

## **Assessing the Viability of Community Forestry Management (CFM) for Achieving REDD+ Goals: the case of Kilum-Ijim, Cameroon**



Lake Oku and the Kilum-Ijim forest<sup>1</sup>

*Lund, the 16<sup>th</sup> of May, 2011*

**Thesis submitted in partial fulfillment of the requirements for the degree of Master of Science  
LUMES International Master's Programme in Environmental Studies and Sustainability Science**

**By: Tesfom Tecleab Solomon**

[tesfomsolomon@gmail.com](mailto:tesfomsolomon@gmail.com)

**Supervisors:**

**Torsten Krause**

PhD Student, Member of LUCID Research School

[torsten.krause@lucsus.lu.se](mailto:torsten.krause@lucsus.lu.se)

**Anna-Karin Bergman (PostDoc)**

PhD in Sociology of Law, Lund University

[anna-karin.bergman@lucsus.lu.se](mailto:anna-karin.bergman@lucsus.lu.se)

---

<sup>1</sup> Source: [http://www.freebase.com/view/en/kilum-ijim\\_forest](http://www.freebase.com/view/en/kilum-ijim_forest)

## **Abstract**

Climate change associated with human influences such as land-use change through deforestation has potential consequences on socio-economic dimensions of society. This is particularly relevant in the tropical developing countries – often having lack of sufficient regulating rules – where deforestation is mainly induced by agriculture expansion for higher income generation. REDD+ (Reduction of Emissions from Deforestation and forest Degradation, and sustainable management of forest and conservation and enhancement of forest carbon stocks) initiative offers incentives to these countries to address their historical deforestation challenges. Achieving REDD+ goals require environmentally effective, economically efficient, equitably distributed and politically feasible impacts. There are, however, critical challenges concerning REDD+ projects' implementation at local levels that involve forest-dependent communities. REDD+ goals may thus be potentially achieved through promoting or better designing Community Forestry Management (CFM) success factors under future REDD+ policy objectives. Thinking in this line, the research assesses the CFM in the Kilum-Ijim area – a community managed forest situated in the Northwest region of Cameroon. The CFM is assessed drawing on four clusters: biophysical; user-group related; institutional arrangements; and contextual factors. The research, using qualitative methods, applies a single case study principle and utilizes CFM primary and secondary data. In so doing, this research aims to contribute to an overall scientific understanding of this emerging REDD+ regime on this topic. Results in the study area context show that there are potential CFM success factors related to the resource system and user-groups. Nevertheless, there are substantial concerns regarding institutional arrangements and contextual factors. This paper concludes that communities (user-groups) are likely to manage their forest resource under the future REDD+ through better design of the CFM success factors provided that REDD+ related policies address those concerns though there are limitations.

**Key words:** Cameroon, Kilum-Ijim, CFM, success factors, REDD+, resource system, user-group related, institutional arrangements, contextual factors.

**Word count:** 14, 933

## **Acknowledgments**

Firstly, I would like to thank Torsten, for his patience, and tireless efforts to read my drafts, to forward inspiring reading materials, and provide constructive comments and critiques. I would also like to thank Anna-Karin for her useful comments. I am immensely grateful to Mr. Tah Kennette Konsum for his endless support in providing critical information about the study area. I'm also indebted to Yengoh Genesis for introducing me with Kennette; for preparing the study area location map, and his moral support and sharing of ideas.

I am immensely indebted to Ola Sjodin family in Dalby for their support and generosity during the difficult moments. LUMES mates, thank you all for your kindness and considerations. I would also like to thank my Eritrean friends, and families in Lund for their valuable support.

Lastly, and not least, my family, particularly my beloved mother, I have no words to express my gratitude for your unconditional and continuous support and sacrifices you paid over the years. Thank you mom, this work is dedicated for you!

*Tesfom Tecleab Solomon*

*May 2011*

<b>Table of content</b>	<b>Page Number</b>
<i>Abstract</i> .....	2
<i>Acknowledgements</i> .....	3
<i>List of figures</i> .....	5
<i>Acronyms</i> .....	5
<b>1. Introduction</b> .....	<b>7</b>
<b>1.1. Motivation</b> .....	10
<b>1.2. Research questions</b> .....	10
<b>1.3. Limitations of the study</b> .....	10
<b>2. Background</b> .....	<b>11</b>
<b>2.1. Cameroon</b> .....	11
2.1.1. Land use in Cameroon.....	11
2.2.2. Deforestation in Cameroon.....	12
2.2. REDD+: Emphasizing the Cameroon Context.....	13
<b>2.3. The study area context: the Kilum-Ijim area</b> .....	16
<b>3. Research Processes</b> .....	<b>19</b>
<b>3.1. Analytical approach</b> .....	19
<b>3.2. Research Methodology</b> .....	20
3.2.1. Research Design.....	20
3.2.2. Data collection Strategy.....	21
<b>4. Community Forestry Management (CFM)</b> .....	<b>22</b>
<b>4.1. Introduction</b> .....	22
<b>4.2. CFM Lessons learnt in the context of the Kilum-Ijim area</b> .....	23
<b>5. Analysis of CFM success factors using the analytical approach</b> .....	<b>24</b>
5.1. Resource system .....	24
5.2. User-group related.....	25
5.3. Institutional factors.....	27
5.4. Contextual factors.....	29
<b>6. Discussion</b> .....	<b>30</b>
<b>7. Conclusion</b> .....	<b>36</b>
<b>8. Further research highlight</b> .....	<b>38</b>
<i>Bibliography</i> .....	38
<i>Appendix I – Interview guide</i> .....	43
<i>Appendix II – The Kilum-Ijim forest:</i>	
A. <i>Source of substantial livelihood to user-groups in Kilum-Ijim</i> .....	44
B. <i>home to significant and unique biodiversity</i> .....	44
<b>List of figures</b>	
Box 1           CFM experiences in conflict resolution, trust building and collective actions.....	23
Figure 1       Cameroon forest zoning plan – the PFD and NPFD.....	12
Figure 2       (A) 3D image of the Kilum-Ijim area, (B) The Kilum-Ijim forest boundary.....	24
Map 1           Map of Africa, Cameroon, and Kilum-Ijim.....	17
Table 1         Differences between CFM and REDD+.....	9
Table 2         The general characteristics of CFM success factors.....	19

**Acronyms - abbreviations**

<b>AWG-LCA</b>	Ad Hoc Working Group on Long-term Cooperative Action
<b>AFF</b>	Annual Forest Fee
<b>CBNRM</b>	Community-based natural resource management
<b>CDM</b>	Clean Development Mechanism
<b>CFA</b>	Cameroonian currency
<b>CFM</b>	Community Forestry Management
<b>CFs</b>	Community Forests
<b>COMIFAC</b>	Central African Forest Commission
<b>EMU</b>	Ecological Monitoring Unit
<b>FMI</b> s	Forest Management Institutions
<b>FCPF</b>	Forest Carbon Partnership Facility
<b>FPIC</b>	Free and Prior Informed Consent
<b>GESP</b>	Growth and Employment Strategy Paper
<b>GTZ</b>	German Technical Cooperation Agency
<b>IFAs</b>	Illegal forest activities
<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>KfW</b>	German Development Bank
<b>LULUCF</b>	Land Use, Land-Use Change and Forestry
<b>M ha</b>	Million hectare
<b>MINEF</b>	Ministry of Environment and Forests
<b>MINEP</b>	Ministry of Environment and Nature Protection
<b>MINFOF</b>	Ministry of Forestry and Wildlife
<b>MRV</b>	Monitoring, Reporting and Verification
<b>NPFD</b>	Non Permanent Forest Domain
<b>PES</b>	Payments for Environmental services
<b>PFD</b>	Permanent Forest Domain
<b>PIC</b>	Prior Informed Consent
<b>REAP</b>	Reduced Emissions Agricultural Policy
<b>REDD+</b>	Reduction of Emissions from Deforestation and forest Degradation and Sustainable Management of forest Conservation and Enhancement of forest carbon stocks
<b>R-PIN</b>	Readiness Plan Idea Note
<b>RSDS</b>	Rural Sector Development Strategy
<b>SBSTA</b>	Subsidiary Body for Scientific and Technological Advice
<b>SOPISDEW</b>	Society for the Promotion of Initiatives in Sustainable Development and Welfare
<b>TOU</b>	Technical Operations Unit
<b>UN-REDD</b>	United Nations - REDD Programme
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>3Es+</b>	Effectiveness, Efficiency, Equity and co-benefits



## 1. Introduction

The issue of climate change seizes a frontline in international discussions. Likewise, REDD+ holds a key position in the international arena as part of these discussions. REDD+ stands for reduction of emissions from deforestation and forest degradation, and the (+) stands for sustainable management of forest conservation and enhancement of forest carbon stocks (Parker et al., 2009). REDD+ has received greater attention because it builds on issues that have already gained momentum at international level. For example, climate change debates and negotiations in the Kyoto Protocol with regards to climate change mitigation and adaptation measures, e.g., the Clean Development Mechanism (CDM) as well as inclusion of forests and Land Use, Land-Use Change and Forestry (LULUCF).

Climate change is a threat in many ways to both developed and developing countries. According to the Nations Framework Convention on Climate Change (UNFCCC), for instance, a 2°C rise in temperature is expected to cause up to 30 per cent species extinction (UNFCCC, 2007). Developing countries are, however, more vulnerable to adverse effects of climate change. The burden of climate change will have more consequences on the poor and vulnerable class of societies. For example, frequent extreme weather events due to climate change will further increase the vulnerability of farmers in Africa (IPCC, 2001). Besides, increases in extreme weather events will have consequences linked to environmental and socio-economic dimensions (Stiglitz et al, 2009). Due to reduced habitat coupled with other human induced pressure, almost 50 per cent of the total African biodiversity is at risk (Boko et al. 2007, cited in UNFCCC, 2007). Human induced pressure is attributed to land-use change caused by agriculture expansion, which will in turn cause immediate habitat loss; high rates of land use change; and population growth among others (UNFCCC, 2007). It is estimated that human influence on forest and associated land use changes roughly accounts to 17% carbon emissions (IPCC, 2007, cited in FAO, 2010a).

Deforestation in tropical African countries is a major challenge due to land-use transformation for agricultural produce, infrastructure extensions and exploitation of forest resources (Geist and Lambin, 2001). This is because, agricultural land can generate high income through shifting cultivation and intensification particularly in tropical developing countries that have fertile land but often lack sufficient regulating rules (Costenbader, 2009). Besides, *the Global Forest Resources Assessment 2010, based on its Main Report* (FAO, 2010a) described that the rate of deforestation in Africa was slowing down; however, the overall rate is highly alarming due to fuelwood collection driven by an increase in population growth. According to the report, the rate slowed down due to tree planting interventions initiated in regions such as West and North Africa to halt desertification; attempts to secure energy and non-energy (industrial) source of wood, and increases in forested areas designation for biodiversity conservation such as in Central and East Africa (FAO, 2010a).

In order to combat climate change impacts, and particularly to halt deforestation, there have been attempts to address land-use transformation through mitigation and adaptation measures. REDD+ is a recent climate change mitigation initiative. REDD+ initiative offers countries incentives to address their historical challenge of deforestation (Parker et al., 2009).

REDD+ may potentially play a key role in mitigating climate change. This is because globally, about 30% of the Earth's land surface is covered by forest; in 2005 it was estimated that the total amount of carbon sequestered in forests reach around 638 Giga ton (Gt), which is more than that of the entire atmosphere (FAO, 2005). And that REDD+ values the carbon sequestered in forests for its climate regulating benefits (Lawlor and Huberman, 2009). On the other hand, the rate of deforestation, due to conversion of forests for agricultural activities, has been estimated 13 million hectares each year between 1990 and 2005, and that about 5.8 GtCO<sub>2</sub>/yr of global greenhouse gas emissions in the 1990s is attributed to deforestation (FAO, 2005).

Besides, according to the Intergovernmental Panel on Climate Change (IPCC) estimate, land-use change contributes 1.6 GtCO<sub>2</sub>/yr, in which tropical deforestation is major contributor due to expansion of agricultural encroachment and forest resource extraction by humans in distant and previously unaffected old growth tropical forests (see Denman et al., 2007). However, REDD+ aims to keep forests than to be cleared for agricultural and timber production (Lawlor and Huberman, 2009). Furthermore, using the existing cost effective emissions trading schemes (see Stern, 2006) in the context of REDD+ could be appealing to address climate change concerns.

Nevertheless, there are serious challenges on the implementation of REDD+ projects at local level, especially with regards to forest-dependent peoples (see Agrawal and Angelsen, 2009). Forest-dependent communities have inhabited and managed tropical forests for centuries as stewards of forests (Anaya, and Crider, 1996 cited in Morgera, 2009). Previously, it was believed that resource users overuse a resource based on an individual and anonymous decisions that suits their own short term benefits and thereby contribute to an eventual collapse of the resource system (see Hardin, 1968). Whereas, recent findings on multiple disciplines claim that resource users can sustainably manage their resources (Ostrom, 2009, 2007). For example, if local communities acquire legal Community Forestry Management (CFM) ownership, and are supported by effective legal instruments (Cotula and Mayers, 2009), they may sustainably manage their resources as the case of Nepal (Kanel, 2007, referenced in Morgera, 2009).

However, 'large, poor, heterogeneous groups of forest users living in an unstable socio-economic, political and natural environment are unlikely to prove good candidates' for CFM or REDD+ related projects (Agrawal and Angelsen, 2009: 209). This is because, indiscriminate implementation of CFM or REDD+ projects at local level may undermine the success of such projects. i.e., if the success of REDD+ projects heavily depends on the involvement of such groups, there could be concerns related to: effectiveness of carbon sequestration, implementation costs and equitable benefit distribution (Agrawal and Angelsen, 2009). On the other hand, insecure title to land, forest and carbon ownership and rights; lack of access to information; and high risk of elite capture may have negative implications among others (see Peskett et al., 2008: 6-8). Hence, it is crucial to address these concerns before REDD+ projects implementation processes begin. Here is where the thrust of this paper lies; to critically analyse the factors that define the candidacy of forest-dependent communities and relevant REDD+ concerns at local level.

Both CFM and REDD+ are generally concerned with conservation and sustainable use of forest resources and services. However, they differ in many ways including: their goals; incentives; scales of governance; and types of enforcements they envisage among others. The following table (see table 2 below) summarizes such differences.

Table 1. Differences between CFM and REDD+.

<b>CFM</b>	<b>REDD+</b>
non incentive based	incentive based
it could be locally or nationally initiated or externally sponsored in collaboration with government	international climate change mitigation mechanism based on programs established at the national level or through private initiatives
envisages sustainable management of forests and forest resources	envisages reductions of emissions from deforestation and degradation; through sustainable management of forests; conservation of natural resources (including belowground biomass and forest carbon stock enhancement); and aims to achieve permanence of mitigation actions; and avoidance of leakage
rights of indigenous peoples and members of local communities are often overridden by other interests	rights and indigenous peoples and members of local communities is well recognized under the UN-REDD, and World Bank FCPF
often lacks robust participation of local indigenous communities	strives for robust participation of local and indigenous communities as in the UN-REDD or World Bank FCPF agenda
often fails to recognize roles of local communities and erodes locally designed rules; does not necessarily involve technology and knowledge transfer from external stakeholders to local communities	recognizes roles of local communities and respects locally designed rules as traditional and indigenous knowledge under the UN-REDD or World Bank FCPF agenda; prerequisites technology and knowledge transfer from external bodies to local communities
often lacks strict forest management; monitoring; and enforcement to sanction rule violators and exclude outsiders (e.g., government officials)	requires strict forest management; MRV; and enforcement including sanctioning of rule violators and exclusion of outsiders, e.g., government officials from sharing community REDD+ benefits
often lacks equitable benefit distribution of revenues generated from forest resources and services	strives for achievement of the 3Es+ (Equity, efficiency and effectiveness and the co-benefits)
does not involve carbon-market	considers carbon-market as well as volatility and unpredictability of carbon prices, e.g., at international market-level
often lacks good governance, institutional arrangements including adjudication rules and levels of local autonomy	aims for good governance, institutional arrangements including adjudication rules and levels of local autonomy

Source: prepared by author based on information drawn from Agrawal and Angelsen (2009); FAO (2010); and UNFCCC (2010).

## 1.1. Motivation

Cameroon has no legislation that governs REDD+; the pilot projects operate through available policy and legislative rules of the country on natural resources as well as international climate agreements and strategies (Sama and Tawah, 2009). Besides, Community Forests are not included under the current national REDD+ strategy of the country (see Dkamela, 2010; Robiglio, 2010; Sama and Tawah, 2009). In addition, as REDD+ projects' experiences in Cameroon demonstrate, forest-dependent communities are potentially at risk due to the existing benefit-sharing frameworks, in which the bulk of the revenue generated from REDD+<sup>2</sup> pilot projects has been directed into activities and programs run by the state with very low percentage allocated to forest-dependent communities (Costenbader, 2009). The national REDD+ readiness plan activities in Cameroon, including that of FCPF, lack effective performance to ensure forest-dependent communities' participation; fall short of addressing the critical issues of land tenure, carbon rights and benefit sharing (Freudenthal et al., 2011).

The overall purpose of this research is thus to assess REDD+ in the context of Cameroon, focussing on local level issues that concern forest-dependent communities. In so doing, the research strives to contribute to an overall scientific understanding of this emerging topic with an African case study. The paper assesses a CFM and aims to demonstrate that adopting or better designing CFM success factors in the context of REDD+ policy framework is key to achieving REDD+ goals in the context of Cameroon and perhaps elsewhere. This argument goes in line with the scholars of the commons resource currently claiming that CFM can help achieve the objectives of REDD+ initiatives through better addressing the 3E+<sup>3</sup> and that REDD+ designers shall benefit from heeding the lessons from CFM (see for example Agrawal and Angelsen 2009). In order to accomplish this, the study focuses on CFM in the Kilum-Ijim area – a community-managed forest located in the Northwest region of Cameroon.

## 1.2. Research questions

- What circumstances determine the viability of communities' involvement under the existing CFM?
- How can better design of the CFM success factors enhance communities' involvement under REDD+?

## 1.3. Limitations of the study

Accessible data about the CFM in the study area is available only from 2001. Hence, primary data collection through interview during the writing of this paper was found to be essential in order to have upto date information about the CFM in Kilum Ijim during the last 10 years. Thus, the author intended to conduct field work but due to lack of funding, the idea did not materialise. In this case, structured interview or survey data collected through self-completion questionnaire would have been appropriate for credibility, simplicity of data analysis, and direct comparison and easy aggregation of responses (Bryman, 2008; Mikkelsen, 2005). However, this approach was not

---

<sup>2</sup> Note: in this argument, Peskett et al. (2008) refers to REDD without the (+), this paper, however, makes use of scholars' REDD arguments in the context of REDD+ when necessary.

<sup>3</sup> 3E+ represents – effectiveness, efficiency, equity and co-benefits.

taken due to time limitations related to potential low response rates and the risk of having poor quality data if respondents misunderstand the questions (see Bryman, 2008). Therefore, semi structured interviews with open ended questions – more specifically focussed interviews that target key respondents (Mortens et al., 1956, cited in Bryman, 2008) – were used, and the interviews were conducted by a representative from the study area. This method could have negative implications that arise from probing or prompting (Bryman, 2008) and various interpretations that involve the representative. This is because in semi-structured interview, questions are asked based on flexibility checklist and not from standardized questionnaire (Bryman, 2008; Mikkelsen, 2005).

Nonetheless, the representative is an educator and development volunteer coordinator for a non-profit organization named – Society for the Promotion of Initiatives in Sustainable Development and Welfare (SOPISDEW)<sup>4</sup>. This organization involves in providing CFM related technical assistance to communities in Kilum-Ijim. Thus, the representative (having a prior-experience in interviewing CFM related issues) is well-informed about the CFM in the study area context and also has a general know-how about REDD+ in the context of Cameroon. The interview questions that target key respondents (see section 3.2.2) were initially prepared by the author on his own interest based on the secondary data about the CFM. And the questions were asked by the representative using similar wording to key respondents (Bryman, 2008). Therefore, the relevance of the interview questions prepared by the author and the data collected through the semi-structured (focused) interviews by the representative were carefully maintained to the maximum degree.

## **2. Background**

### **2.1. Cameroon**

Cameroon is located in the west-central coast of Africa and covers a total of 466.326 km<sup>2</sup> surface area (de Wasseige C., 2009: cited at Robiglio et al., 2010) (see Map 1). It lies between latitudes 2° and 13° N – extended up to around 1,200 km - and longitudes 8° 30' and 16° 10' E, in which the largest extent of the country is situated within the altitude ranges of 200-800 metres above sea-level. In the northern part including the area bordering Lake Chad, Cameroon is characterized by Sahelian Savannah, whereas the centre represents a high altitude moist savannah and in the south a dense tropical rainforest (Robiglio et al., 2010). The population of Cameroon is approximately 18 Million, and predicted to reach 25 Million in 2020 (see Robiglio et al., 2010).

#### **2.1.1. Land use in Cameroon**

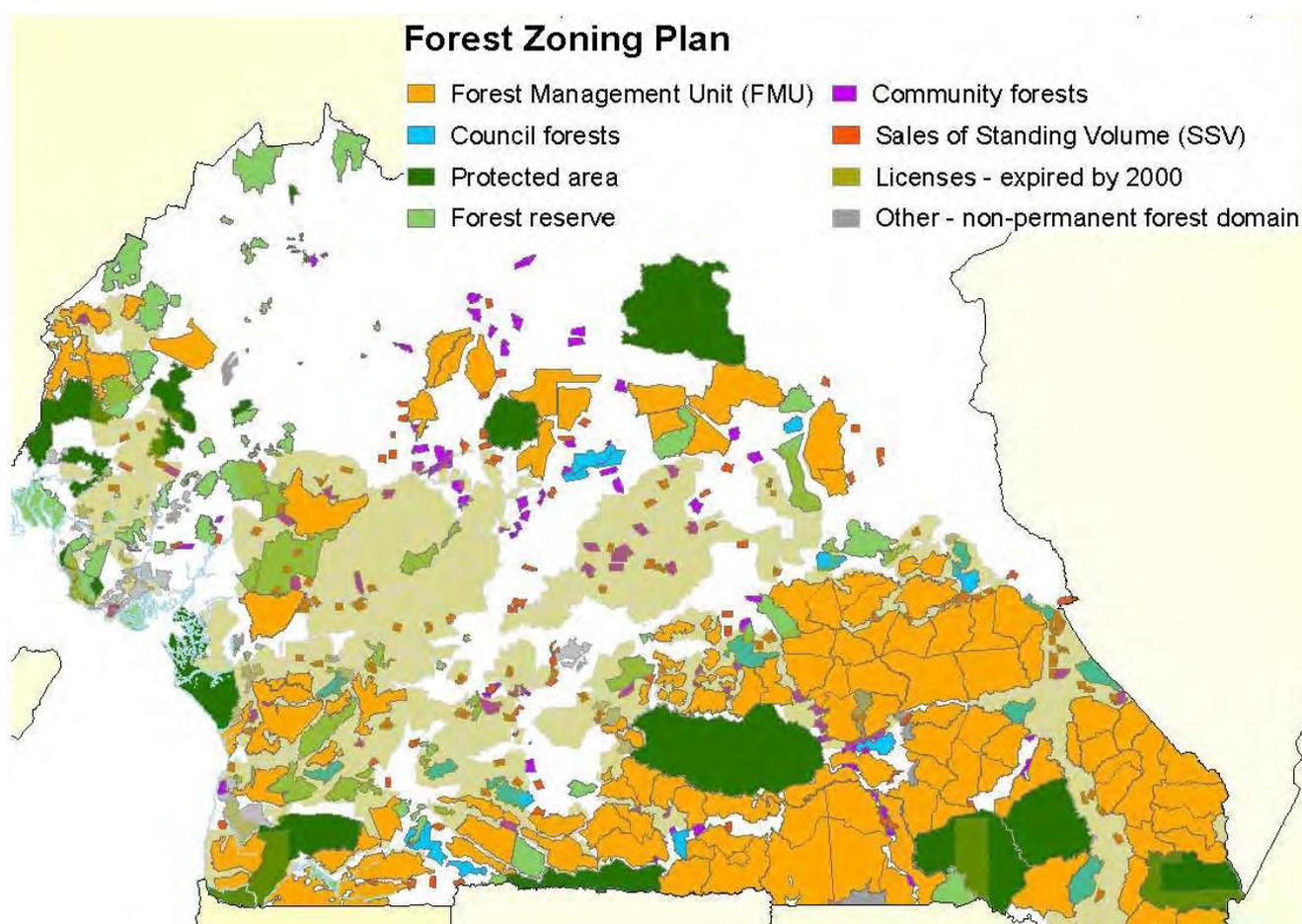
According to the Forest Code (Law N.94/01, Art. 22), approved January 20th 1994, the country has two major national forest zones; the Permanent Forest Domain (PFD) and the Non Permanent Forest Domain (NPF) designed by the Minister of Forestry and Environment (Dkamela, 2010; Sama and Tawah, 2009) see figure 1 below. This forest code claims 30% (approximately 12 M ha forestland) of the country – comprising protected and reserved areas as well as production forests (Forest Management Units, FMU; and Council Forests) – as PFD

---

<sup>4</sup> See the link to the organization: <http://sopisdew.community.officelive.com/default.aspx>

which is a state owned forest (Robiglio et al., 2010). The PFD in this case refers to forest areas that are not object to conversion into other land uses such as agriculture or infrastructure. On the contrary, the NPF (approximately 6 Million hectare, Mha) represents forestland where land conversion into non forest uses is legally permitted (Dkamela, 2010); e.g., industrial plantations, and mining grants (Robiglio et al., 2010). The NPF comprises (see figure 1): Community Forests (CFs) where legal timber harvest is recognized; Sale of Standing Volumes (SSV) that are small-scale forest concession that last from three months upto maximum three years; Licenses-expired by 2000 that are forest concession granted to licensed companies before the enactment of *the 1994 forestry law* and that such forest areas are already deforested; other-non-permanent forest domain is made of rural mosaic area that is made of fields, fallows, secondary forests and remnants of old growth forests (see Robiglio et al., 2010).

**Figure 1.** Cameroon forest zoning plan; the left side on the legend represent management units in the PFD and the right side are the Management units in the NPF. Source: Robiglio et al. (2010).



### 2.1.2. Deforestation in Cameroon

The average rate of deforestation in Cameroon is relatively low as in the Congo Basin in general (Cerutti et al., 2008). However, the local dynamics of deforestation is alarming. Four out of 16 hotspots of deforestation and degradation realized in Central Africa are located in Cameroon (Dkamela, 2010; Robiglio et al., 2010). The major

cause of deforestation and degradation in Cameroon is land use change (Robiglio et al., 2010), in which agriculture expansion and wood harvest are two main direct drivers (Dkamela, 2010). Agriculture is accountable for more than 80 % forest cover loss (CARPE, 2005, cited at Cerruti et al., 2008; Robiglio et al., 2010), specifically slash-and-burn (see Robiglio et al., 2010). Deforestation related to fuelwood collection (Cerruti et al., 2008), illegal harvesting and corruption by government officials (Pye-Smith, 2010) and industrial logging (Dkamela, 2010) are also serious concerns. There are various underlying causes of land use change in Cameroon. Higher population growth (Cerruti et al., 2008), market expansion (Robiglio et al., 2010) and infrastructure extension, specifically roads and railways (REDD Cameroon Pilot Project, 2009, cited at Dkamela, 2010) are most accountable. The underlying causes of deforestation and degradation are also related to contextual factors at macro level. Drawing on such studies, Dkamela (2010) describes various degrees of pressures on forests linked to macro-economic, agricultural and finance sectors' policy interactions, and raw material prices at global market levels.

## 2.2. REDD+: Emphasizing the Cameroon Context

Following the outcomes of the Copenhagen Accord and the present advancement under the UNFCCC, REDD+ is gaining momentum as a crucial post-2012 international climate regime as a mechanism for climate change mitigation efforts in developing countries (Corbera et al., 2010b). At COP 15 in Copenhagen, there was no formal binding agreement reached (FAO, 2011). However, the importance of forests as potential carbon sinks was well recognized, and the COP president further underlined the “need to provide positive incentives to such actions through the immediate establishment of a mechanism including REDD-plus,” and urged developed countries to mobilize financial resource (UNFCCC, 2009: 2). The potential of REDD+ is widely accepted and governments have already provided large financial resource to start up pilot projects (FAO, 2011).

At COP 16 (held in December 2010 in Cancún, Mexico) it was accorded by the Ad Hoc Working Group on Long-term Cooperative Action (AWG-LCA)<sup>5</sup> to forward a REDD+ text<sup>5</sup> to the UNFCCC for adoption as in (FAO, 2011: 61): “the scope, principles and safeguards for REDD+,” and was designed “in a step-wise fashion from pilot activities to full-fledged REDD+ implementation”. In order to enhance benefits and circumvent negative effects of REDD+ related activities, the COP also considers the importance of safeguards. The safeguards include as in FAO (2010: 61): *consistency with existing forest programmes and international agreements; forest governance; rights of indigenous peoples and members of local communities; participatory approaches; conservation of natural resources and biological diversity; permanence of mitigation actions; and leakage*. A major issue to be addressed at a future COP level is regarding the financial modality of REDD+ activities. The UNFCCC has to decide whether it will be market-based, fund-oriented or a combination of the two (UNFCCC, 2010). The Subsidiary Body for Scientific and Technological Advice (SBSTA) is dealing with the issues of Monitoring, Reporting and Verification (MRV) methodological approaches to provide guidance based on the IPCC principles (FAO, 2010).

<sup>5</sup> The text negotiated and issued at COP-16 that represent the scope of the REDD+ includes the following points as in UNFCCC (2010: 13): (a) Reducing emissions from deforestation; (b) Reducing emissions from forest degradation; (c) Conservation of forest carbon stocks; (d) Sustainable management of forest; (e) Enhancement of forest carbon stocks.

The rationale behind REDD+ is that; it facilitates financial compensation to developing countries based on their willingness and ability to reduce their rate of deforestation (Scholz et al., 2008). However, the challenges of REDD+ regime are multiple: e.g., land tenure, secure forest and carbon rights (Corbera et al., 2010b); forest governance, equitable benefit sharing, and incorporation of adaptation measures into climate change policies and projects (FAO, 2011); capacity building, constitutional (e.g., legal and policy framework designs) arrangements (Costenbader, 2009) are the major challenges of the REDD+ regime.

The relevant national level challenges and the associated local level concerns will be explained in the following sections emphasizing on Cameroon. Cameroon started to engage in REDD+ activities initially after COP 13<sup>6</sup> that was held in Bali in December 2007. In 2007 Cameroon engaged in a pilot project initiated through a joint collaboration of the German Technical Cooperation Agency (GTZ) and the Central African Forest Commission (COMIFAC) that aimed at identifying the potential loss of carbon biomass using scientific approach within the REDD framework (Westholm et al., 2009). This initiative will continue upto 2012 (Sama and Tawah, 2009). Since then, and more recently after the Copenhagen conference in COP 15, Cameroon has been working to accommodate the REDD+ initiative in their national development plans.

Currently, Cameroon is also cooperating in REDD+ pilot project with the German Development Bank (KfW) (Sama and Tawah, 2009). In total, there are nine REDD+ pilot projects in the country (Freudenthal et al., 2011). Overall, it is reported that Cameroon has been keenly engaging in REDD+ Pilot projects operation since 2007 and has reportedly accomplished organisational and technological progress – aiming at facilitating the REDD+ readiness national strategy (REDD+ Pilot Project Cameroon, 2010). So far the country has achieved monitoring and estimation of deforestation, forest degradation, and carbon stock, organization of REDD+ steering Committee at national level through technical and financial support from international agencies (Sama and Tawah, 2009).

Cameroon is partner to the World Bank REDD+ initiative – the Forest Carbon Partnership Facility (FCPF). The country has submitted its Readiness Plan Idea Note (R-PIN) to the FCPF on the 31<sup>st</sup> of August 2008, and presently implementing field projects jointly with other organizations, in which the REDD+ project operates mainly from Yaoundé and Ebolowa<sup>7</sup> (Sama and Tawah, 2009). The Ministry of Environment and Nature Protection (MINEP) in collaboration with the Ministry of Forestry and Wildlife (MINFOF) are responsible for coordinating the national REDD+ activities (REDD+ Pilot Project Cameroon, 2010). MINEP is a national focal to the UNFCCC and it hosts Ecological Monitoring and Control Unit (Sama and Tawah, 2009). There are many challenges with regards to REDD+ in the context of Cameroon.

---

<sup>6</sup> The Bali Action Plan at COP 13, the (UNFCCC, 2007: 3) passed a resolution (b) in paragraph III– “Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries;” which is currently termed as REDD+ that considers maintenance and enhancement of forest carbon stocks beyond deforestation and forest degradation.

<sup>7</sup> Yaoundé is the capital city of Cameroon, and Ebolowa, a major city in Southern Cameroon.

**Forestland and Carbon rights and ownership:** as stated earlier, customary landholding is not recognized in Cameroon except that a pre-emption right is allowed to communities on the resources they manage for personal use, in which case the law does not relate to the right of the land and precludes sale of any of those resources (see Robiglio et al., 2010; Sama and Tawah, 2009). Currently, the REDD+ pilot project initiatives in Cameroon has been operating only within the PFD, which is a state owned forest (Robiglio et al., 2010; Sama and Tawah, 2009). This implies that Community Forests (CFs) are excluded from REDD+ projects because CFs are originally classified under the NPF where REDD+ projects are not presumed. When it comes to the ownership of carbon sequestered in trees, all depends on the rules and regulations articulated by the existing forest laws in the country. Under *the 1994 Forestry Law*, whether it is in CFs or not, natural resource extracted from natural forest remains under the ownership of state council; natural forest resource stored in privately owned forest is also restricted under the government ownership – thus, under the existing forestry law, there is no clear cut ownership and rights to the carbon stored in forests (Sama and Tawah, 2009). The national REDD+ readiness plan activities in Cameroon, including that of the World bank FCPF, fall short of addressing the critical issues of land tenure, carbon rights and benefit sharing (Freudenthal et al., 2011).

**Participation:** on the other hand, participation is important as it facilitates discussions and negotiations, and could potentially assist in trust building and cooperation, and installs transparency and accountability among participants and stakeholders. However, in Cameroon, it is reported that participation of relevant stakeholders often lack enforcement, which is also aggravated by administration bureaucracies and corruption, and yet the pilot projects have been mostly executed by the international organizations and Non Governmental Organizations (NGOs) involved without consulting forest-dependent communities (see Sama and Tawah, 2009). There is lack effective participation of forest-dependent communities (Freudenthal et al., 2011).

**Benefit sharing:** addressing benefit sharing<sup>8</sup> is also essential in achieving REDD+ objectives of equity, efficiency, effectiveness and co-benefits (3E+). There are, however, uncertainties regarding benefit sharing in the case of Cameroon. In the first place, there is no framework available that dictates the share of benefits generated from REDD+ projects in the country (Sama and Tawah, 2009). Besides, one cannot be certain on who the beneficiary is and how the REDD+ generated benefits shall be shared. Currently, there is a popular chain of benefit sharing mechanism dictated by *the 1994 Forestry Law*. This legislation asserts that any profit of secondary type (i.e., collected through tax collection) generated from extraction of forest resources has to be paid to the state as royalty payments (see Dkamela, 2010; and Sama and Tawah, 2009). The sum of the royalty payment – commonly termed as Annual Forest Fee (AFF) – is then redistributed by the council (local government forestry authority) among three actors: the state seizes (50% ), the council (40%) and the riparian communities (10%) of the total share (Dkamela, 2010; Sama and Tawah, 2009). REDD+ projects are yet at feasibility stage (Sama and Tawah, 2009), however, forest-dependent peoples are likely to be at risk under the future REDD+.

<sup>8</sup> “Benefit sharing” here refers to the potentially broader inducements or range of incentives that are considered under the current UNFCCC negotiations or agreements such as developed countries’ aid in capacity-building to developing countries at international level to payments per ton of sequestered carbon or direct payments in carbon units at national and local levels. See Costenbader (2009: 58).

**Additionality:** Cameroon, as REDD+ candidate country, needs to achieve additionality. Additionality refers to the basic REDD+ project requirement to ensure that extra reduction in emissions is achieved on top of what has already occurred in its absence including the carbon revenues attached to it<sup>9</sup> as well as sustaining forests and enhancing forest carbon stocks. Currently, in the case of Cameroon, monitoring activities are carried out only in the PDF and are not effective; the NPF (including CFs) are excluded from REDD+ pilot projects (see Robiglio et al., 2010; Sama and Tawah, 2009). Ironically, “It is in the NPF that forest massifs undergoes the most significant conversion and degradation processes.” (Robiglio et al., 2010: 13)

**Permanence and leakage:** Cameroon needs to ensure the permanence of carbon stocked under the REDD+ initiative. Climate change mitigation efforts are legitimate only when the reduced emission or the stored carbon is kept intact permanently and not released back into the atmosphere either due to anthropogenic or natural disturbances (Streck and Scholz, 2006, cited in Doyle, 2009). However, stored carbon as a result of REDD+ project, may be released back into the atmosphere such as due to unintended consequences. This is the case when leakage occurs – “unanticipated loss of net carbon benefits as a consequence of the implementation of the project activities” that often takes place off the project site, hence, the term “offsite effect” (Brown, 2002: 5).

### 2.3. The study area context: the Kilum-Ijim area

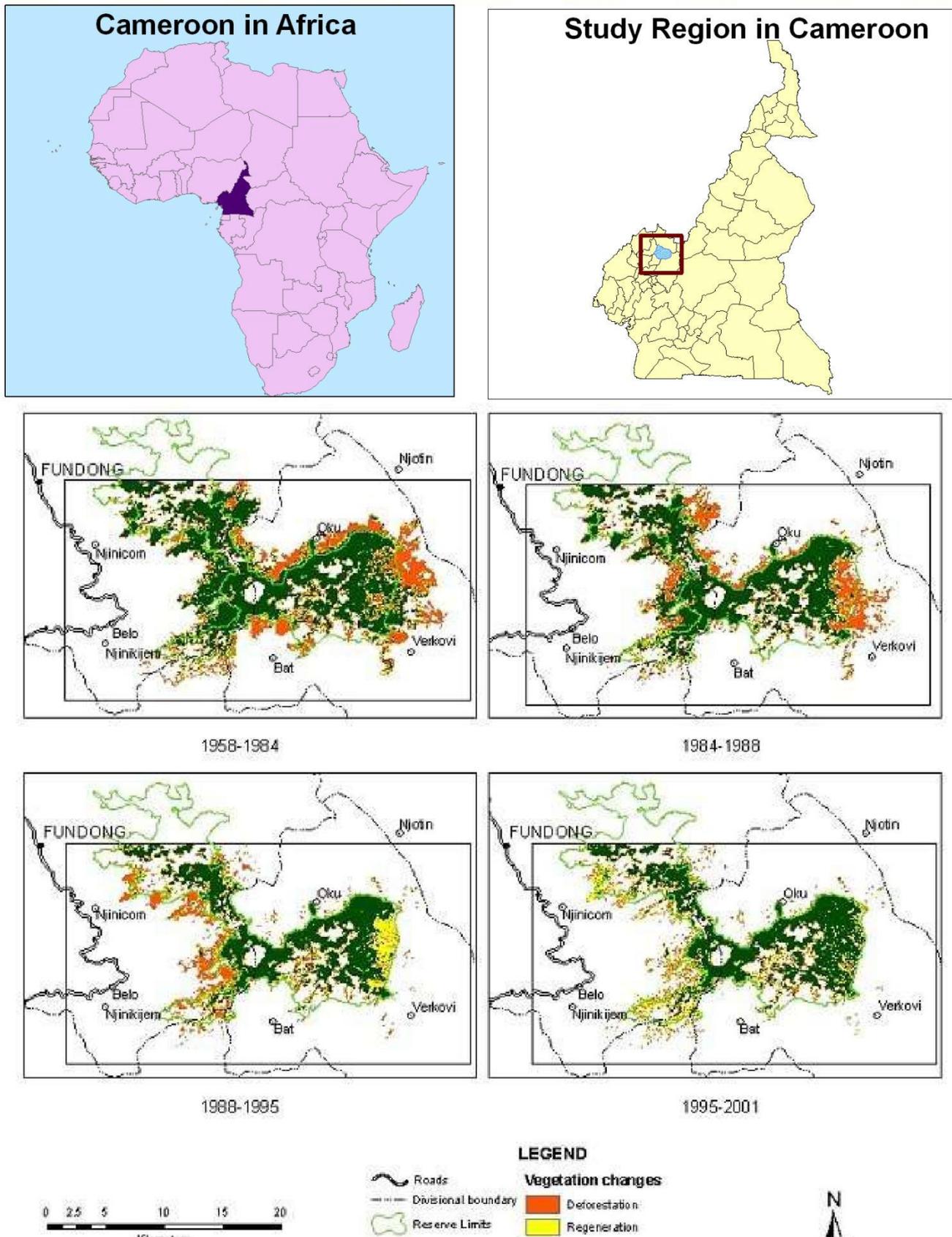
The Kilum-Ijim area is situated in the Northwest region of Cameroon, Bui administrative division within the Bamenda highlands (see Map 1 below). It is naturally preserved moist montane forest area of about 20,000 hectares (Fomété et al., 2001; Asanga, 2001). The forest within this area borders three districts: Oku, Kom, and Nso. Part of the forest that borders Oku is called Kilum, and the rest that borders Kom and Nso is called Ijim – hence, jointly the “Kilum-Ijim forest”. It is located in the second highest mountain ridges in West Africa, lying along the mount Oku and the adjacent Ijim Ridge (Fomété et al., 2001; Asanga, 2001). The geographic location of the area is latitude 6°07'N - 6°17'N and longitude 10°20'E - 10°25'E.

The Kilum-Ijim area is one of the highly populated locations in Africa, accommodating around 200,000 people; hence, high pressure on resource is inevitable; there has been progressive deforestation mainly due to agricultural expansion, forest fire and livestock grazing (Forboseh et al., 2003; Fomété et al., 2001; Asanga, 2001). For instance, the late 1980s decline in coffee prices triggered many farmers to migrate further up the slopes in search of new land to increase income through alternative cash-crops (Fomété et al., 2001). In Kilum-Ijim, deforestation due to commercial exploitation of forest products is also significant. For instance; more than 80% of the *Prunus Africana*<sup>10</sup> has been exploited by foreign commercial companies, which is usually beyond the control of, and with little benefits to, local communities (Asanga, 2001; Fomété et al., 2001).

<sup>9</sup> The concept follows the project-based mechanisms definition “under Art. 12 (5) (C), and Art. 6 of the Kyoto Protocol, see Protocol to the Framework Convention on Climate Change (Kyoto)” That has been applicable to all CDM projects. See Doyle (2009: 81).

<sup>10</sup> *Prunus Africana* is a medicinal plant that contains complex compound sourced from its barks and cures prostate gland ailment (Asanga, 2001).

**Map 1.** Location map of Africa, Cameroon, and the Kilum-Ijim area, Northwest region of Cameroon; the map also displays the Kilum-Ijim forest cover change in the year (1958 – 2001).



Failed institutional arrangements have also been the cause of deforestation and degradation. The efforts of the government's forest conservation activities in Kilum-Ijim area begun in the early 1930s. Such efforts were undertaken without involving the local communities, and in effect, the process ended up with progressive deforestation (Fomété et al., 2001; Asanga, 2001). Later, it was reported that about 50% of the forest was lost in a short time period, i.e., 1963 - 1986/7 (Fomété et al., 2001; Asanga, 2001). At present there are only remnants of the forest patches; Kilum-Ijim forest is the largest and most significant left in West-African Afro-montane forest (Fomété et al., 2001). These critical losses, however, have brought in recent developments with regards to participatory conservation and management practices that contributed to the protection and preservation of the forest. In 1987, the BirdLife International conducted an assessment along the Western Cameroon mountain ridges (Fomété et al., 2001). This led to the set up of the Kilum Mountain Forest and the Ijim Mountain Forest projects launched in 1987 and 1992 respectively (Fomété et al., 2001; Asanga, 2001). The projects were carried out through joint collaboration between the project facilitators (the BirdLife International and the government through Ministry of Environment and Forests, MINEF).

The project's agenda was to monitor the status of bird species to serve as indicator to the overall health of the forest as well as the desired status of biodiversity at large<sup>11</sup>. In order to achieve the project's aim, the project facilitators prioritized the need to demarcate the Kilum and Ijim Forest areas. Accordingly, the demarcation of community forests' boundary was completed in 1991 at Kilum and 1992 at Ijim, in which these processes then gave rise to the unification of the two projects to work together under the umbrella of '*the Kilum-Ijim Forest Project*' in 1995 (Fomété et al., 2001; Asanga, 2001). The idea was to organize smaller community forests for an ease of management through devolving legal CFM institutions. In effect, in 1995–2000, 35 smaller community forests organized under the umbrella of the '*the Kilum-Ijim Forest Project*' (Asanga, 2001). These developments, therefore, yielded the success of the conservation project and CFM establishment in the Kilum-Ijim area.

The success of CFM rests on the diverse special interests of the concerned stakeholders. On the one hand, communities at Kilum-Ijim have strong interest to conserve the forest because it is a substantial and diverse source of their livelihood (see *Appendix II, Box 2*). On the other hand, the Kilum-Ijim forest is a centre of attraction at national and international levels. Thus, the project facilitators have strong interests in protecting and conserving the forest for its significant and distinctive biological diversity (see *Appendix II Box 3*). Therefore, it was the intersection of these special interests of user-groups and that that has yielded the success of the conservation project and the establishment CFM in Kilum-Ijim. In effect, the forest regeneration greatly surpassed deforestation at a rate of 3.9%, and that the Kilum-Ijim forest has increased by 10.6%, in which the success was due to the involvement of communities in direct management tasks and their appropriate reserve performance<sup>12</sup>.

---

<sup>11</sup> The agenda aims at three detailed objectives: (i) the identification of indicator species (i.e. indicators of mature montane forest and indicators of degraded forest habitats); (ii) the detection of trends in those indicators that would help in identifying changes in vegetation; (iii) to gain a better understanding of the ecological requirements of the endemic forest birds. See (Forboseh et al., 2003; Asanga, 2001)

<sup>12</sup> Source: [http://www.kew.org/gis/projects/oku\\_cameroon/index.html#Kilum-Ijim](http://www.kew.org/gis/projects/oku_cameroon/index.html#Kilum-Ijim).

### 3. Research Processes

#### 3.1. Analytical Approach

This research paper follows an interdisciplinary approach connected to the broad concept of sustainability that captures the idea of ecological limits along with inter and intra generational equity. It is claimed that society, communities and culture must be nurtured and should not be sacrificed to the development process (Board on Sustainable Development, 1999). The main focus of this study, however, is to assess the CFM success factors that could nurture achievement of REDD+ goals. In order to identify the CFM success factors – following Agrawal and Angelsen (2009: 204) – this study draws on four clusters: “biophysical; user-group related; institutional arrangements; and external environment.” CFM success factors are factors that are potential to be better designed under REDD+ policy objectives to promote REDD+ goals (see Agrawal and Angelsen, 2009). The biophysical factors refer to resource system; user-group cluster comprise local socio-political and economic factors; and institutional arrangements constitute rules and accountability mechanisms (Agrawal and Angelsen, 2009). Whereas “demographic, market and macropolitical variables are contextual factors” (Agrawal 2001; Dietz et al. 2003; Ostrom 2007, 2009: cited at Agrawal and Angelsen, 2009: 204). The CFM success factors are distilled in a tabular framework below; this framework is an assessment summary table that separates the potential CFM success factors into “exogenous verses design” (see Agrawal and Angelsen, 2009: 205).

Table 2. The general characteristics of CFM success factors: Source – after Agrawal and Angelsen, 2009).

<i>Clusters of success factor</i>	<i>Factors generally contributing to successful CFM</i>	<i>Exogenous vs. design</i>
<b>Resource system</b>	Medium to large community forests	Design
• Biophysical	Well-defined, easily monitored Boundaries	Design
	Predictable benefit flows	Mixed
	Value of the resource	Exogenous
<b>User group</b>	Small to medium-sized group	Mixed
• Socio-political	Interdependent	Exogenous
• Economic	Relatively well-off	Mixed
	Moderate dependence on resources	Mainly exogenous
	Cultural valuation of forests	Exogenous
	Past experience with forest management	Exogenous

<b>Institutional- -arrangements</b>	Rules are easy to understand and Enforce	Design
	Rules are locally devised	Design
	Rules take into account differences in Violations	Design
	Rules help deal with conflicts	Design
	Rules hold users and officials accountable	Design
	Effective local enforcement and sanctions	Mainly design
	Tenure security	Design
	Capacity to exclude outsiders	Design
<b>Context</b>	Stability of demographic conditions	Mixed
• Demographic	Stability of market conditions	Mainly exogenous
• Market	Stability of policy conditions	Mainly design
• Macro political	Stability of technological conditions	Mainly exogenous
	Government support to reduce collective action costs	Design

Table 2 particularly distinguishes factors that can be affected through policy design to promote achievement of REDD+ goals and those that are exogenous. Exogenous factors are either the result of pre-existing natural endowments or that are difficult to change through policy design (see Agrawal and Angelsen, 2009). This distinguishing is helpful in addressing the research questions in the context of the study area. The limitation of this framework is that the interactions between the four clusters and their outcomes and implications are not acknowledged explicitly as in the Social-Ecological Systems (SES) approach (see Ostrom, 2009, 2007).

The rationale behind using this tabular framework is that there is a clear need for institutional design of REDD+ policies to promote CFM success factors that can potentially address the 3E+. In this vein, institutional arrangements should be carried out in discussions with, and cooperation from, members of communities to ensure that: accountability, sanctioning practices, conflict resolution/management mechanisms and legal proceedings are nurtured (see Agrawal and Angelsen, 2009).

## 3.2. Research Methodology

### 3.2.1. Research Design

This study adheres to qualitative research methodology drawing on a single case study - the CFM in the Kilum-Ijim area. Reviewing the general literature, appropriate theory and research questions were identified. Subsequently, a case study location was selected based on critical purposive sampling (Silverman, 2005). Cameroon was selected as a target country mainly because it is a REDD+ candidate country but also essentially

due to its weaker institutional arrangements for forest-dependent communities under the future REDD+ (see Freudenthal et al., 2011; Dkamela, 2010; Robiglio, 2010; Costenbader, 2009; Sama and Tawah, 2009). Thus, the context of Cameroon fits into the interest of this research. The aim of the study is to assess CFM in the Kilum-Ijim forest, which is a community-managed forest in the Kilum-Ijim area. The research questions in this case study cater into CFM, and thus the unit of analysis is the CFM (see Yin, 2003). Therefore, relevant data about the CFM was collected and utilized in the theoretical approach in order to draw conclusions on the research questions.

This study was conducted in a deductive approach (Bryman, 2008). The possibility of generalizing from this case study is restricted due to the fourth cluster of the analytical approach: i.e., ‘external environment/contextual factors’ broadly characterized by ‘demographic, cultural, technological and market-related factors; the nature of state agencies; the involvement of NGOs; and international aid.’ (Agrawal and Angelsen, 2009: 207-208). Despite the restrictions, however, the findings attributed to this case study can add knowledge to scientific understanding with regards to the circumstances under which CFM success factors determine forest-dependent peoples’ eligibility under the future REDD+ as well as its contribution in achieving long-term REDD+ goals in a relevant local context elsewhere.

### 3.2.2. Data collection Strategy

Accessible data about the CFM of the study area is available only from 2001, which was documented during the Kilum-Ijim conservation project development. The CFM assessment exercise, therefore, draws on primary and secondary types of data. The secondary data was collected from publications/documents, mainly Asanga (2001) and Fomété et al. (2001), produced during the conservation project development and CFM establishment at Kilum-Ijim that took place in 1987-2001. These documents are a type of ‘Formal studies or evaluations of the same ‘site’ under study’ (Yin, 2003: 86). Primary data was deemed essential in order to have upto date information about the CFM during the last 10 years after the completion of the project. It was gathered using semi-structured (focussed) interview with open ended types of questions (*see Appendix I*) in order to specifically address situations relevant to the interviewees and the researcher interest (Mortens et al., 1956, cited in Bryman, 2008).

The interview focussed on key respondents that are highly involved in the forest one way or the other: community forest coordinator/chairman, village traditional authority member, forest user, *Prunus* tree harvester, tourist guide, council revenue collector, local elite. Identifying key interviewees is crucial in avoiding biases (Mikkelsen, 2005). Initially, interview questions were prepared by the author based on the information collected from the secondary data, and interviewees were selected in collaboration with the representative. As noted earlier, the interview was conducted by a representative (from the study area) mainly due to lack of funding. This situation may cause some limitations to the researcher in perceiving the CFM setting in the study area, not least, due to lack of direct observations. However, e-mail, and long telephone conversations were exchanged with the representative to clarify things when necessary. Besides, to deal with this limitation and essentially to construct validity and address ‘subjective’ judgement (Yin, 2003: 35), the answers provided by interviewees were generally cross-examined

with respect to the performance of government service provisions to community-managed forests and outcomes from related CFM publications in Cameroon (see for example Ezzine de Blas & Ruiz Pérez, 2006; Oyono, 2005; Egbe, 2001). In this manner, therefore, the methodological strategy of this study – through a combination of data collection and construction techniques – sticks to the concept of triangulation in order to cross-check results (Bryman, 2008). Finally, the answers were properly revised and coded.

## **4. Community Forestry Management (CFM)**

### **4.1. Introduction**

The term CFM has been broadly used to refer various specific forms: joint forest management (JFM), forest co-management and community-based forest management (CBFM), participatory forest management (PFM) and social forestry (see United Nations Economic and Social Council, 2010; Agrawal and Angelsen, 2009). For the purpose of this study, CFM is defined as the management of forestlands, resources and services by local peoples for commercial and non-commercial purposes (United Nations Economic and Social Council, 2010) under shared rules and collective rights (Corbera, 2010b). To reflect the study area context, the term CFM is defined as: managing forest resources and services by group of local people from a village in such a way groups are organized from various villages bordering the Kilum-Ijim forest area under shared rules, norms and collective rights.

There have been recent studies on CFM and related subjects from different perspectives. For example, Carter and Gronow (2005) have explored various forms of tenure security in different parts of the world. On the other hand, Dubios and Lowore (2000) have investigated the shift of paradigm that the forestry sector in Africa has recently went through with regards to management; i.e., a change from focussing on primary forest products to multiplicity of goods and services (such as payments for environmental services, PES), and from a domination of the forestry sector by few actors, e.g., governments and private sector to the recognition of the various and frequently diverse interests. Besides, Dressler et al. (2010) conducted a historical analysis of the Community-based natural resource management (CBNRM) from a more critical view, highlighting on the mismatch of theory and practice at local, national and international levels since its inception. There are, however, very few recent studies on the significance of CFM on REDD+. These studies stress on the potentials of CFM on dry forest and savannah woodland regions, and aim to address national and global implications of excluding degraded forests in those regions. However, such studies are narrowly focussed on reduction of transaction costs as well as enhancing reliability and legitimacy by engaging forest-dependent peoples on monitoring tasks in dry forest and Savannah woodland regions (see for example Skutsch et al. and Skutsch et al., 2009). Others mainly concentrate on the role of CFM in addressing benefit-sharing concerns and potential impacts on household and particularly the poor under the future REDD+ (see Sam and Shepherd, 2011). Such studies, however, hardly pay attention to the complexity and non linearity of the social-ecological systems with regards to commons resource (see Ostrom, 2009, 2007); for example, forests in this case.

## 4.2. CFM lessons learnt in the context of the Kilum-Ijim area

The CFM in the Kilum-Ijim area has benefited from four main phases – investigation, negotiation, implementation and monitoring – commenced during the processes of the conservation project Asanga (2001). The project has played a key role in: conflict resolution rules and norms; trust building; and collective action practices across user-groups and among user-group members. Such lessons, CFM has experienced are discussed in the box below.

### Box 1. Conflict resolution, trust building and collective actions

**Conflict resolution and trust building:** the project has experienced interesting conflict between woodcarvers and beekeepers. Woodcarvers constitute a significant interest group in all community forest user groups in Oku district. They harvest special tree species called *Polyscias fulva* to produce various products such as furniture, masks and statute, and sell their products mainly in Oku village market. Overtime, *Polyscias fulva* suffered from overharvest, and in effect, some carvers started to use other plant species called *Schefflera abyssinica*. This tree species is the most favourable tree for beekeepers because it provides the nectar that is special in the making of white honey which is popular in Cameroon. At this point, tension between the carvers and beekeepers heightened. However, through time, the project facilitators addressed the issue by facilitating meetings and discussions among users. Thus, CFM benefited from such conflict resolution practices through facilitation of productive meetings among forest users.

Besides, tribal conflicts have long-standing history in the Province of Northwest Cameroon. Such conflicts occurred during the demarcation processes. The project facilitators clarified that the demarcation was solely to set-up forest management boundaries and not tribal boundaries. The idea was then agreed and welcomed by all parties and the demarcation processes executed accordingly. This is a classic case example that conflict management is possible in the CFM processes without necessarily resolving long-standing conflicts.

Another experience is the issue of illegal grazing by powerful minority ranchers that has been a major challenge at Kilum-Ijim. Initially, the ranchers were legally restricted to graze in limited areas. However, they disobeyed the rule and preferred to graze unlimited. Besides, they expanded their livestock grazing areas, and hence, were accountable for forest-fire and forest clearing activities. The short-term benefits of the powerful ranchers were not supported, and that the case was handled in court. Thus, grazing in restricted forestland reduced drastically although not completely.

**Collective action:** during dry seasons, the Kilum-Ijim forest is often under a major threat of forest fire; MINEF has shared its technical advice with the communities through meetings and encouraged them to patrol and prevent forest fires (Asanga, 2001). The traditional authorities (being encouraged by the recognition of their role) resumed their leadership happily and played a key role in organizing on-the-farm and at the community-level fire-campaigns; and in effect, forest fire events reduced considerably.

Source: (Asanga, 2001)

## 5. Analysis of CFM success factors using the analytical approach

Literature review on CFM indicates that REDD+ policies clearly need to promote the CFM factors that are associated with success (Agrawal and Angelsen, 2009). The CFM success factors (see table 2) are broadly grouped into four clusters: resource system, user-group related, institutional arrangements and contextual factors (Agrawal and Angelsen et al., 2009). The CFM in the context of Kilum-Ijim area will be analyzed against the list of CFM success factors of each of these four clusters (see table 2) in the following section.

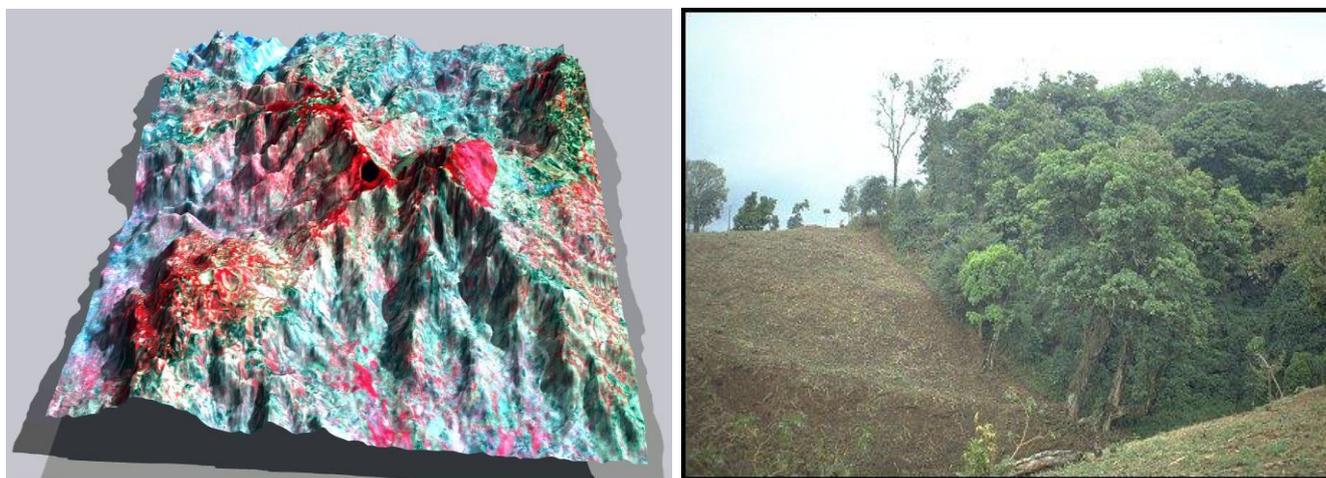
### 5.1. Resource system

Findings on *resource systems* demonstrate that communities are likely to better manage forests that are characterized by: *medium-to-large size forests; well-defined boundaries; easy to monitor; and predictable benefit flows* (see Agrawal and Angelsen, 2009). These factors are listed as CFM success factors in table 2.

The Kilum-Ijim *forest area* covers 20 000 hectares. As noted earlier, during the conservation project development, the entire Kilum-Ijim forest was partitioned into 35 smaller community forests for an ease of management (see Asanaga, 2001; Fomété et al., 2001). Although, there is no information on the exact size of each smaller community forest, the average size would be around 500 ha. Each community forest is characterized by *well-defined boundary* that was demarcated during the conservation project (see figure 2 below).

Figure 2. The Kilum-Ijim forest boundary

**A.** 3D image of the Kilum-Ijim area; red mark indicates forest cover. **B.** Boundary that separates the Kilum-Ijim forest and agriculture area.



Source: [http://www.kew.org/gis/projects/oku\\_cameroon/index.html#Kilum-Ijim](http://www.kew.org/gis/projects/oku_cameroon/index.html#Kilum-Ijim)

Besides, partitioning into smaller community forests would make the entire forest *easy to monitor*. In fact, the prior objective of the conservation project was to understand the system dynamics of the whole resource; i.e., the forest and its unique biodiversity, and to ensure the continuity of monitoring processes using the endemic bird species as indicators (Forboseh et al., 2003; Fomété et al., 2001; Asanga, 2001).

In the case of Kilum-Ijim forest resource, there is *predictable benefit flow* that is well understood and appreciated by the users. For example, there is a substantial benefit flow that is generated from selling the Prunus trees that grow in the forest in abundance. User-groups at large benefit from the income generated from Prunus in diverse livelihoods including: support for schools, community water-project development, institutional management activities, and others. Prunus is harvested between 3-5 years interval as the tree needs time to regenerate: the first harvest was recorded in 1995 and the last in 2009<sup>13</sup>. Thus, there is a benefit flow that is extracted from Prunus selling at approximately three years intervals. Besides, there is benefit flow that the beekeepers and woodcarvers get from the forest resource. For example, the beekeepers make good income from using the special tree species (*Schefflera abyssinica*) that provides the nectar in the making of the popular white honey in Cameroon, which is a main source of their livelihood; similarly, the woodcarvers deduce fair income from special tree species (*Polyscias fulva*) through producing wooden-artefacts that have higher demand in the local market (see Asanga, 2001).

## 5.2. User-group related

Literature about CFM indicates that user-groups that are: *small-to-medium sized*, competent in *technical and institutional capacity*, *dependent* on their forests, and *interdependent* among themselves are more likely to organize and sustain institutions and effectively manage forest commons (Agrawal, 2001, cited at Agrawal and Angelsen, 2009; see also table 2). These factors are also listed under table 2 as CFM success factors. The total population in the Kilum-Ijim area reaches approximately 200 000. The *size* of each user-group varies in the range of 500–1500, and is generally manageable in the context of Kilum-Ijim. This can be illustrated by the success of the user-group organization and partitioning of user-group forests during the processes of the conservation project, which was participatory and successful (see Asanga, 2001).

With regards to *institutional capacity*: in the Northwest region of Cameroon, there is certain form of traditional institution. There is a *Fon*, which is a leader of an ethnic group (also referred to as *Fondom*) and a *Kwifon* that constitute the Elders' Councilor (a form of council of villages) next to the *Fon*, both of which constitute the top traditional forest custodians and hold the '*de facto ownership*'. Each ethnic group is made up of villages that are managed by village heads and village councils. These all report to the *Fon* and *Kwifon*. Most of the village heads are members of the *Kwifon*.'' (Asanga, 2001: pp. 26, 43) The *fon* and the *Kwifon* (referred to as the traditional authorities) are therefore the leaders of the user-groups or the communities at large (see Asanga, 2001). ''These traditional authorities, headed by the Fons (or paramount chiefs), are highly respected and play an important role in the governance of the region.''<sup>14</sup> I refer to this type of traditional institution as '*traditional governing system*'' throughout this paper. The traditional authorities are relatively competent in institutional capacity. They are responsible in dealing with social issues and organizing user-group activities – such processes usually take place at the *Fon's Court*, termed as the *Fon's Palace*, which is often within the same compound where the *Fon* lives

<sup>13</sup> Information source: interview.

<sup>14</sup> See <http://www.birdlife.org/action/ground/bamenda/bamenda3.html>

(Asanga, 2001). The traditional authorities played a key role in the success of the conservation project, and the communities at large were cooperative. For example, it was stated earlier that the traditional authorities achieved success in controlling forest-fires by arranging collective actions through organizing on-the-farm and at community-level fire campaigns (Asanga, 2001). Such collective actions often take place with the support of the project facilitators in facilitating user-group meetings and sharing of technical advice (Asanga, 2001). The success of the collective actions, however, illustrates the institutional competency of the traditional leadership and their *traditional governing system* in the Kilum-Ijim area.

However, *monitoring* process at Kilum-Ijim has been sluggish, and is currently at a rudimentary stage. During the completion of the conservation project, BirdLife International and MINEF envisaged to organize a permanent Technical Operations Unit (TOU) and Ecological Monitoring Unit (EMU) to perform monitoring activities as a back-up mechanism to support the user-groups; however, this plan has never been implemented (Fomété et al., 2001; Asanga, 2001). Currently, based on interview data, it is revealed that ecological monitoring activities are random. It is communicated in a way that user-groups occasionally report any incidence such as illegal use of forest-resource and bush-fires to the traditional authorities on the one hand; and likewise, the Forest Management Institutions (FMIs)<sup>15</sup> report to MINEF on the other; the information is then documented by MINEF, and consulted by BirdLife International on request. Having no clearly structured monitoring procedures, however, the information is usually incomplete. For example, tree re-planting is not properly monitored on the ground<sup>16</sup> mainly because user-groups have lack of technical capacity in performing forest monitoring tasks. This is, nonetheless, due to lack of institutional arrangements.

With regards to *dependence* and *interdependence of user-groups* on the forest resource: user-groups at Kilum-Ijim area have diverse and substantial livelihood interests in timber and non-timber products. As noted under the *resource system* section: user-groups at Kilum-Ijim have greater interest in the Prunus trees as a major and diverse source of livelihoods. Besides, as stated earlier, the beekeepers have strong interest on the special tree species (*Schefflera abyssinica*) for their produce; and likewise, the woodcarvers on the (*Polyscias fulva*), which is peculiar tree species for their wooden-artefacts product – indeed the woodcarvers invest their resource in self-organization activities to develop their own nursery sites of this inadequate tree species (see Asanga, 2001). The beekeepers and woodcarvers represent the largest user-groups at Kilum-Ijim, and having diverse and greater interests, they are efficient in protecting the forest from forest-fire incidences and grazing in order to maintain their interests.

In summary, with the existence of the above mentioned success factors, and provided that the lack of user-groups' competency in technical capacity (such as monitoring activities) is addressed; user-groups at Kilum-Ijim are more likely to organize and sustain institutions and effectively manage their forests.

---

<sup>15</sup> FMIs are elite community members that were organized by MINEF during the processes of the conservation project to assist forest user-groups in technical and institutional management activities.

<sup>16</sup> Information source: interview.

### 5.3. Institutional factors

Findings on forestry institutional arrangements point out that rules that are: *locally designed, clear, acceptable, enforceable*; and that characterized by *sanctioning, conflict resolution, exclusion and accountability mechanisms* to hold users and officials responsible are most likely to yield effective CFM (Ostrom, 2009; Ostrom 1990, cited in Agrawal and Angelsen, 2009). These factors are listed as CFM success factors in table 2.

As discussed under the *User-group* section, there is the *traditional governing system* in the Northwest region of Cameroon including the Kilum-Ijim area. The traditional governing system in this case is thus an institution through which the traditional authority, having the *de facto ownership* of the forest, exercises its power in governing the area including the forest resource. As part of the traditional governing system, there is *the traditional village justice system* that serves as a binding platform for the Kilum-Ijim communities in accessing and using the forest resource (see Fomété et al., 2001). The CFM at Kilum-Ijim is thus institutionalized within the *traditional governing system* (Fomété et al., 2001). The CFM at Kilum-Ijim area operates in the form of three-party institutional arrangements that comprise: the traditional authorities (represented by the fon, kwifon and village heads); the local communities of the Kilum-Ijim area; and the government (represented by the MINEF) (see Asanga, 2001).

Referring to user-groups' *enforcement*: the *traditional village justice system* is an old traditional system of enforcement or normative sanctioning rule with regards to forest access and use. It holds user-groups accountable for compensations if they damage the forest. If, for instance, any user-group member damages the forest (such as through grazing), *the traditional village justice system* holds that member liable to pay compensation, which is often in the form of in-kind payment<sup>17</sup>. *The traditional village justice system* is integral to the CFM institution. It allows the communities at Kilum-Ijim to build and share common rules and norms across groups they formed and among group members in accessing and using the forest resource. CFM also advantaged from user-group collective actions (e.g., forest-fire campaigns) as mentioned under the *user-group* section. Besides, CFM experienced institutional success factors: the legal enforcement placed against the powerful ranchers to restrict their livestock from accessing and damaging the forest; the tribal dispute settlement across the concerned user-groups; and the conflict resolved and trust built between beekeepers and woodcarvers are all illustrative experiences (see Asanga, 2001).

However, the CFM institution does not constitute rules that are characterized by: *exclusion and accountability mechanisms to hold officials responsible*, in which such characteristics are most likely determinant in the effectiveness of CFM. This can be explained by the prevalence of corruption activities that took place during the last sale of the Prunus, in which local elites and government officials were responsible for such corruption

---

<sup>17</sup> Information source: interview.

activities and lack of accountability and transparency. Based on findings collected through interview, it is revealed that serious corruption activities occurred during the last sale of the Prunus. The last sale of the Prunus took place in 2008/2009, in which about one hundred millions CFA (a Cameroonian currency which is equivalent to 219,671.05 United States Dollar, USD)<sup>18</sup> was realized from the sale of *Prunus Africana* tree-bark. Approximately 8 million CFA of the total was distributed as follows: aluminium sheets bought and used for roofing of schools; about 200,000 CFA was paid as royalties to the traditional authorities; around 150,000 CFA for a community water project (the Ngashie community water project); some amount was also used for institutional management as well as for the community radio staff<sup>19</sup>. The rest, which is about 90 million CFA is supposed to be saved into the community saving account. The communities are still being owed some money by the buyer amounting to about a million CFA.

As stated earlier, Prunus' harvesting activities take place approximately every three years. Previously, there has been selling of Prunus, however, the last Prunus selling witnessed much larger quantity than the previous years, and that serious corruption prevailed. The *Prunus* selling process is not clear but usually the FMIs, forest guards, and the traditional authority as well as local government officials such as government council (local government administration), and local MINEF authority are also often involved in the harvesting and selling processes. During the last sale of the *Prunus*, therefore, the FMIs, local government council, local MINEF staff, were responsible for the mismanagement – that involves corruption and lack of transparency and accountability.

Corruption activities<sup>20</sup> occur among these actors in a complex manner which is difficult to foresee. However, the symptoms of the corruption often prevail at the stage of the benefit distribution processes, which is usually unfair and inequitable. Such corruption activities further provoked different reactions from the communities at large. For example; there was a boycott by some members of user-groups to participate in community development activities, while others were involved in illegal logging of Prunus. Besides, discouraged by the corruption activities, one of the interviewed leaders of the community forests, known as the Mfi-mir community forest, decided that Prunus harvesting activities should not take place again within his community forest. Thus, he is now interested only in tree planting other than the Prunus and has submitted a five-year management plan to the state for approval. To him, any future harvest will provoke the same conflicts because of the nature of the stakeholders involved.

Besides, a member of the traditional authorities, on an interview, stated that “ there was thievery and corruption” at the management level. A tourist guide was also interviewed about management issues and his response was that the harvest was necessary, but all the stakeholders were having much interest of their own and forgot the

---

<sup>18</sup> The currency was converted online on the 10<sup>th</sup> of May, 2011.

<sup>19</sup> At Kilum-Ijim there is a radio service that broadcasts issues related to the forest.

<sup>20</sup> In theory, there are different types of corruption: *grand corruption* that involves large sum given to top government officials secretly; and *petty corruption* that is diverted or leaked from fund of environmental service scheme that was supposed to be distributed to local communities (see Tacconi et al., 2009: 164). However, this paper does not intend to go into such details due to limitations.

‘‘common man’’<sup>21</sup>. A member of the FMIs was also interviewed, and believes that benefit distribution was not fair and that the consequences were serious. He also added that harvesting is necessary but need proper planning and role distribution well in advance. Government council revenue collector interviewee also expressed his impression about the non payment of the revenue related to the last sale of the Prunus. On the other hand, a member of a forest user-group interviewee uttered his dissatisfaction with the benefit distribution and to him; the whole process was for the interest of the FMIs and other officials.

To summarize, referring to the above experiences, CFM institution in the Kilum-Ijim comprises rules that are partially: locally designed, clear, acceptable and enforceable. The CFM in the Kilum-Ijim area also constitutes sanctioning norms and rules (e.g., the traditional village justice system, generally in using and accessing the forest resource by user-group members), and conflict resolution across user-groups. However, the CFM institution lacks accountability mechanism to hold local government officials and the FMIs (elite community members) responsible. Thus, the CFM needs institutional arrangements within the forestry sector at national level. CFM should be strengthened through redesign of rules that comprise exclusion and accountability mechanisms to hold local elites and government officials responsible that are most likely to create effective CFM.

#### 5.4. Contextual factors

User-group communities, their forests and institutions are influenced by contextual factors that include: the nature of state agencies; involvement of nongovernmental organizations; market-related issues; demography; and technology among others (Agrawal and Angelsen, 2009). Contextual factors influence forest resources in many ways. For example, forests are affected by market institutions with the emergence of new exchange instruments for carbon and watershed such as PES (Tayler, cited in Agrawal and Angelsen, 2009). Nonetheless, successful CFM is positively linked to a stable context accompanied by government efforts that reduce collective action costs of communities (Agrawal, 2007, cited in Agrawal and Angelsen, 2009).

Currently, Cameroon faces critical challenges: about 80–90% jobs operate in the informal sector out of which 75% of the workforce is attributed to agriculture sector; monetary poverty (40.2%); and low investment that shares only 17.4% of the GDP (MINEPAT 2009, cited in Dkamela, 2010). These factors indicate the existing political choices – in agriculture, infrastructure, energy and mining sectors – of the country that will have potential medium-to-long term impacts in the forest sector (see Dkamela, 2010). The current national agricultural, mining and infrastructure development strategies are mainly driven by the development needs of the country; e.g., agriculture development to alleviate poverty (see Dkamela, 2010). For example, the Rural Sector Development Strategy (RSDS) prioritizes an increase in agricultural production (e.g., oil palm or biofuels) by 50% in the year 2005 – 2015 through expansion of cropping areas in forestlands by 25% (see Dkamela, 2010).

---

<sup>21</sup> The ‘‘common man’’ in this case refers to the majority of the communities (user-groups). Source: interview.

Another critical *contextual factor* is the Growth and Employment Strategy Paper (GESP) that considers projection of mining as the country's major economic strategy in the next 10 years. The ministry in charge of mining has granted 82 mining research permissions to private industrial mining sector (Dkamela, 2010). Besides, the GESP claims infrastructure development to increase asphalt roads and railway lines: development of more than four major railway connections are envisioned, in which some of the lines shall serve the mining sector (Dkamela, 2010). Furthermore, the country has a monetary poverty of 40.2%, and low investment share, i.e., only 17.4% of the total GDP (MINEPAT 2009, cited in Dkamela, 2010). On the other hand, referring to demography, the population of Cameroon was estimated 18 M in 2007, and was predicted to reach 25 M in 2020 with the current higher population growth rate of 2.9% (see Robiglio et al., 2010).

## 6. Discussion

There are many factors that can be influenced by design to achieve successful CFM, but not all; factors that have been recognized as leading to successful CFM are identified based on review of large CFM literature (see table 2). CFM success factors will be discussed below for each cluster. Methodically, the study utilizes secondary data sourced from previous documents, and primary data collected using semi-structured (focussed) interviews (open ended questions) conducted by a representative from the study area. And related limitations were addressed through careful cross-checking mechanisms and appropriate methods (see Limitations of the study and Research methodology on sections 1.3 and 3.2 respectively).

**Resource system:** referring to the *resource system*, certain CFM success factors can be drawn. REDD+ projects can potentially benefit from the CFM success factors having the entire Kilum-Ijim forest partitioned into smaller community forests that are characterized by: medium-sizes; well-defined boundaries; easy to monitor, and predictable benefit flows from the forest resource. There are, however, crucial distinction points between CFM and REDD+. Unlike CFM, REDD+ values the amount of carbon stored in trees and belowground biomass. It is likely that the amount of carbon stored through community-based REDD+ project to be small; thus it is essential that monitoring community-based REDD+ project need to be cost-effective, and that rule violators should be held accountable (see Agrawal and Angelsen, 2009). Therefore, the effectiveness of the *institutional arrangements* is determinant. Besides, an atmosphere for effective and efficient monitoring of carbon stock changes, and equitable REDD+ benefit distribution through involving forest-dependent communities (see Skutsch et al., 2009) should be encouraged in the Kilum-Ijim area. Another major distinction point between CFM and REDD+ is the nature of volatility and unpredictability of carbon prices (Agrawal and Angelsen, 2009). In this case, Cameroon would need to establish a credible national system of REDD+ fund for carbon payments in order to create a buffer between international and local carbon markets. In line with this, managing their forests sustainably, CFM users at Kilum-Ijim could potentially receive greater benefits from REDD+ project payments. Thus, effective institutional arrangements are needed to prevent elite capture of the Kilum-Ijim community-managed forest carbon stock so that continued equitable benefit distribution is ensured.

**Institutional arrangements:** regarding *institutional arrangements*, future REDD+ in the context of Kilum-Ijim can take advantage of the CFM success factors gained during the processes of the conservation project. These success factors include: facilitation of user-group collective actions experienced during forest-fire campaigns; conflict resolution and trust building practices acquired across user-groups and among user-group members such as that of the beekeepers and woodcarvers; and the tribal conflict management exercises. Besides, the existing traditional norms and rules (i.e., *the traditional village justice system*) related to the forest access and use shall potentially favour REDD+, particularly, to address forest threats such as grazing. Yet, there are critical issues of institutional arrangements that need to be considered in the context of REDD+. CFM institution does not constitute rules that are characterized by: exclusion and accountability mechanisms – which are most likely decisive characteristics under the potential REDD+ – to hold local elites and government officials responsible. These issues are related to the prevalence of corruption and lack of accountability and transparency by local elites (the FMIs) and government officials that occurred during the last sale of the Prunus<sup>22</sup>.

In this case, the issue of corruption and lack of accountability and transparency by local elites and local government officials occurred due to the lack of CFM institutional arrangements. And the lack of CFM institutional arrangements is related to the issue of forestland tenure insecurity. In Cameroon, the lack of recognition of customary land title and the systematically centralized management institution (under *the 1994 Forestry law*) by the government is the major impediment to the success of CFM in the forestry sector (see Egbe, 2001; Oyono, 2004). The 1994 Forestry law has failed to meet its promises of decentralized CFM management system (e.g., in Dja Reserve and Kilum-Ijim), and is far from contributing to the improvement of rural livelihoods (Ezzine de Blas and Ruiz Pérez, 2006). The law does not recognize customary landholding rights (see Dkamela, 2010; Sama and Tawah, 2009), in which all land is owned by the state except that a pre-emption right – that does not relate to the right of the land – is allowed to communities on the resources they manage for personal use, in which case the law precludes sale of any of those resources (see Robiglio et al., 2010; Sama and Tawah, 2009). Besides, in Cameroon, the procedures of obtaining legal CFM are complex, corrupt and expensive, and that the processes are often beyond the ability of user-groups to afford the means (Sama and Tawah, 2009), and that CFM legality has proven to be unsuccessful (Savaresi and Morgera, 2009).

Based interview, it is revealed that corruption and lack of transparency and accountability by local elites and government officials provoked illegal Prunus harvest by members of user-groups. This indicates that such corruption behaviours weakened user-group's traditional norms and rules of forest access and use (e.g., *the traditional village system*) and motivated user-group members to involve in such traditionally illegitimate forest activities. Thus, with the lack of recognition of user-groups' customary landholding and the failed legal CFM ownership, user-groups at large and their leadership cannot afford: to exclude corrupt government officials from reaping the benefits generated from the last sale of the Prunus; to control corruption by local elites; and to regulate the involvement of user-group members from embarking in illegal Prunus harvest activities.

---

<sup>22</sup> Source: interview data.

Therefore, in Cameroon, first and foremost, REDD+ policy needs to address the issue of land title and legal CFM management institution in the forestry sector at national level. This can be done through reform in the national forestry legislation so that REDD+ initiatives shall be integrated with CFM (Agrawal and Angelsen, 2009). In this line, reform in the forestry sector in Cameroon shall be addressed, e.g., through effective decentralization processes including recognition of customary landholding at national level. Effective decentralization can be achieved through careful design, implementation and monitoring processes accompanied by genuine commitments from the international REDD+ partners and the central government with the support of training to local government representatives (Larson and Ribot, 2009). Besides, Corruption and illegal forest activities (IFAs) may dwarf land-use allocation processes and enforcement plans and potentially lead to deforestation (see Tacconi et al., 2009). Hence, placing effective anti-corruption measures against others, e.g., local elites and government officials should induce positive impacts. The positive impacts are not necessarily related to reduction of deforestation but possibly to make REDD+ policies appealing to achieve the 3Es+ goals of REDD+ (see Tacconi et al., 2009).

In summary, REDD+ should promote the CFM success factors related to *institutional arrangements* emerged during the processes of the conservation project that include: conflict resolution/management practices, trust building and facilitation of user-group collective actions. Besides, under the UN-REDD or World Bank FCPF, REDD+ needs to encourage the traditional normative rules and sanctioning norms (i.e., *the traditional governing system* and *traditional village justice system*) as indigenous knowledge and practices. Meanwhile, REDD+ should address the challenges associated with tenure insecurity through creating means where user-groups' customary landholding could be recognized. In addition, REDD+ needs to devise and strengthen the CFM so that user-groups can be able to exclude corrupt officials from sharing benefits generated from forest resource and services; address corruption by local elites; and control illegal harvest by user-group members. In this vein, REDD+ policies will have to promote recognition of the role of traditional authorities and user-groups at large through effective decentralization processes and facilitation of legal CFM ownership. Furthermore, REDD+ should encourage CFM success factor related to rural appraisal participatory approaches experienced during the conservation project development. This is relevant to the UN-REDD (see UN-REDD Programme, 2009) and World-Bank's FCPF (see Morgera, 2009) full recognition of the importance of PIC in facilitation of effective and meaningful participation of forest dependent communities during the entire processes of REDD+ projects design and decision making. However, REDD+ policy may need to foster Free and Prior Informed Consent (FPIC) (see Morgera, 2009).

**User-group related factors:** concerning *user-groups*, there is lack of technical capacity in performing forest monitoring tasks. Current literature proposes that effective and efficient monitoring of carbon stock changes as well as equitable REDD+ benefit flows to communities can be achieved through involving forest-dependent communities (see Skutsch et al., 2009). This is relevant in the case of Cameroon (including Kilum-Ijim) provided that user-groups acquire adequate support from the government in collaboration with the international REDD+ partners of the country such as the FCPF, GTZ, COMIFAC, KfW, and other relevant private initiatives and supporters including foreign investors. Foreign investors and project supporters are potential stakeholders, particularly at the initial stages of REDD+ projects, and can improve national capacity through knowledge and

technology transfer and enhance legal frameworks for effective governance of forests (Costenbader, 2009). In line with this, the REDD+ international partners and organizations in collaboration with MINEP and MINFOF (the two ministerial bodies coordinating the national REDD+ of Cameroon) should promote the success factors associated with carbon stock-changes monitoring activities through enabling communities' involvement. Thus, user-groups at Kilum-Ijim can be supported with capacity building through knowledge and technology transfer from the REDD+ partners and institutional arrangements from the national REDD+ coordinating and other relevant institutions.

In summary, in the case of Kilum-Ijim, REDD+ should promote the CFM success factors associated with user-groups characterized by: small-to-medium size, greater dependence on their forests, competent in traditional institutional capacity, and strong interdependence. For example, REDD+ can benefit from the traditional authority leadership capacity in the Kilum-Ijim area. The *Fon* and *Kwifon*, having influential capacity in governing the area, REDD+ can take advantage of the experiences of the leadership in organizing user-group collective actions. Besides, REDD+ can also benefit from user-group dependence on their forests. As stated earlier, user-groups at large have greater interest in sustaining the *Prunus* for livelihoods, including: school support, water project development and others. Furthermore, user-group interdependence (e.g., between beekeepers and woodcarvers) could be instrumental in patrolling the forest and controlling incidences that can potentially harm the forest. In this case, as previous experiences shows, such user-groups could protect the forest from illegal activities in order to maintain their own interests. Therefore, there are potential user-groups' related CFM success factors that should be promoted under REDD+ through enhancing sufficient institutional arrangements. The success of user-groups to manage their forest resources is, however, affected by contextual factors (Agrawal and Angelsen, 2009).

**Contextual factors:** referring to the *contextual factors*, there are a number of challenges ahead for REDD+ policy designs in the context of Cameroon. For example, the Rural Sector Development Strategy (RSDS) that aims 50% increase in agricultural production in the year 2005 – 2015 through conversion of forestlands into croplands by 25% (see Dkamela, 2010). In this case, RSDS needs to adopt national agricultural policy that favours REDD+. As a forest rich country, Cameroon can take advantage of agricultural policy reforms that represent ‘reduced emissions agricultural policy’ (REAP) prescription, and that such policies should be *place specific*: i.e., REAP related policies should target central (semi-urban and nearby metropolitan) places or largely populated areas through promotion of agriculture intensification at lower opportunity costs; limiting agriculture expansion in remote rural areas; and encouraging secondary forests (e.g., agroforestry, which is mainly beneficial in enhancing forest cover and forest carbon stock) through creating low tax incentives (see Rudel, 2009: 192-194). REAP is, therefore, essentially relevant for CFs under future REDD+ in the case of Cameroon. In this line, Cameroon could benefit from adopting REAP policy, i.e., *place-specific* agricultural intensification in semi-urban or highly populated areas at lower opportunity costs. On the other hand, REAP policies need to foster agricultural produce, including: wide-range agroforestry; and encouraging PES to landholders in distant Cameroonian rural areas, in which such activities should also be backed-up by low tax incentives. Such regulatory instruments are pro REDD+ and should enhance achievement of the 3Es+ of REDD+.

In addition, as noted earlier, jobs in the informal agriculture sector of Cameroon reaches 75%. Introducing the REAP strategy thus should: ease pressure on the forestry sector; create alternative employment opportunities; and assist poverty alleviation while at the same time promoting achievement of the 3Es+ of REDD+. REAP is more important in the case of Kilum-Ijim because there is competition for arable and other land uses along village borders. For instance, recent inter-tribal conflict surfaced between Oku and a neighbouring village called Mbesa due to land-use competition that resulted in farmer-farmer and farmer-grazer conflicts. Although the issue was addressed legally, there is still tension and isolation<sup>23</sup>. Thus, at Kilum-Ijim, adopting REAP strategy, especially wide-range agroforestry and PES, may induce positive impacts on outcomes of CFM and REDD+ related projects.

Another vital *contextual factor* is the Growth and Employment Strategy Paper (GESP) that considers projection of mining and infrastructure as the country's current major economic strategy. Having monetary poverty (40.2%), and low investment share (17.4% of the total GDP), addressing issues related to mining and infrastructure development in Cameroon would be difficult (MINEPAT 2009, cited in Dkamela, 2010). Thus, the development needs of the country, including technology related to infrastructure could have potential negative impacts on the forest sector. This is because technological inventions may increase the benefit-cost ratio of harvesting forest products in the absence of effective regulatory instruments or lack of alternative employment opportunities (see Agrawal and Angelsen, 2009). Besides, multinational corporations and foreign companies from the affluent countries: the United States of America (USA), China, Australia and Korea are the main actors in the mining sector (see Dkamela, 2010). Mining and infrastructure development strategies are intrinsically in contradiction with REDD+ goals in the case of Cameroon. Mining permits issued in the country apparently incorporate lands that are within forest concessions, and protected areas including a site that is recognized as a world heritage (Ngniado 2009, cited at Dkamela, 2010). Thus, the forest sector (including CFs) is under potential threat due to contextual factors that involve technology and external agencies related to economic and political issues in the mining sector. The multinational corporations have vested interest in the mining sector, and hence, would be difficult to influence their interest through policy design under the existing CFM or future REDD+. As noted earlier, the Kilum-Ijim forest has been conserved for its endemic biodiversity and livelihood interest of the local communities. However, under the current national development plans and the interest of the multinational companies, there could be uncertainties. Nonetheless, much depends on whether there is potential underground deposit which is economically viable for mining in the case of Kilum-Ijim.

*Contextual factors* associated with rapid changes in population and market forces may have considerable impacts on the success of CFM rather than to their absolute levels (Agrawal and Angelsen, 2009). It is difficult to assert the driving factors behind market forces, and higher trend in population growth in the case of Cameroon at this level. Even so, the current development strategy and higher growth rate (2.9%) of the country could have potential negative impacts related to changes in demography and market forces on the success of CFM and future REDD+ projects.

---

<sup>23</sup> Data Source: interview.

*Contextual factors* related to external factors such as global-economy may also have mixed outcomes on the forest sector. This is mainly because Cameroon largely dependence on raw material prices at international market where the government has no (or very little if any) control over (Dkamela, 2010). This contextual factor is significant in the case of Kilum-Ijim forest with regards to Prunus availability in abundance and its potential price at regional or international market levels. For example, in 2008, 18 CFs & Plant Life Sanctuary from Kilum-Ijim participated in regional trade group meeting (see Ingram et al., 2009). It is claimed that higher demand for forest products could induce either long-term sustainable management or exploitation for short-term benefits and free riding (see Agrawal and Angelsen, 2009).

In the case of Kilum-Ijim, thus, whether the impact of (higher) demand for Prunus on CFM or future REDD+ projects would be positive or negative depends much on the conditions related to regional or global market Prices of Prunus as well as the nature of future policy reform and effectiveness of decentralization processes in the forestry sector at national level. In the business as usual scenario, however; the lack of accountability and transparency, and the associated corruption that took place during the last sale of the Prunus might be a good indicator of having negative potential impacts on CFM or future REDD+ projects in the long-term, provided that future land policy in Cameroon remains the same.

Under *contextual factors*, successful CFM also requires government efforts that reduce communities' collective action costs (Agrawal, 2007, cited in Agrawal and Angelsen 2009). This is equally important for the success of REDD+ projects. However, considering the causal factors related to corruption and lack of accountability and transparency associated with the last sale of the Prunus, there would be challenges that hold-back the effectiveness of REDD+ interventions at Kilum-Ijim. Therefore, to address such issues, effective national level policy reform in the forestry sector is imperative in order to reduce collective action costs of communities. This may be achieved through recognition of customary land title and the role of the traditional authorities and user-groups at large by redesigning *the 1994 forestry Law*.

In summary, CFs in the context of Cameroon including the Kilum-Ijim forest shall face two major challenges related to contextual factors at national level. Firstly, CFs are originally classified under the NPF forestland category where land-use conversion is legally recognized, and that forest massif undergoes the most significant conversion and degradation. Ironically, REDD+ is not considered in the NPF, implying that CFs are excluded from potential REDD+ projects. Secondly, although there may be some mixed outcomes, CFs shall potentially suffer from the current and future national development plans: the rural sector agriculture (RSDS) and the mining and infrastructure (GESP) development strategies.

These circumstances illustrate that there is no elaborated plan of action for REDD+ at national level in Cameroon. And this may have significant negative implications for forest-dependent communities under the future REDD+. In its current status, the national REDD+ strategy signifies a clear alienation of the forest-dependent communities from benefiting from potential REDD+ projects. Precluding CFs from REDD+ projects shall in turn significantly

undermine the success of REDD+ objectives. If, for example, forest-dependent communities damage forestlands, REDD+ is unlikely to achieve its goals of avoiding leakage (if the damage takes place off-REDD+ project site). Similarly, REDD+ may not achieve additionality and permanence provided that the damage takes place where REDD+ projects operate. Forest-dependent communities can damage forests in many ways. For example, they may involve in slash-and-burn activities in search of additional land for agriculture in order to enhance their income source.

## 7. Conclusion

The aim of this study was to assess REDD+ and CFM in the context of Cameroon by focussing on local level issues concerning forest-dependent communities. The paper assesses a CFM based on the four clusters stated in the theoretical approach focussing in the Kilum-Ijim area. It seeks to demonstrate that better design of the CFM success factors (see table 2) in the context of REDD+ policy framework is key to achieving REDD+ goals through addressing the 3E+ in the context of Cameroon.

**Resource system:** as shown in the analysis section, there are significant CFM success factors related to the Community Forests (CFs): medium-sized; well-defined boundaries; and easy to monitor. REDD+ can benefit from these success factors, however, there is also major distinction between CFM and REDD+. REDD+ values the amount of carbon in the trees and belowground. Thus, considering the amount of carbon community based REDD+ project can store, cost-effective monitoring as well as instruments that can hold rule violators accountable are mandatory. Besides, regarding predictability of benefit flows from forests and stored carbon, establishment of credible national REDD+ funding system for carbon payments shall be needed in order to create a buffer between international and local carbon markets in the country. However, the success of these distinctions will depend much on the feasibility of institutional arrangements.

**Institutional arrangements:** there are also significant success factors related to CFM institutional arrangements that REDD+ could potentially benefit from. The success factors are: conflict resolution practices, trust building and facilitation of community participation and collective actions. Besides, the traditional or indigenous knowledge and practices (i.e., *the traditional governing system* and *traditional village justice system*) are potential success factors that should be promoted under REDD+. However, there are critical issues such as related to unclear and insecure title to land, forest and carbon ownership and rights. Besides, high risk of elite capture may have negative implications on forest-dependent communities. Under REDD+, reform (i.e., recognition of customary landholding) coupled with effective decentralization processes in the forestry sector (e.g., the *1994 Forestry law*, and the codes under it such as the AFF) could possibly address the systematically centralized management institution. Furthermore, REDD+ shall need to create conducive environment to address the distinction points between CFM and REDD+ highlighted above under the *resource system*.

**User-group related:** there are also CFM success factors related to user-groups at Kilum-Ijim that should be promoted under REDD+. These success factors include: small-to-medium sized user-groups; dependent on their forests; competent in institutional capacity; and user-group and their members' interdependence. REDD+ can also benefit from the traditional authority leadership capacity in the Kilum-Ijim area. The Fon and Kwifon, having influential capacity in governing the area, REDD+ could take advantage of the experiences of the leadership in organizing user-group collective actions at lower implementation costs provided that their role is well-recognized. Thus, user-groups characterized by the above mentioned success factors, and provided that they acquire sufficient support in technical capacity, REDD+ should benefit in achieving: *effectiveness* through addressing deforestation, sustainably managing their forests, and enhancing forest carbon stocks; *efficiency* through involving user-groups in monitoring activities at lower costs; and *equitable* benefit distribution and *co-benefits* – provided that the issues of institutional arrangements described above are met.

**Contextual factors:** in order to address the contextual factors, Cameroon would need to revise the eligibility of forest zones under the future REDD+, e.g., the NPFZ zone particularly CFs. These circumstances then bring up the question of the future REDD+ capacity to inspire far-reaching, appropriate, feasible and productive reforms. Referring to the RSDS development strategy, Cameroon can benefit by adopting the REAP prescription, such as place-specific in semi-urban areas, expansion of wide-range agroforestry and by encouraging PES in distant rural areas. The last two are relevant in the case of Kilum-Ijim. However, the GESP development strategy, and the higher population growth of the country shall remain a challenge. It shall be difficult to influence the GESP strategy through policy change due to the economic conditions of the country and the vested interests of the powerful transnational companies from the big economy countries. In addition, it is crucial to understand the causal factors behind the higher population growth and market forces in the country. Meanwhile, it is essential to identify a threshold of forestland conversion to agriculture and mining related land-uses, and seek for effective REDD+ incentives to minimise this threshold to a level that avoids potential social-ecological detrimental effects. In line with this, it is central to contemplate the extent REDD+ can address the issue of corruption and illegal forest activities (IFAs). Furthermore, under contextual factors, success of CFM or REDD+ requires government efforts that reduce communities' collective action costs.

In summary, there are potential CFM success factors related to the resource system and user-groups in the context of Kilum-Ijim. Thus, REDD+ goals could be potentially achieved by promoting those success factors. Nevertheless, although policy design may induce certain positive impacts, institutional arrangements and contextual factors will have substantial weight on the success of REDD+ goals in the context of Cameroon including Kilum-Ijim. Therefore, it is worth mentioning that success of REDD+ projects on the ground are only partly ensured through policy design. There are factors that are not easy to be influenced through policy change (e.g., exogenous factors) that may in part dictate the actual outcomes. Likewise, the results of REDD+ will also depend on parameters that are beyond the control of the government.

## 8. Further research highlight

REDD+ initiative is underway in many tropical developing countries. Pilot projects have been in progress, and that changes in national policies and legislation have been promulgated to accommodate REDD+. Drawing lessons from existing CFM institutions, as this study tried to do so, is essential. Nonetheless, as the case of Cameroon, economic and other interests related to extensive commercial agriculture, mining and infrastructure at national and international levels and subsistence farming at local level seem to challenge changes in national policies and legislation under future REDD+. Thus it is important to identify, describe and analyze the impact of structural factors (e.g., forest-related policies and institutions, economic conditions, social issue and technology) as well as barriers and drivers related to stakeholders and political factors and their interplay on land-use change at wider perspective. This approach is essential to describe land-use changes and conceive of suitable integrated forest management tools in order to inform policies such as related to REDD+ initiatives.

### Bibliographies:

Agrawal, A., and Angelsen, A. (2009). 'Using community forest management to achieve REDD+ goals' Chapter 16 of a book by: Angelsen, A., Brockhaus, M., Sills, E., Sunderlin, W. D., Wertz-Kanounnikoff, S. (2009). *Realizing REDD+: National Strategy and Policy Options*. CIFOR, Bogor, Indonesia, pp. 1-361. Also available at: [www.cifor.cgiar.org](http://www.cifor.cgiar.org).

Asanga, C., A. (2001). *Facilitating Viable Partnership in Community Forest Management in Cameroon: The Case of the Kilum-Ijim Mountain Forest Area*. Chapter 2 of a book by: Wallenberg, E., Edmunds, D., Buck, L., Fox, J., Brodt, S. (2001). *Social Learning in Community Forests*. CIFOR, Indonesia, pp. 1-209. Also available at: [www.cifor.cgiar.org](http://www.cifor.cgiar.org)

Board on Sustainable Development (1999) *Our Common Journey: A transition toward sustainability*. Washington DC, National Research Council and National Academy Press. Executive Summary. pp. 1-14.

Brown, S. (Principal Investigator) (2002b). *Land use and forests, carbon monitoring, and global change. Cooperative Agreement between Winrock International and the EPA, ID# CR 827293-01-0*. Winrock International, pp. 1-33. Available at <http://www.winrock.org/what/PDF/eco/Summary%20of%20project--Brown%202002.pdf>

Bryman, A. 2008. *Social Research Methods*. Oxford: Oxford University Press.

Carter, J., and Gronow, J. (2005). *Recent Experience in Collaborative Forest Management. A Review Paper, Occasional Paper, No. 43, Center for International Forestry research (CIFOR)*, pp. 1-48. Also available online at: ([www.cifor.cgiar.org/publications/papers](http://www.cifor.cgiar.org/publications/papers)).

Cerutti, P., O., Nasi, R., and Tacconi, L. (2008). *Sustainable forest management in Cameroon needs more than approved forest management plans*. *Ecology and Society* 13(2): 36.

- Corbera, E., Estrada, M., May, P., Navarro, G., Pacheco, P. (2010b). Rights to forests and carbon. Insights from Mexico, Brazil and Costa Rica. In: Paper Presented at the ‘Oaxaca Workshop on Forest Governance, Decentralisation and REDD+’, Mexico, 31 August–03 September 2010, pp. Available at: [www.cifor.cgiar.org](http://www.cifor.cgiar.org) or [www.ForestsClimateChange.org](http://www.ForestsClimateChange.org)
- Costenbader, John (Ed.) 2009. Legal Frameworks for REDD: Design and Implementation at the National Level. IUCN, Gland, Switzerland. xiv + 200 pp.
- Cotula, L. and Mayers, J. (2009). Tenure in REDD – Start-point or afterthought? Natural Resource Issues No. 15. International Institute for Environment and Development. London, UK, pp. 1-56.
- Denman, K.L., G. Brasseur, A. Chidthaisong, P. Ciais, P.M. Cox, R.E. Dickinson, D. Hauglustaine, C. Heinze, E. Holland, D. Jacob, U. Lohmann, S Ramachandran, P.L. da Silva Dias, S.C. Wofsy and X. Zhang, 2007: Couplings Between Changes in the Climate System and Biogeochemistry. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 500-587.
- Dkamela, G.P. (2010). The context of REDD+ in Cameroon: Drivers, agents and institutions. Occasional paper 57. CIFOR, Bogor, Indonesia, pp. 1-63.
- Doyle, G. (2009). " Additionality and Permanence". Chapter 4 of a book by: Costenbader, John (Ed.) 2009. Legal Frameworks for REDD: Design and Implementation at the National Level. IUCN, Gland, Switzerland. Xiv +200 pp.
- Dressler, W., Scher, B., Schoon, M., Brockington, D., Hayes, T., K., C., A., McCarthy, J., and Krishna, S. (2010). From hope to crisis and back again? A critical history of the global Community-based natural resource management (CBNRM) narrative, Thematic Section CBNRM, Foundation for Environmental Conservation, pp. 5-15.
- Dubois, A. and Lowore, J. (2000). The ‘journey’ towards collaborative forest management in Africa: Lessons learned and some Navigational aids, an overview, International institute for Environment and Development (iied), Forestry and Land Use Program, Forestry and Land Use series No. 15, pp. 1-103.
- Egbe, S.E.(2001). The concept of community forestry under Cameroonian Law. Journal of African Law 45: 25-50.
- Ezzine de Blas, D. & Ruiz Pérez, M. (2006). Cameroonian Community forests: lessons of a decade of implementation. Department of Ecology Autonomous University of Madrid, pp. 1-28.
- FAO. (2011). State of the World’s Forests. FAO, Rome, Italy, pp. 1-164.
- FAO. (2010a). The Global Forest Resources Assessment 2010. FAO Forestry Paper 163. Rome, Italy, pp. 1-340.
- FAO. (2005). Global Forest Resources Assessment: extent of forest resources. Chapter 2, pp. 1-320. Also available online at: <http://www.fao.org/docrep/008/a0400e/a0400e00.htm>

- Fomété, T., Vermaat, J., Gardner, A., DeMarco, J., Asanga, C., Tekwe, C., Percy, F. (2001). A Conservation Partnership: Community Forestry at Kilum-Ijim, Cameroon, Rural Development Forestry Network, Russell Press Ltd, Nottingham, UK, ISBN 0 85003 5392, pp. 9-16.
- Forboseh, P., F., Keming, E., C., Toh, C., L., Wultof, I., N., B. (2003). Monitoring of Kilum-Ijim Forest Bird Communities: initial findings. Bird Conservation International, United Kingdom, pp. 255-271.
- Freudenthal, E., Nnah, S., and Kenrick, J. (2011). Rights, Forests and Climate Briefing Series. Forest Peoples Programme, Fosseway Business Centre, Stratford Road, UK, pp. 1-28. Also available at: [www.forestpeoples.org](http://www.forestpeoples.org)
- Geist, H.J. and Lambin, E.F. (2001). What drives tropical deforestation? A meta-analysis of proximate and underlying causes of deforestation based on subnational case study evidence. Louvain-La-Neuve: University of Louvain, pp. 1-116. Also available at:
- Hardin, G. (1968). The Tragedy of the Commons: The population problem has no technical solution; it requires a fundamental extension in morality. *AAAs, Science* Vol. 162, No. 3859; DOI: 10.1126/science.162.3859, pp. 1243-1248. Also available at: <http://www.sciencemag.org/content/162/3859/1243.full>
- Ingram, V., Awono, A., Schure, J., Ndam., N. (2009). Guidance for a National *Prunus africana* Management Plan for Cameroon. CIFOR, pp. 1-155.
- IPCC. (2001). Climate Change 2001: Impacts, Adaptation and Vulnerability. Working Group II IPCC Third Assessment Report.
- Larson, A., M. and Ribot, J., C. (2009). ‘Lessons from forestry decentralisation.’ Chapter 14 of a book by: Angelsen, A., Brockhaus, M., Sills, E., Sunderlin, W. D., Wertz-Kanounnikoff, S. (2009). Realizing REDD+: National Strategy and Policy Options. CIFOR, Bogor, Indonesia, pp. 1-361. Also available online at: [www.cifor.cgiar.org](http://www.cifor.cgiar.org).
- Lawlor, D. and Huberman, D. (2009). ‘Reduced Emissions from Deforestation and Forest Degradation (REDD) and human rights’ Chapter 12 of a book by: Campese, J. et al. (Eds), Rights-based approaches: Exploring issues and opportunities for conservation, pp. 269–286. Bogor, Indonesia: CIFOR; and IUCN.
- Margaret M. Skutsch, Patrick E. van Laake, Eliakimu M. Zahabu, Bhaskar S. Karky and Pushkin Phartiyal. (2009). ‘Community monitoring in REDD+’. Chapter 8 of a book by: Angelsen, A., Brockhaus, M., Sills, E., Sunderlin, W. D., Wertz-Kanounnikoff, S. (2009). Realizing REDD+: National Strategy and Policy Options. CIFOR, Bogor, Indonesia, pp. 1-361. Also available online at: [www.cifor.cgiar.org](http://www.cifor.cgiar.org).
- Margaret M. Skutsch, E. Zahabu, Bhaskar S. Karky. (2009). Community forest management under REDD: policy conditions for equitable governance. XIII World Forestry Congress, paper contribution to the Kyoto, Buenos Aires, Argentina. 18-25 October 2009, pp. 1-9.

- Mikkelsen, B. (2005). *Methods for Development Work and Research: A New Guide For Practitioners*, Sage Publications India, Pvt Ltd B-42, Panchsheel Enclave, New Delhi, ISBN 81-7829-482-6 (India Pb), pp. 1-373.
- Morgera, E. (2009). ‘‘ Participation, Balancing of Rights and Interests, and Prior Informed Consent’’. Chapter 2 of a book by: Costenbader, John (Ed.) 2009. *Legal Frameworks for REDD: Design and Implementation at the National Level*. IUCN, Gland, Switzerland. xiv + 200 pp.
- Ostrom, E. (2009). A General Framework for Analyzing Sustainability of Social-Ecological Systems. *AAAS, Science* Vol. 325, No. 419; DOI: 10.1126/science.1172133, pp. 418- 422. Also Available at: <http://www.sciencemag.org/content/325/5939/419.full.html>
- Ostrom, E. (2007). A diagnostic approach for going beyond panaceas. *The National Academy of Sciences of the USA*, Vol. 104, No. 39, pp. 15181–15187. Also available online at: [www.pnas.org/cgi/doi/10.1073/pnas.0702288104](http://www.pnas.org/cgi/doi/10.1073/pnas.0702288104)
- Oyono, P., R., (2005). *The Foundations of the Conflict De Langage over Land and Forests in the Southern Cameroon*. Center for International Forestry Research, African Study Monographs, 26(3): 115-144.
- Parker, C., Mitchell, A., Trivedi, M., Mardas, N. *The Little REDD+ Book* (2009). An updated guide to governmental and non-governmental proposals for reducing emissions from deforestation and degradation. Global Canopy Programme, John Krebs Field Station, Oxford OX2 8QJ, UK, pp. 1-71. Also available at: [www.littleREDDbook.org](http://www.littleREDDbook.org)
- Peskett, L., Huberman, D., Bowen-Jones, E., Edwards, G. and Brown, J. (2008). ‘‘Making REDD work for the Poor’’. A Poverty Environment Partnership (PEP) Report. IUCN; ODI; UNDP; SIDA; ADB; DFID; Ministère de l’Ecologie, de l’Energie, du Développement durable et de l’Aménagement du territoire; UNEP-WCMC. Available online at: <http://www.energyandenvironment.undp.org/undp/indexAction.cfm?module=Library&action=GetFile&DocumentAttachmentID=2493>.
- Pye-Smith, C. 2010 *Cameroon’s hidden harvest*. CIFOR, Bogor, Indonesia, pp. 1-21. Also available online at: [www.cifor.cgiar.org/pro-formal](http://www.cifor.cgiar.org/pro-formal).
- REDD Cameroon Pilot Project (2010): *The REDD Cameroon Pilot Project (2008-2010) Key Achievements*, Ministry of Environment and Nature Protection (MINEP) and GAF AG (Germany), pp. 1-4. Also available online at: [www.redd-services.info](http://www.redd-services.info)
- Robiglio, V., Ngendakumana, S., Gockowski, J., Yemefack, M., Tchienkoua, M., Mbile, P., Tchawa, P., Tchoundjeu, Z., Bolognesi, M. (2010). *Reducing Emissions From All Land Uses In Cameroon: Final National Report*. ASB Partnership for the Tropical Forest Margins. Nairobi, Kenya, Pp. 1-111.
- Rudel, T. (2009). ‘‘ Reinforcing REDD+ with reduced emissions agricultural policy’’. Chapter 15 of a book by: Angelsen, A., Brockhaus, M., Sills, E., Sunderlin, W. D., Wertz-Kanounnikoff, S. (2009). *Realizing REDD+*:

National Strategy and Policy Options. CIFOR, Bogor, Indonesia, pp. 1-361. Also available at: [www.cifor.cgiar.org](http://www.cifor.cgiar.org).

Sam, T., and Shepherd, G. (2011). Community Forest Management. Background Paper for: The United Nations Forum on Forests Secretariat UNFF9: “Forests for People, Livelihoods and Poverty Eradication”, pp. 1-46.

Savaresi, A., and Morgera, E. (2009). “Ownership of Land, Forest and Carbon”. Chapter 1 of a book by: Costenbader, John (Ed.) 2009. Legal Frameworks for REDD: Design and Implementation at the National Level. IUCN, Gland, Switzerland. xiv + 200 pp.

Scholz, I. and Schmid, L. (2008). Reducing Emissions from Deforestation and Forest Degradation in Developing Countries: Meeting the Main Challenges Ahead. German Development Institute, Tulpenfeld 6, 53113 Bonn, pp. 1-4. Also available at: <http://www.die-gdi.de>

Silverman, D. (2005). Doing Qualitative Research: A Practical Handbook, Sage Publications India, Pvt Ltd B-42, ISBN 978-1-4129-0196-3, pp. 1-395.

Stern, N. (2006). The Economics of Climate Change. The Stern Review, Part IV: Policy Responses for Mitigation. Cambridge University Press, pp. 324-346. See: [http://www.hm-treasury.gov.uk/sternreview\\_index.htm](http://www.hm-treasury.gov.uk/sternreview_index.htm)

Stiglitz, J., E., Sen, A., Fitoussi, J., P. (2009). Report by the Commission on the Measurement of Economic Performance and Social Progress (CMEPSP). France, Commission on the Measurement of Economic Performance and Social Progress (CMEPSP). pp. 1-291. Available from: <[www.stiglitz-sen-fitoussi.fr](http://www.stiglitz-sen-fitoussi.fr)>.

Tacconi, L., Downs, F., Larmour, P., (2009). “Anti-corruption policies in the forestry sector and REDD+”. Chapter 13 of a book by: Angelsen, A., Brockhaus, M., Sills, E., Sunderlin, W. D., Wertz-Kanounnikoff, S. (2009). Realizing REDD+: National Strategy and Policy Options. CIFOR, Bogor, Indonesia, pp. 1-361. Also available at: [www.cifor.cgiar.org](http://www.cifor.cgiar.org).

United Nations Economic and Social Council. (2010). Community-based forest management, United Nations Forum on Forests, Ninth session, New York, 24 January-4 February 2011, Item 5 (a) of the provisional agenda, Forests for people, livelihoods and poverty eradication, pp. 1-20.

UNFCCC. (2010). AD HOC Working group on long-term Cooperative Action Under the Convention, 11<sup>th</sup> session, Bonn, 2–6 August 2010, Item 3 of the provisional agenda, Text to facilitate negotiations among Parties, pp. 1-45.

UNFCCC. (2009). Report of the Conference of the Parties on its Fifteenth Session, Held in Copenhagen from 7-18 December 2009. Draft decision -/CP.15, Proposal by the President, Copenhagen Accord, pp. 1-5.

UNFCCC. (2007). Report of the Conference of the Parties on its Thirteenth Session, Held in Bali from 3 to 15 December 2007, pp. 1-60.

UNFCCC. (2007). Climate Change: Impacts, Vulnerabilities and Adaptation in Developing Countries, pp. 1-68.

UN-REDD Programme. (2009). “Operational Guidance: Engagement of Indigenous Peoples and Other Forest Dependent Communities”. Working Document – 25 June 2009, pp. 1-18. Available online at: [http://www.unredd.net/index.php?option=com\\_docman&task=doc\\_download&gid=455&Itemid=53](http://www.unredd.net/index.php?option=com_docman&task=doc_download&gid=455&Itemid=53).

Westholm, L., Henders, S., Ostwald, M., and Mattsson, E. 2009. Assessment of existing global financial initiatives and monitoring aspects of carbon sinks in forest ecosystems – The issue of REDD, Focali Report No 2009:1. Forest, Climate and Livelihood Research Network, Sweden, pp. 1-107.

Yin, R. (2003). Case Study Research: Design and Methods. London: Sage.

## Interviews

- A member of the traditional authorities – questions: 1, 2, 3, 4, 5, 6, 7
- Coordinator/chairman of the Mfe-Mir community forest (FMI) – questions: 1, 4, 5, 6, 7, 8, 9
- Forest user (member of one of the user-groups) – questions: 1, 10
- *Prunus* tree harvester (also a member of user-groups) – question: 1, 11
- Tourist guide (from tourism Board) – questions: 1, 10, 11
- Council revenue collector – question: 1, 11
- Local elite (a member of the FMIs) – questions: 1, 7, 8, 10, 12

## Appendix I

Interview guide: focuses on one of key informants as per user-group or function that are highly involved in the forest one way or the other:

1. What is your role/function with regards to the Kilum-Ijim forest?
2. How do the various land-use stakeholders interact with each other?
3. How do the forest users, having diverse interest, interact with the forest and among themselves?
4. What are the benefits that communities can get from the forest resource?
5. What forest resource is most valuable?
6. What is the role of the FMIs?
7. How was the management issues related to the last sale of the *Prunus* resources, and who was involved?
8. How and where does the money generated from the forest including the last sale of the *Prunus* used or spend?
9. What is your expectation in the management issues in the future, and what is your plan for the future?
10. What is your view on the last sale of the *prunus* including benefit distribution?
11. Why do you think members of user-groups involved in illegal *Prunus* harvest?
12. What is your overall impression about the last sale of the *Prunus*?

## Appendix II

The Kilum-Ijim forest:

### A. Source of substantial livelihoods to user-groups in Kilum-Ijim area.

The communities have substantial interest in timber and non-timber forest products. For instance, the local communities heavily depend on the forest as an essential source of energy (e.g., fuelwood); carving and construction materials from special timber (e.g., *Polyscias fulva*); water-supply; food (such as honey, vegetables and bush meat through hunt, in which hunt is also part of the traditional and cultural practice by itself); medicine (e.g., supply of medicinal plants such as *Prunus Africana*); high cultural and spiritual values (Forboseh et al., 2003; Fomété et al., 2001; Asanga, 2001). The forest is also a potential income source from tourism (Forboseh et al., 2003).

### B. Home to significant and unique biodiversity.

The Kilum-Ijim Forest area is one of the world's significant biodiversity habitats. It is home to 14 Species of Restricted Range and six Species of Conservation Concern as part of the Important Bird Area (IBA) programme of the BirdLife International (BirdLife International, 2000 and Stattersfield et al. 1998: from Forboseh et al., 2003). This forest is rich in biodiversity such as endemic plant and native wildlife species, particularly birds and fish (Fomété et al., 2001). For example, 43 bird species are listed in Cameroon in which 31 of them belong to the Kilum-Ijim forest (Forboseh et al., 2003). Besides, greater number of plant species, mammals, reptiles and amphibians are endemic to this forest (Forboseh et al., 2003; Fomété et al., 2001; Asanga, 2001). Minimum 40 endemic plant species are recognized in the Cameroon highlands, in which five species are endowed solely to this forest reserve (Fomété et al., 2001). Approximately ten endemic species of mammals identified as native in the Cameroon highlands in general and around six as unique to the Bamenda highlands (Fomété et al., 2001). Although less studied, about 11 species of reptiles and amphibians identified as endemic to Cameroon highlands, two of them are limited to this forest (Fomété et al., 2001).

Source: the text in *Appendix II (A and B)* is summarized by the author based on secondary data as referenced.