AFRICAN WOMEN'S NETWORK FOR
COMMUNITY MANAGEMENT OF FORESTS

The Role of Women in Deforestation and Forest Degradation in Liberia:

A case study of women's perception in Gbarpolu County

Report

May, 2014
REFACOF

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LIST OF ACRONYMS

FCPF	Forest Carbon Partnership Facility
FGD	Focus Group Discussion
GoL	Government of Liberia
PUP	Private Use Permit
REDD	Reducing Emissions from Deforestation and *forest* Degradation
R-PP	Readiness Preparation Proposal
TSC	Timber Sale Contract
UN REDD	United Nations REDD Program

1 Introduction

1.1 Reducing Emissions from Deforestation and *forest* Degradation

Deforestation and other land use changes contribute to carbon emission that has consequences for the climate. Rademaekers et al. (2010) estimate that in Africa 20 million hectares of forests was converted to other land uses in the 1990s and, between 2000 and 2005 another 4 million hectares of forest was cleared. Because deforestation and forest degradation is contributing to climate change, some argue that efforts to tackle climate change should also involve tackling deforestation. The "imperatives for global climate change mitigation are motivating a new round of policy initiatives and projects aimed at carbon forestry: conserving and enhancing forest carbon stocks, and trading these values in emerging carbon markets (Leach and Scoones 2013, p.1)". Reducing Emissions from Deforestation and *forest* Degradation (REDD)[1] is one of the innovations being promoted.

One of the most promoted tenets of the concept is that when provided economic incentives, forest dependent peoples and forest resource users will seek alternatives to replace the forest resources, especially trees and vegetation that store carbon, they have to forgo. The economic incentive, it is argued, should reflect the value of the carbon that is stored or sequestered in the standing forests in order for it to be considered viable. Through such a system and when implemented at national levels, advocates insist that the rate of deforestation can be reduced and once degraded forest areas can be managed in a manner that allows for regeneration.

The idea of REDD+ has gained traction among governments, large conservation non-governmental organizations, and corporations. Angelsen et al. (2012, p.1) note that as an idea REDD+ has generated excitement about possibilities for getting underway on climate change mitigation quickly and cheaply. REDD+ has also been broad enough to serve as a canopy under which a wide range of actors can grow their own trees. It has been through an intensive process of conceptualization, design and implementation – even if still far from realizing its fundamental goal, namely large-scale emission reductions. No idea for saving the world's forest has generated anywhere near the same excitement and commitment of funds as has REDD+.

Critics of REDD broadly, and the approaches being adopted by governments and large conservation NGOs in preparation for REDD implementation specifically, remain doubtful about its viability as an effective measure for tackling deforestation and forest degradation. There is also skepticism about the capacity of governments in the tropics to properly implement schemes developed within the REDD framework. Two of the numerous concerns that underpin these skepticisms relate to the capacity of governments to implement REDD effectively, and the assumption that forest dependent peoples and forest resource users will shift from their established behaviors to ones that are favorable to REDD implementation.

[1] Throughout this paper REDD and REDD+ are used to imply the same concept; although there are some differences in the definitions.

The fact that as yet, REDD has no viable track record of proven success anywhere in the world further exacerbates the situation.

Concerns about government capacity to effectively implement REDD is often linked to the existing situation of poor or weak governance in many forested countries in the tropics. Poor or weak governance in the context of forestry may be linked to low level of institutional capacity, outdated or poorly developed regulatory and legal frameworks, lack of political will to work towards improving governance broadly, corruption, and a long history of injustice against forest dependent peoples. Additionally, various countries in Africa have been criticized for poorly managed consultation processes leading to the development of REDD Readiness Preparation Proposals (R-PP). The Accra Caucus on Forest and Climate Change (2011), reflecting on the R-PP development processes in various countries, noted that those processes were focused "much more strongly on attracting carbon income than on protecting the environment or the rights of forest-based peoples and communities". Some of the most heavily forested countries on the continent including Cameroon and others in the Congo basin have been singled out as prime examples.

1.2 Drivers and agents of deforestation

Tackling deforestation and forest degradation requires a good understanding of the drivers of deforestation and forest degradation. This may require clearly identifying and distinguishing between the drivers or causes and agents of deforestation in order to understand the major determinants of deforestation in any given context; but this may be easier said than done. Identifying drivers and agents of deforestation is much more complicated, and contestations over definitions and rates of deforestation remain because measurement processes are not just technical but social and political, carrying and thus cementing particular views of landscape and social relations that in turn make likely particular kinds of intervention pathway, with fortress style conservation or plantations becoming the dominant approach. In the process, other possibilities – including alternative pathways that might treat and value carbon as part of complex, lived-in landscapes, or respond more adaptively to less equilibrial people–forest relations, are occluded. (Leach and Scoones 2013, p.1)

Rademaekers et al. (2010) identified small-scale and large-scale permanent agriculture and infrastructure development as direct drivers of deforestation, and fuel wood consumption, commercial logging and timber production as well as illegal logging as direct drivers of forest degradation. Some factors that contribute indirectly to deforestation and degradation include demographics or population growth, demand for forest products, governance, and the bioenergy policies of developed countries and related demand of raw materials such as crude palm oil and biomass (Rademaekers et al. 2010). Agents of deforestation and forest degradation may therefore include commercial farmers, agribusinesses involved in plantation, loggers, slash and burn farmers, fuel wood collectors and large infrastructure developers such as governments and corporations while the causes may include the forces that drive or motivate the agents to clear the forest and convert it to other land uses (Sumit Chakravarty, 2012).
Therefore for REDD to succeed, the drivers or causes and agents of deforestation and forest degradation have to be addressed; and these drivers and agents may vary from one country

to another. However, it is important to bear in mind that there remains considerable disagreement about how to achieve this and many are skeptical about the ability of governments to effectively implement REDD as a vehicle for reducing deforestation and forest degradation. Others are also concerned that, as conceived, REDD might create additional incentives and motivations for states to reintroduce policies and laws, sometimes under the pretext of reform, that have disproportionate impacts on forest dependent peoples and forest resource users. For example, Leach and Scoones (2013, p.1) outline how "longer-established assessments, shaped by earlier forest policy imperatives, are being re-invoked and reworked amidst current carbon concerns".

1.3 The context of this study

This study is part of a larger study that aims to contribute to understanding of the role of women in deforestation and forest degradation, and their capacity to contribute effectively to sustainable management of forest and forest resources, within the context of national REDD programs. However, given the limited time and scope of the Liberia component, it focuses on the roles of women in deforestation and forest degradation as defined within the Liberian context. However, based on the findings and conclusions, it makes recommendations focusing on how to involve women sustainable management of forests and forest resources.

The study is divided into two sections. The first section presents a review of relevant literature on deforestation and forest degradation, and the second section presents a case study of the activities of women that are presented in the current narrative as drivers of deforestation and forest degradation. This study is not intended to validate or challenge these narratives. Rather, it is intended to highlight how the activities of women that are listed as drivers of deforestation might be impacted by measures aimed at curbing deforestation and forest degradation in Liberia.

This approach is based on the acknowledgement that with or without agreement on whether these activities are indeed drivers of deforestation, it is highly likely that the national measures being proposed to reduce emissions from deforestation and forest degradation will affect those activities. Additionally, it is intended to highlight the fact that given the overall forest governance environment, and that men and women use forests and forest resources differently, to successfully design and implement programs aimed at reducing deforestation those measures must be informed by gendered analysis of the forestry sector.

Finally, by raising awareness or improving understanding of these activities and their economic and social benefits to women, the study highlights how REDD+ interventions might affect women. Through this approach, the study aims to challenge policy makers and civil society actors to consider the gender dimension of policy proposals and interventions that are designed to contribute to reducing deforestation and forest degradation.

1.4 The study area

The study area was Lower Bokomu Clan, Bokomu District in Gbarpolu County. The area was selected because it is sparsely populated and is situated within a significant forest region; on the fringes of the second largest block of intact forest in the country. Bokomu District is situated just south of the 180,000 hectares of forest reserves that is part of the Liberia-Sierra Leone Trans-boundary Peace Park. People in the area rely on the forests for various livelihood activities and on agriculture for food and income. This makes the region (not necessarily the study area itself) a likely target for REDD+ projects.

Lower Bokomu Clan is located in Gbarpolu County, northwestern Liberia, and has a population of 4,678. The clan is one of two clans that make up Bokomu District. Six towns or villages, including Nyeamah, Gbangay, Way-yah-la, Moraimu, Malatumbe-quelleh and Dokorsue, make up the clan. One clinic located in Gbangay serves the entire clan.

In Lower Bokomu Clan majority of the people depend on the land to grow their own food and other crops. Furthermore the area is remote and forested, and is situated within the largest forest bock in the north west of the country. However, the government of Liberia has allocated more than 100,000 hectares of land in Gbarpolu County to a Malaysian corporation, Sime Darby Plantation Liberia (Government of Liberia, 2009). The land allocated to the company covers more than two-thirds of the clan land area. The second clan within Bokomu District, Upper Bokomu Clan is similarly affected by this large land grant. This large land allocation to Sime Darby and the gazetting of forest reserve in the north best illustrates some of the competing land uses that are now being experienced in Liberia and which may be intensified by the introduction of REDD+ programs.

Access to Bokomu District is poor and impassable for most of the year, especially during the rainy season. Many of the villages in the district are connected by bush paths and the average walking time between villages is between five to ten hours. This situation has slightly improved however, with the recent conditioning of a road going from the provincial capital, Bopolu City, to the notorious prison camp, Belleh Yala.

Artisanal mining for gold and diamonds is a major livelihood activity in Gbarpolu County (Government of Liberia, 2008). The county contains significant portions of the forests in Liberia. Compared to other counties in Liberia, Gbarpolu has “one of the worst food access profiles” and a “high percentage of highly vulnerable food insecure people”; ironically “the county has very fertile land that can produce tremendous yields to feed its people and others” (Government of Liberia 2008, p.14).

2 Forestry, agriculture, women and REDD+ in Liberia

2.1 The forestry sector

Liberia initiated wide ranging reforms in the forestry sector beginning 2005. In 2006 the country adopted a new forestry law as well as a national forestry policy and implementation strategy, and ten core regulations in 2007. Given the recent history of the logging industry, especially with regards to lack of transparency and accountability, widespread illegal logging and associated corruption, civil society adopted a strategy that aimed to tighten as many

loopholes in the legal and regulatory framework as possible. For example, advocacy focused primarily on institutionalizing public participation, securing the public's right to information about forestry operations, introducing higher standards on environmental management and protection, and enshrining benefit sharing arrangements within the law. One of the main results of civil society advocacy for these changes is that the Liberian forestry law is regarded as one of the most progressive forestry laws on the continent.

On a down side, throughout the reform process scant consideration was given to gender issues, especially regarding the power dynamics and social relationships that underpin forest governance, the roles of men and women in forestry, and the different needs of men and women with respect to the use of forest resources. Besides references to the inclusion of women in public consultations and local forest management bodies, the laws and regulations fall short of defining processes whereby women would be supported and empowered to play significant roles in forest governance. Additionally, there is no consideration of the different uses of forests and forest resources that are common among women, the role of women institutions in traditional local governance regimes that have implications for forest, and there is no acknowledgment or appreciation of the role these women institutions could play in forest governance at the local level. For example, the fact that women rely on the forest for a variety of forest resources that they gather for subsistence, income, and health purposes is neither acknowledged nor considered throughout the policy and the forest management strategy.

As a result the local forest governance regime and benefit sharing arrangements do not take into account these complexities. To the contrary, they contribute to maintaining the status quo or retaining the existing power structures and reinforcing the unequal social relationships that underpin forest governance and management arrangements in the past. But this situation reflects the reality of the ordinary Liberian woman in the 21st century and it is not entirely limited to forestry.

Weah (2012, p.1) argues that "the concept of gender equality is relatively new in Liberian development discourse" and that for many, "gender-based social inequality is a non-issue". On the other hand, she argues that "gendered differences, or the different roles and rights of men and women, is an issue at the heart of Liberian community-based forestry (ibid)". This situation exemplifies the level of marginalization and exclusion women continue to face, especially in rural areas where customary norms and practices that particularly affect women remain alive and deeply entrenched.

2.2 The agriculture sector

Given its role contribution to carbon and other greenhouse gas emissions, the agriculture sector is vital to the discussion about deforestation and forest degradation in the context of climate change.

The majority of laborers in the agriculture sector in Liberia are women. Women also make up the majority of the small-holder producers that are working in the sector. Liberia's Poverty Reduction Strategy notes that 60 percent of agricultural products are produced by women, and women carry out 80 percent of trading activities in the interior. Women also play a vital

role in linking rural and urban markets through their informal networks established as part of their trading activities. On the other hand, despite the significant roles they play in the agriculture sector, they have limited access to land; a major factor that negatively affects and limits their contribution to development of the agriculture sector. In spite of the significant roles women play in the agriculture sector, none of the national agriculture policies of last six decades included a clear strategy on how women's potential could be harnessed for agriculture development.

In its review of the last six decades, the Government of Liberia (2008) highlighted several lessons learned from the implementation of past agriculture policies. The policy of the 1950s and 1960s, "Operation Production" was driven by high world demands for primary commodities such as rubber, cocoa and coffee. The high demand encouraged the production and export of agriculture produce, and the sector was dominated by foreign direct investment. But, according to the Government of Liberia (2008, p.6) "activities were ad hoc, mainly carried out under concessions for land agreed between investors and the government for long periods covering 40 – 99 years". Furthermore, "large scale mechanized commercial production activities were encouraged" and "there was no meaningful attempts to integrate the monetized export/industrial economy and the subsistence/ food-producing economy" (ibid). Consequently, as the high prices that were the main drivers behind the policies of the 1950s and 1960s began to drop in the 1970s while oil prices started to rise, the trade deficit between Liberia and other countries began to worsen.

Contrary to the situation in the 1950s and 1960s, the government adopted a policy promoting self-sufficiency in food production in the 1970s within the framework of an integrated rural development program led by the public sector. However, the current agriculture policy notes that because the approach was neither participatory nor diversified enough, it failed to generate the desired results. Similar missteps continued through the 1980s and up to 2006 when the government embarked on a review of the agriculture policy.

Throughout the last six decades none of the policies reviewed had given any attention to gender issues or sought to understand the roles, needs and interests of women from that of men in the agriculture sector; especially within the context of power relations that underline land tenure arrangements. Following its review of the agriculture policies of the last six decades, the government amongst other things concluded that "women and youth should be encouraged and empowered to play meaningful roles in the Sector (Government of Liberia 2008, p.8)" going forward.

Ironically, the development of a postwar agriculture policy followed the same path as the reform of the forestry sector. Limited consideration was given to gender issues, especially regarding the power dynamics and social relationships as elements of the political economy of the agriculture sector. Land tenure, especially access to and ownership of land and how this affects agriculture development as well as the different roles of women and men in the sector were not clearly delineated. To its credit however, the current agriculture policy highlights some significant contributions women make to the agriculture sector. The policy notes that women in rural areas produce most of the food and are largely responsible for household food security. Women are also involved at various stages of the value chains of major food and cash crops.

Liberia relies heavily on the agriculture sector. The sector supports livelihoods for about two-thirds of the population, involves about 70% of the active adult population, and contributes 90% of the country's export (Government of Liberia 2008). Investment in the sector has the potential to create jobs, improve access to food for majority of the population, and contribute to reducing the level of social and economic inequality in the country.

In this context, REDD+ programs that negatively affect agricultural productivity by restricting access to land, forest and forest resources need to be considered with a great degree of caution. The activities of women in the agriculture sector, especially in terms of production, primary processing, and trading of agricultural commodities that would be negatively affected by restrictions related to REDD+ programs need to be thoroughly examined and evaluated against the potential benefits it would deliver to those that would be affected by such programs. A summary of Liberia's REDD Readiness Preparation Proposal or R-PP is presented in the next section.

2.3 Liberia's REDD Readiness Preparation Proposal

2.3.1 Stakeholders identified in the R-PP

Liberia host the largest remaining forest blocks in the Upper Guinea forest ecosystem that spans most of West Africa. According to Liberia's REDD Readiness Preparation Proposal (R-PP) about 45% of the country's land surface is under forest cover; Sherman (2009) disputes this figure and argues that it could be closer to 35% instead. Liberia is one of a select number of countries that are moving ahead with preparation for pilot projects within the framework of the World Bank's Forest Carbon Partnership Facility (FCPF) and the United Nations REDD program (UN REDD). Liberia's R-PP was approved on March 19, 2012.

As a part of the R-PP development process, a REDD Technical Working Group was established to coordinate the process. The Working Group then established various taskforces including one on Consultation and Participation. The task force on Consultation and Participation conducted a stakeholder mapping prior to initiating a series of stakeholder consultations, which it felt was essential in order to "inform understanding of the issues [related to REDD+]; get stakeholders adequately prepared for the implementation phase of REDD+; ensure that all the relevant stakeholders are consulted; [and] stakeholder's rights to clear and simplified information is respected" (Government of Liberia, 2011, p. 31). The taskforce, through the mapping process, identified "key stakeholders contributing to the drivers of deforestation, stakeholders who have an interest or stake in REDD+, and those that are most likely to lose (ibid)" from the implementation of REDD+ in Liberia.

The stakeholders identified included various government Ministries and agencies, civil society groups, research and academic institutions, trade associations, private sector and forest dependent peoples. The forest dependent peoples listed as stakeholders, included town chiefs, elders, hunter groups, and community forest management bodies. Women were ostensibly missing from the list of key stakeholders and were instead listed under "other potential groups (Government of Liberia 2011, p.32)" that would be affected. While the task force may argue that women are included in the various stakeholder groups already listed,

such argument justifies why women should have been treated as a separate and important stakeholder group. As Weah (2012) points out, the needs, interests and situations of women are very different from that of other stakeholder groups and mixing them up in other groups results in their interests and issues getting overlooked or buried in the mix.

As further evidence of why treating women as a separate stakeholder group may be strategic, one of the key questions stakeholders raised during the consultation was “what additional plans REDD+ have to consider the voices of women, youths and vulnerable forest dependents (Government of Liberia 2011, p.35)”. Questions were also raised about private land, rights of land owners should they refuse to participate in REDD+, and whether in fact private land would be considered for REDD+ projects. Concerns about rural livelihoods of forest dependent peoples were also raised by stakeholders during the consultations.

2.3.2 Drivers of deforestation in the Liberian context

Liberia’s R-PP makes the case that “forest degradation arises as collateral damage from poorly implemented selective logging, and from shifting cultivation conducted too extensively for forest gaps to be replenished” and, “deforestation arises from forest clearance leading to land use change, which may be initiated through chainsaw logging or clearance logging and followed by intensive shifting cultivation, semi permanent or permanent agriculture, or plantation development” (Government of Liberia 2011, p.63).

Drivers of deforestation and forest degradation identified in the R-PP are extensive commercial logging, over logging, hi-impact logging and chainsaw logging. Other drivers related to the agriculture, energy and mineral sectors include shifting cultivation, plantations and permanent agriculture, charcoal production, and mineral extraction and mining. The R-PP however did not specify which of these drivers were more relevant and where concerted efforts to tackle deforestation should focus.

The R-PP notes that “evidence on the relative strengths of deforestation and degradation drivers is not directly available (Government of Liberia 2011, p.65)”. However, there are indicators that could be useful in this regard. For example, the R-PP notes that “Timber Sales Contracts [TSC] are intended for conversion of degraded forest (Class 3.1) to plantations or permanent agriculture, and allow the exploitation of all commercial species exceeding 50 cms, in a three year period. This amounts to destructive felling of land in which up to 80% of biomass may be removed” (Government of Liberia 2011, p.56). According to the R-PP 246,253 hectares of forest land was already under TSCs and Private Use Permits (PUPs) in 2011; this number would later rise to 935,694 hectares or about a third of the forest cover of Liberia in less than a year. Many operators of PUP also indicated plans to clear forest after harvesting and convert areas to plantation.

The R-PP also indentified five underlying causes of deforestation including policy and institutional arrangements, economic and market factors, landlessness and unclear allocation rights, demographic factors and unspecified socio-economic and cultural factors.

A review of various publications on deforestation and forest degradation reveals some common drivers or often cited drivers of deforestation and forest degradation. For example, logging and fuel wood collection and consumption are common to several of the literature even though they are given different characterizations in different publications. Plantations and permanent agriculture are also listed in several publications as major drivers of deforestation, while shifting cultivation is mentioned in several literatures as well. Mining and infrastructural development are also listed as drivers of deforestation.

Given the politics surrounding the current narratives about deforestation and forest degradation, one needs to treat the literature and analysis referenced in this report with a degree of caution. As Leach and Scoones (2013, p.1) point out, the analysis are not "just technical but social and political, carrying and thus cementing particular views of landscape and social relations that in turn make likely particular kinds of intervention pathway…"

Table 1 below presents a summary of the drivers of deforestation and forest degradation identified in the R-PP and other literature reviewed for this study.

Table 1: Some common Drivers of Deforestation and forest Degradation

Liberia R-PP	**Rademaekers et al. (2010)**	**Sumit Chakravarty (2012)**
Logging[2]	Commercial logging*	Logging
Chainsaw logging	Illegal logging*	Urbanization & infrastructure
Shifting cultivation	Small-scale permanent agriculture	Expansion of farming land (shifting cultivation)
Plantations & permanent agriculture	Large-scale permanent agriculture	Plantations
Charcoal production	Fuel wood consumption*	Fuel wood
Mineral extraction and mining	Infrastructure development	Mining

[2] Includes: Extensive commercial logging, over logging, Hi-impact logging

3 Methodology

Various publications reviewed identified similar drivers of deforestation and forest degradation; these are referred to as '*often cited*' drivers given the frequency with which it appeared in various literature. The often cited drivers, applicable to the Liberian context include logging, shifting cultivation, plantations and permanent agriculture, charcoal production and, mineral extraction and mining. The Liberia R-PP further classifies logging into extensive logging, over logging and hi-impact logging.

Without prejudice to the rationale or justification for the drivers listed in the R-PP, the questions investigated included the following: (1) do women play a role in any of the identified activities or are they associated with any of these drivers? (2) To what extent are women involved in these activities? (3) In view of the drivers identified, to what extent would REDD interventions impact on women? These three questions formed the general basis for interviews with women selected for this study. To address these questions participants were asked to: (1) identify the different uses of forest land and forest resources in the area; (2) prioritize the listed activities; (3) identify which of the listed activities were common among women; and (4) outline how restrictions on those activities could affect women in the area.

For the purpose of this study, the actors involved in these activities are divided into two categories; primary and secondary actors. Primary actors include those that are directly involved in the activities listed as drivers of deforestation, for example those involved in clearing forests or burning of charcoal; and secondary actors include those that play indirect roles in the activity, for example traders of charcoal or timber products. This may appear to be an overly simplified categorization, however it does provide a distinction that encompasses the various groups rather than limiting the list of actors to the most obvious groups and thereby ignoring the role of other stakeholders. However, by focusing on the activities that women are directly involved in, the study aims to show a much more direct link or effects rather than indirect effects.

The study was qualitative and targeted women respondents to ensure that their views on how REDD+ implementation might affect them was clearly established. Four Focus Group Discussions (FGDs) were organized in four of the six villages that make up Lower Bokomu Clan (Gbangay Clan). Thirty three (33) women participated in the FGDs in groups of 8 (Group 1), 6 (Group 2), 9 (Group 3) and 10 (Group 4). The feedbacks from each FGD were then triangulated with the rest, and those elements that were common, listed separately from those that were not common to all the groups. To avoid introducing biases into the discussions REDD+ and the various drivers were not referred to throughout the sessions.

While the selection of respondents, the geography of the study area and depth of the interviews generated findings that allows for generalization specific to the area, the scope of the study is limited and may not apply to the entire country. However, considering that forest and forest resources across the country are similar, and considering that livelihoods activities are also

similar in most parts of the country, the findings may be applicable beyond the study area. A second factor that may have affected the findings is that the FGDs were facilitated by the author (a male). On the other hand, facilitating the discussions in the local vernacular made it easier to connect with the respondents and to reduce the relational gap between the facilitator and the participants. However, the limitations described above should be considered as significant when using the findings to draw conclusion.

4 Findings

This section summarizes the main findings from the Focus Group Discussions (FGDs). Participants in the FGDs were asked to: (1) identify the different uses of forest/land in the area; (2) prioritize the listed activities in order of importance to women in the area; (3) give reasons for the prioritization; (4) identify which of the listed activities were common among women in the area; and (5) how would restrictions on those activities affect women in the area?

Different uses of forest land and forest resources in the area

The common uses of forest land and forest resources in the area include farming, hunting, logging, gathering medicinal plants, fire wood, growing vegetables, and gathering materials for building houses. Other activities that were identified included mining for gold and diamonds. The study area is mostly forested and mining activities has serious implications for the forest. These activities are not linked to women only rather they are general activities that involve men and women in the area.

Four types of farming were specifically identified. These included the traditional or most common farming which involves growing food crops particularly rice, corn, various types of vegetables, and tubers together. In this type of farming rice is the dominant crop and corn, vegetables and tubers are planted sparsely among the rice. The second type of farming involves growing tubers, especially cassava or vegetables on the same plot of land after harvesting the rice. The cassava and other tubers depending on the farmer may be harvested for a period of one to two years or seasons. For those that grow the cassava primarily for market, they harvest from the same plot several times by carefully removing the roots while the stems remain upright thus allowing for smaller roots to mature. The third type of farming involves growing vegetables and other short cycle food crops for market. Vegetables commonly mentioned included garden eggs, pepper, cucumbers, and beans. The fourth type of farming involves small holder cash crops farming and the main crops mentioned were rubber and cocoa.

One logging company, Bargor and Bargor operates in the area. The company was reported to be the only one conducting logging in the area. It operates a TSC and has been there since 2008/ 2009. None of the participants were involved with the company's operation, but participants in all the FGDs mentioned its activities in the area.

Participants reported that they gather their construction materials from the forest. Construction materials that were specifically mentioned included round poles, ropes and thatch. The thatch is used for roofing houses. It is also used for roofing sheds in which rice is stored after the harvest. The participants in all the FGDs also reported that they gather fire wood for domestic use, medicinal plants and herbs for both household use and treating neighbors. They clarified that medicinal plants and herbs are not commercialized on a significant scale, although those treated may chose to give a token of appreciation to the herbalist. Hunting was reported to be common and that many people relied on bush meat for protein. Bush meat is also a major delicacy in the area. There was no sign of significant commercialization or trading in bush meat. Hunters sell some of their kill to neighbors primarily for income to buy other necessities.

Priority uses of forest land and forest resources

Participants ranked rice farming, mixed with variety of food crops such as tubers (especially cassava), as the highest priority use of forest land in the area. Many noted that although farming is mostly concentrated on fallowed land or previously farmed areas, some families occasionally farm in forested areas. In all the FGDs, participants were unanimous that this type of farming is their main source of food. In the words of one respondent "*everyone here lives on farming*" because rice is the staple food in the area.

Gardening to grow vegetables primarily for market closely followed rice farming or mixed farming. In the area, garden refers to small parcels of land cultivated to grow variety of vegetables with the sole purpose of taking the produce to market after harvest. The crops grown include garden eggs, pepper, okra, and beans. This type of farming is said to be very popular among women and participants constantly referred to it as their main source of income. When several of the participants explained why they ranked gardening above other cash crops, they emphasized the point that it helped them earn *'their own money'*. Others said, '*if you make a large enough garden, you don't have to depend on men for the things you need*'.

Other cash crops such as rubber and cocoa growing was also ranked high but after rice farming and gardening. Most of the participants referred to it as '*property that you can leave with your children*' suggesting that it was a form of wealth that could be passed on to their children. Participants also said that cash crop farming is relatively new to the area, and only became popular after the Liberian civil war. Rubber is said to be particularly popular among young men who are '*serious*' or interested in securing the future of their family.

The ranking for cassava was somewhat controversial. In one FGD participants were unsure whether to include cassava under mixed farming, with rice dominating or allow it stand alone as a particular type of farming. Some participants argued for cassava to be included in the mixed farming category and placed under rice, because every time they grow rice they plant cassava along with the rice. However, the majority argued that although this was the case, many families plant cassava after harvesting their rice. In this case no other crop is planted and the cassava is the sole crop; hence their argument to let it stand alone. All the respondents however agreed

that it was another source of income but not to the same level as the vegetables that are produced for market.

Hunting was prioritized because of its importance to the local diet and not because it was popular. Many participants said that there were few hunters in the area and almost all of them hunted bush meat only for their family and only sold surpluses in the event of a major kill. Although not popular, they ranked it high because for many of them bush meat is their main source of protein and because '*bush meat also taste good*'.

Prioritizing the rest of the activities and uses of forests and forest resources was less exciting for the majority of participants. For example logging, mining and fire wood collection was discussed in a rather dismissive manner. Many participants indicated that logging brings development, even though they were very critical of the logging company operating in the area. Various participants said that the company has failed to do '*all the things they agreed in the Social Agreement*' but the government has renewed the company's contract without first seeking their opinion. Similarly, mining was reported in all the FGDs, but was ranked the least because according to some participants you had to be lucky to benefit from the activity. Table 2 below summarizes the priority listing of activities and the frequently used justification for the prioritization.

Table 2: The priority uses of forest land and forest resources in the area

Rank	Priority Uses of Forests & Forest Resources	Rationale or justification
1st	Rice farming (*mixed with other food crops*)	Main source of food for the family
2nd	Gardening (*for market*)	Main source of *independent* income for women
3rd	Cash crops	Family wealth and property for children
4th	Growing cassava	Source of income and additional food
5th	Hunting	Main source of protein; taste better
6th	Construction materials	Without shelter we can't survive
7th	Medicinal plants	For health and to treat the sick
8th	Logging	To bring development, roads and schools
9th	Fire wood	To cook and do other things
10th	Mining	To get rich; if you are lucky

Most common uses or activities among women

Of the ten most common uses of forest lands and forest resources listed by participants in the various FGDs, only five of them were listed as being common among women. The five activities included gardening, cash crops, rice farming, growing cassava and gathering fire wood. According to participants gardening was the most common activity among women, followed by cash crops. The participants however were quick to point out that although men played the lead role in cash crop farming, women were often the ones that insisted on it because '*it is good to*

plant for your children'. Participants also pointed out that they worked side-by-side with their husbands or partners because cash crop '*is making lots of money now*'. Growing cassava and fetching firewood were considered common among women, but all participants did not regard them as particularly important to women.

Three activities were consistently eliminated from the list of ten activities because they were considered to be exclusively for men. These activities included hunting, logging and mining. The three of them were constantly referred to as '*men work*' and none of the participants were involved in any of them. Participants who said they had visited a logging or mining site said they had only gone there to trade and not to work.

A limited number of participants, specifically in one FGD, said some women gathered medicinal plants but it was not common among women. Quizzed further, they clarified that common herbs, for example those used to treat common ailments were routinely gathered by anybody. They reported that most of the herbalists that treated serious ailments in the area were men, and for these serious ailments the herbs were usually kept secret from other members of the community. Others noted that women did not normally participate in gathering building materials from the forest; they only participated in support chores such as cooking and fetching water when construction was ongoing.

In Table 3 below, the activities that were listed as most common among women are listed in the order of importance to women. For example, fetching firewood was common among women, but it was not considered as an important activity.

Table 3: Most common uses of forest and forest resources among women

	Common Uses of Forests & Forest Resources	**Comments**
1st	Gardening (*for market*)	If you make a large enough garden, you don't have to depend on men for the things you need.
2nd	Cash crops	Rubber is making lots of money now. It is good to plant it for your children.
3rd	Rice farming	Many of us here depend on farming. There is no job here and everyone depends on farming to feed their family.
4th	Growing cassava	We sell it and get money for our self
5th	Fire wood	All women need wood to cook; without wood you can't cook

Potential effects of restrictions

The discussion about potential restrictions was explained in the context of the fact that the common activities among women were either listed in Liberia's R-PP as drivers of deforestation and forest degradation or the common activities occurred on land that had previously been

cleared of forest by other uses, such as farming for rice. Participants were instructed to consider the questions as hypothetical and that the questions were merely intended to develop understanding of how restrictions on those activities could affect women.

Concerns about independence ranked higher than all other concerns about the potential effects of restrictions on the activities that were identified as being common among women. This concern was particularly associated with gardening, which participants said they relied on heavily to get '*their own money*'. Gardening is not specifically listed in the R-PP but it is often carried out after initial farming activities. Following on after concerns about the loss of independence, was concerns about the loss of income that is accrued from some of the activities that are common among women. For example, concerns about restrictions on farming cash crops were more about loss of property or wealth, and inability to pay for children's education and general welfare of the family than it was about interests specific to women. Responding to the question about how restrictions on cash crop farming in their area would affect them, many participants responded, '*how will we send our children to school?*'

The final concerns were interestingly about survival. Participants noted that there would be food insecurity or '*hunger*' because '*there would be no food*'. Many respondents laughed at the prospect of restrictions on farming saying it is '*not possible*' to restrict farming in the area. Rice farming was reported as the predominant use of land in the area, and it was classified as the activity that paved the way for other activities to take place; even though those activities did not entirely depend on it. For example, participants said that it was possible to use lowlands or swamps for gardening but feared that it would limit their gardening activities to the dry season when the water level was lower. Similarly, when asked how restriction on gathering fire wood would affect them they asked '*how will we survive without cooking*'.

Table 4 below lists the five activities listed as common among women in the order of frequency and importance. The table also include an indication of whether each activity is found in the R-PP. Gardening was therefore listed as the most common activity among women and also ranked as the most important of the activities women carried out. Although every woman that participated in the FGD said that they gathered fire wood, they ranked it as least important. The potential effect that was often mentioned is summarized against each activity.

Table 4: Summary of potential effects of restrictions

	Main Activities of Women	**R-PP**	**Potential Effects**
1st	Gardening (*for market*)	*In directly*	We will not get *our own money*. Lose independence
2nd	Cash crops	Yes	Loss of property, wealth. Children's education
3rd	Rice farming	Yes	Hunger; there will be no food. Not possible
4th	Growing cassava	*In directly*	Not much. We don't eat a lot of cassava

5th	Fire wood	Yes	Starvation; how will we survive without cooking

5 Analysis

For this study I examined the role of women in deforestation and forest degradation in Liberia, as defined within the Liberian context. This was done by using the often cited drivers that are applicable to the Liberian context to investigate how women are involved or not involved in the activities associated with those drivers. This generated a list of activities that are common among women in the study area. Participants were then asked to discuss how those activities might be impacted by measures aimed at curbing deforestation and forest degradation, and consequently how that would affect women. This approach was based on the assumption that it is highly likely that REDD+ programs will affect those activities.

The drivers listed in the Liberian R-PP included logging, shifting cultivation, plantations and permanent agriculture, charcoal production and, mineral extraction and mining. Logging was further classified into extensive logging, over logging and hi-impact logging. The common activities of women that are linked to the drivers listed in the R-PP are gardening, cash crop cultivation, rice farming, growing cassava and firewood collection. Four of these are directly linked to farming or shifting cultivation and permanent agriculture. The fifth activity, fire wood collection is associated with charcoal production; both are the primary sources of domestic energy.

The analysis of the data generated during this study is carried out broadly within this framework and is focused on the four themes: the different uses of forest land and forest resources in the area; the priority activities in order of importance to women in the area and reasons for the prioritization; the activities that are common among women in the area; and how restrictions on those activities would broadly affect women in the area.

The different uses of forest land and forest resources in the area

The different uses of forest land and forest resources in the area include farming, hunting, logging, gathering medicinal plants, fire wood, and materials for building houses, growing vegetables and mining for gold and diamonds. These activities are not specifically linked to women rather they are general activities that involve men and women in the area. Although all women, participants in all four of the FGDs listed these activities including those regarded as exclusively for men with ease.

To ensure clarity, farming was further classified into different categories. These included growing rice, corn, various types of vegetables, and tubers all together at the same time. This was in fact what participants referred to as farming in the local context. Rice is the dominant crop and corn, vegetables and tubers are planted sparsely among the rice. It was therefore common for participants to refer to it as rice farming. The second category was often referred to as '*garden'* and not '*farm'*, because it did not involve growing rice. There are two types of gardens: one involves growing tubers (especially cassava) as the dominant crop, peanuts and a limited amount of pepper while the other type of garden is dominated by vegetables such as pepper, garden eggs, and okra. The garden is usually on the same plot of land that was used for growing rice; both in lowland (swamps) and highlands.

Depending on the farmer, the cassava may be harvested for up to two years. To do this, the mature roots of the cassava are carefully removed while it remains standing to allow for the small roots to mature for harvesting later. This was said to be common among those who grow cassava primarily for market. Similarly, the second type of garden that involves growing mainly vegetables for market is also carried out until the yields begin to drop significant. This can take up to three years or more depending on the techniques used by the individual farmer. Popular vegetables grown in the area include garden eggs, groundnuts, cucumbers and beans. Small holder cash crop farming, dominated by rubber and cocoa, is a relatively new phenomenon in the area.

The other common uses of forests and forest resources in the area include gathering firewood, medicinal plants or herbs and construction materials including round poles, ropes and thatch. Medicinal plants and herbs are not commercialized, although those treated may chose to give a token of appreciation to the herbalist, while thatch is still widely used to roof houses, even though many houses are being roofed with metal sheets. This suggests that there is already a move towards shifting from traditional roofing materials to imported materials; especially for those who can afford it.

Hunting was also reported to be common and that many people relied on bush meat for protein. But participants were quick to point out that there is no significant commercial bush meat trading, even though hunters do sell some of their kill to neighbors for income to buy other necessities. Like hunting, logging is not common in the area and the only company that operates there has a very small presence.

Priority activities in order of importance to women in the area

Participants ranked rice farming as the highest priority use of forest land that involved women. In all four sessions, participants were unanimous that rice farming is their main source of food. Rice is the staple food in the area. Growing vegetables for the market was also popular among participants. Gardening is very popular among women and participants constantly referred to it as their main source of income. When explaining why gardening was a priority for them, they emphasized two interrelated things: income and independence. That is, while they spoke of the income they got from selling produce from their gardens, they constantly made the point that the income was '*their own money*'. This underscored their appreciation of the role their personal income played in their lives; with some stressing that '*you don't have to depend on your man all the time*'.

Other cash crops such as rubber and cocoa growing was also ranked high because, according to participants cash crop '*you can leave with your children*' suggesting that it was a form of wealth that could be passed on to their children. Unlike the vegetables that are grown for shorter periods, rubber and cocoa last for more than twenty-five years, depending on how well the farmer tends to them. Participants also said that cash crop farming is relatively new, became popular after the Liberian civil war, and is mainly promoted by NGOs. This suggests that part of the reason for ranking cash crop farming as a priority activity may be based on expectations about potential income from the venture.

Hunting is regarded as a priority activity and important to women because it is the only source of bush meat, which is important as a source of protein. Participants noted that even though there were few hunters, and almost all of them hunted bush meat for their own consumption, they also sold surpluses to neighbors.

Participants demonstrated a low level of appreciation for logging, mining and fire wood collection. This may be because of a variety of reasons including not being directly involved. Fire wood collection, although regarded as significant because without it they couldn't cook their meals, was regarded as unimportant because of its abundance and also because this was a routine activity. In the case of logging, it may be because the logging company that operates in the area is not particularly viable or because participants do not see any direct benefit of its operation. Similarly, mining was ranked the least because participants have not experienced direct benefit from the activity.

The most common activities among women in the area

Five out of the ten common uses of forests and forest resources were listed as being common among women. Gardening is regarded as the most common activity among women, which may be linked to its relatively high level of importance to women in terms of income and independence. Gardening was followed by cash crop, which involves

different roles and responsibilities for men and women in the household. Although not particularly limited to women, as in the case of gardening, participants suggested that women were often the ones that insisted on the family getting involved. Challenged to defend their decision to include this as a common activity for women, participants pointed out that as in the case of rice farming, they work side-by-side with their husbands or partners.

Growing cassava and fetching firewood were considered common among women, but they were not regarded as important to women. On the other hand hunting, logging and mining were constantly referred to as '*men work*' and none of the participants were directly involved in them. Also only a limited number of participants said that women gathered medicinal plants, but all participants agreed that the activity was not common among women. Women use herbs to treat common ailments but they regarded it as routine because anybody could do it. They clarified that most of the traditional healers or herbalists are men. Women also did not normally participate in gathering building materials from the wild.

How restrictions on those could affect women in the area

The main concerns were income and independence. Participants were particularly concerned that restriction on income generating activities would affect women both in terms of lost income and the independence that come with the income. In fact, the concerns about independence ranked higher than all other concerns about the potential effects of restrictions on the activities that were identified as being common among women. Gardening for example, which participants rely on for income, was often used to demonstrate how restrictions on income generating activities would adversely affect them. Although gardening is not specifically listed in the R-PP it often precedes initial rice farming.

Other concerns about the potential effects of restrictions that could lead to loss of income was more about loss of property or wealth, possibly reducing their ability to pay for children's education, and to cater to the general welfare of the family, than it was about themselves – as in the case of loss of independence. For example, asked how restrictions on cash crop farming would affect them, they asked instead: '*how will we send our children to school?*'

What was most interesting was that participants seemed first concerned about loss of independence and wealth or property before survival. All the participants felt that restrictions on farming activities could lead to food insecurity. This may however be because many considered it impractical and not necessarily because first two concerns were more important. For example, many respondents laughed at the prospect and said they think it was '*not possible*' to restrict farming.

6 Conclusions and Recommendations

Deforestation and forest degradation contribute to carbon emission with consequences for the climate. Given the global focus on the question of how to tackle climate change and the roles that tropical forests could play in mitigating climate change, some argue in favor of aggressive measures to address deforestation and forest degradation. REDD+ is one of the concepts being promoted by corporations, big conservation NGOs and developed countries. One of the pillars of the concept is to provide economic incentives for countries with forest, and indirectly to forest dependent peoples and forest resource users, and in return secure their support to keep forests standing. However, there remain significant differences between countries about how to incorporate an agreement on forests in a post-Kyoto agreement, and how that would be financed.

Although many stakeholders agree that implemented effectively and equitably, REDD+ could indeed contribute to efforts to reduce global carbon or greenhouse gas emissions, skeptics warn that many forested countries in the tropics lack the governance

arrangements that would make this possible. Corruption in the forest sector, weak institutional capacity, the lack of or poorly defined institutional arrangements to facilitate meaningful participation of forest peoples in forest related decision-making are some of the manifestations of weak governance that critics and skeptics often cite. Liberia's REDD+ Readiness Preparation Proposal already identifies major livelihood and income generation activities of those living in poverty, including women, in forest communities as drivers of deforestation. The possibility that implementing REDD+ programs in Liberia might involve restrictions on some of those activities and hence impact on the income generation capacities of those in areas targeted for REDD+ projects, are a cause for concern.

This is particularly of concern because local populations rely mainly on forests for their overall wellbeing. Forest land and forest resources in the area are used for farming, gathering medicinal plants and construction materials. Mining is also a major income generation activity in the area. Except for mining, these are general activities that involve men and women in the area.

Gardening, which is one type of farming in the area, is of particular significance to women as it is their primary source of income and a major pillar of their *independence*. Other major income generation and livelihoods activities of women include cash crop cultivation and rice farming. As articulated by respondents, these activities have major social and economic significance for women, both of which are intrinsically linked. For example, incomes from these activities are not just critical as means for women to contribute to meeting their families' needs rather, as foundations for their independence (or sense of independence) they contribute to women's sense of self-esteem. Furthermore, they are able to carry themselves with pride and dignity as members of their communities capable of catering to their own needs and the overall wellbeing of their family. They also contribute to removing the conditions that make the intergenerational transfer of poverty possible as they can invest in proper or quality education for their children while catering to their health and overall wellbeing.

As all of the activities that women rely on for their overall wellbeing are listed in Liberia's R-PP as drivers of deforestation, suggesting the possibility that they could come under threat or some form of restriction as part of REDD+ implementation in Liberia, stakeholders (not women alone) should take a step back and rethink the national REDD+ agenda. Using the situation of women as an indicator of how REDD+ implementation, based on the current thinking behind the concept or at least laid out in Liberia's R-PP, Liberians should reflect long and hard about what REDD+ should mean for Liberia before embarking on a process of developing implementation strategies.

To initiate such discussion the following recommendations are proffered:

1. Liberian stakeholders should work together to define a national REDD+ agenda rather than adopting scripts produced by consultants using knowledge from different country contexts. This should involve going back to the basics, debating and agreeing on whether deforestation is a problem in Liberia or whether it is the inevitable outcome of our life-styles including consumption patterns, modernization of our communities, and the livelihood choices available to the overwhelming majority of the Liberian population. Based on the response to this question stakeholders can then consider whether deforestation should be tackled as a problem on its own or a situation that should be addressed as an integral element of a broader rural development agenda that is built on the principles of sustainable development.

2. Given the potential negative impacts of poorly conceived and developed REDD+ programs could have on forest dependent peoples, especially women, it is crucial that such programs are an integral element of a comprehensive rural development agenda; one that is founded on the principles of equity, fairness, and inclusion. As noted above, this has to be developed with deep understanding of the local context and driven by local and national stakeholders. Program design and implementation

driven by external consultants, as is prevalent in current development interventions, is not likely to succeed.

3. To ensure that a the paradigm for forest management in Liberia provides for an inclusive approach, the roles of all stakeholders, especially women, in the governance, management, exploitation and use of forests and forest resources should be thoroughly interrogated and understood. This should go beyond the traditional superficial analysis and poor attempts at reconfiguring community level and national forest governance institutions, to ensure a proper balance of power or at least encourage steps towards realizing a proper balance of power between men and women in these institutions. Although reorienting these structures and actually having them functional will take time, a major leap of faith will ultimately do more to change the current structures than a piece-meal approach that is often adopted to appease donors and women rights advocates.

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