and the NGO
f. Do you encounter difficulties in setting up activities for REDD+? If so, what are they?
g. What are your hopes and expectations for REDD+? What do you feel is a best-case scenario for how REDD+ could precede in Ghana?
h. In your opinion what do you think is to be done to help the vulnerable, whose life is to be affected by REDD+ projects?
i. What role are you playing to help in effective implementation of REDD+ projects? And in what forms.

THANK YOU FOR YOUR TIME

SEMI STRUCTURED INTERVIEW - THE TRADITIONAL LEADERS

My name is Mariam A., a Master's student in development studies from the International Institute of Social studies of Erasmus University of Rotterdam-Netherlands. The purpose of this questionnaire is to help understand existing forest governance policies and make recommendations in order to improve the likelihood of effective implementation of REDD+ in the Country. This will probably take about 30 minutes of your time.

a. How do you perceive and understand REDD+?
b. Are you involved in REDD+ activities? If yes in what form?
c. With your authority, what do you think REDD+ is going to affect you and the people you rule?
d. Have you plan traditional strategies to improve likelihood of effective implementation of REDD+?
e. How do you communicate to the government authorities (national level)?
f. In your opinion what do you think the benefit sharing of REDD+ be done for you and the people on the ground?
g. Do you face any difficulty in REDD+ pilot project? And if yes what are they?
h. What are your hopes and expectations for REDD+? What do you feel is a best-case scenario for how REDD+ could proceed in Ghana

THANK YOU FOR YOUR TIME