An analysis of the institutional framework for REDD+ implementation in Cameroon

D. ALEMAGIa,b, D. NUKPEZAHc, L. DUGUMAd and K. FOBISSIEe,f

^aInstitute for Environment and Sanitation Studies (IESS), International House, University of Ghana, 1 Annie Jiagge Road, Legon, Accra, Ghana ^bFokabs Inc. 2500 St. Laurent Blvd, Ottawa, ON K1H 1B1, Canada.

^cInstitute for Environment and Sanitation Studies (IESS), International House, University of Ghana, 1 Annie Jiagge Road, Legon, Accra, Ghana ^dGlobal Evergreening Alliance, suite 12, 24 Lakeside Drive, Burstwood East, Victoria, Australia

^eFokabs Inc. 2500 St. Laurent Blvd, Ottawa, ON K1H 1B1, Canada.

^fSchool of International Development and Global Studies, University of Ottawa, Canada

Email: dalemagi@yahoo.co.uk

HIGHLIGHTS

- While some strengths could be ascribed to institutions that play a fundamental role in implementing REDD+ in Cameroon, these institutions still face a series of threats and weaknesses that could impede REDD+ implementation.
- A series of weaknesses can also be attributed to institutions that play a fundamental role in REDD+ implementation in Cameroon.
- There exist a series of opportunities that institutions responsible for REDD+ implementation in Cameroon can make use of in order to advance REDD+ implementation.
- Specific recommendations for overcoming weaknesses and threats that institutions responsible for implementing REDD+ in Cameroon face
 are identified including capacity building in monitoring, reporting and verification (MRV); clarification of rights issues; proper institutional
 coordination; promotion of accountability and transparency in forest management; and peace building.
- Implementation of the aforementioned recommendations the paper argues is fundamental to successful REDD+ implementation in the country.

SUMMARY

REDD+ is a mechanism that is used to advance the efforts of developing countries that are endowed with forests to mitigate climate change by decreasing emissions from deforestation and forest degradation, encouraging conservation and the sustainable management of forests, as well as forest carbon enhancement. In this paper, using a qualitative approach, an analysis was conducted of the institutional framework that governs REDD+ implementation in Cameroon. The roles of the various institutions that play a role in advancing REDD+ implementation in Cameroon were profiled followed by a literature review and, after interviews with REDD+ actors in Cameroon, the results of a SWOT analysis of the institutional framework for REDD+ implementation in Cameroon are presented. It is hoped that the findings of this study will be used by policy makers who are driving the REDD+ process in Cameroon to craft and implement initiatives directed at promoting REDD+ implementation in the country.

Keywords: REDD+, institutional framework, Cameroon, SWOT

Une analyse du cadre institutionnel pour la mise en œuvre de la REDD+ au Cameroun

D. ALEMAGI, D. NUKPEZAH, L. DUGUMA et K. FOBISSIE

REDD+ est un mécanisme qui est utilisé pour faire avancer les efforts des pays en développement qui sont dotés de forêts pour atténuer le changement climatique en diminuant les émissions dues à la déforestation et à la dégradation des forêts, en encourageant la conservation et la gestion durable des forêts, ainsi que la valorisation du carbone forestier. Dans cet article, une analyse du cadre institutionnel qui régit la mise en œuvre de la REDD+ au Cameroun a été réalisée en utilisant une approche qualitative. Les rôles des différentes institutions qui jouent un rôle dans l'évolution de la mise en œuvre de la REDD+ au Cameroun ont été profilés, suivis d'une revue de la littérature et des entretiens avec les acteurs de la REDD+ au Cameroun, les résultats d'une analyse SWOT du cadre institutionnel de la mise en œuvre de la REDD+ au Cameroun ont été présentés. Nous espérons que les résultats de cette étude seront utilisés par les décideurs politiques qui conduisent le processus REDD+ au Cameroun pour élaborer et mettre en œuvre des initiatives visant à promouvoir la mise en œuvre de la REDD+ dans le pays.

Análisis del marco institucional para la aplicación de REDD+ en Camerún

D. ALEMAGI, D. NUKPEZAH, L. DUGUMA y K. FOBISSIE

REDD+ es un mecanismo que se utiliza para impulsar los esfuerzos de los países en desarrollo dotados de bosques para mitigar el cambio climático mediante la disminución de las emisiones derivadas de la deforestación y la degradación forestal, el fomento de la conservación y la gestión sostenible de los bosques, así como la mejora del carbono forestal. En este artículo se utiliza un enfoque cualitativo para analizar el marco institucional que rige la implementación de REDD+ en Camerún. Después de definir los papeles de las diferentes instituciones que desempeñan un papel en el impulso de la implementación de REDD+ en Camerún se hizo una revisión bibliográfica, y tras entrevistar a los actores de REDD+ en Camerún, se presentaron los resultados de un análisis DAFO del marco institucional para la aplicación de REDD+ en Camerún. Se espera que los responsables políticos que impulsan el proceso de REDD+ en Camerún utilicen las conclusiones de este estudio para elaborar y aplicar iniciativas dirigidas a fomentar la aplicación de REDD+ en el país.

INTRODUCTION

Climate change is one of our planet's greatest contemporary socio-economic and environmental challenges (Chomitz et al. 2006). It is a serious threat that continues to have undesirable consequences that devastate development in both developed and developing countries. In the words of the former United Nations Secretary General Mr. Ban Ki-moon, climate change "is the most global of problems facing our times" (Ki-moon 2007). The global nature of the causes and consequences of climate change has led to international action for formulating several policy responses (Palmer and Engel 2009, Somorin et al. 2012). An example of such a policy response identified by the United Nations Framework Convention on Climate Change (UNFCCC) is the REDD+ mechanism.

The REDD+ mechanism has emerged in recent years as a mechanism that can be employed to promote the voluntary efforts of developing countries that house a significant amount of forest to mitigate climate change by reducing emissions from deforestation and forest degradation, promoting conservation and the sustainable management of forests, and enhancing forest carbon stocks (UNFCCC 2008). Furthermore. REDD+ has been described as an incentive for forestrich countries in the developing world to protect and better manage their forest resources since it offers a financial value on the carbon sequestered in the forests of these countries (UNFCCC 2008).

Cameroon is one of those countries in Central Africa that expressed interest in the REDD+ mechanism and, as a result, a series of initiatives and institutions have been designed to advance its implementation (Figure 1). Important among these initiatives and institutions is the REDD+ Steering Committee, which has a Technical Secretariat, other important members like Cameroon's Focal Point of the United Nations Framework Convention on Climate Change (UNFCCC), and the country's National REDD+ Coordinator (FCPF 2012).

Furthermore, Cameroon is also an important member of the Central African Forest Commission (COMIFAC) and has participated in REDD+ negotiations at the international level since its inception in 2005. Cameroon has also contributed to formulating several country submissions to the UNFCCC that have played a fundamental role in advancing REDD+ implementation, especially from an international negotiation perspective (REDD+ Countries Database 2011).

The Forest Carbon Partnership Facility (FCPF) readiness funds provided policy inputs such as information and knowledge, resources, facilitation of private sector engagement in REDD+ and the capacity building of relevant REDD+ actors (civil society organization networks, indigenous people organization networks, public administration) that feed into the REDD+ policy making process (Chia et al. 2019). As Chia et al. (2019) further opine, the funds further supported related processes such as stakeholder consultations to define procedures, processes, institutional organization, strategic targets, objectives and instruments to achieve policy goals. It is important to underscore that Cameroon is at the end of its REDD+ readiness phase first commitment period with a REDD+ national strategy that has been developed which underscores the role of transformational change in achieving emission reductions in the forestry sector through REDD+ (MINEPDED 2018, Chia et al. 2019).

Several studies have been undertaken in Cameroon that are related to institutions governing REDD+ implementation. For instance, Sama and Tawah (2009) prescribed an overview of Cameroon's forestry regulatory framework vis-a-vis REDD+ implementation. Dkamela (2011) comprehensively described the REDD+ readiness process in Cameroon. Other studies have focused on other aspects of REDD+ in Cameroon, including a synthetic overview of REDD+ stakeholders' perspectives (Alemagi et al. 2014), a policy framework for strategic implementation of REDD+ (Somorin et al. 2013), the State of research on effectiveness and equity (2Es) in forests management regimes in Cameroon and its relevance for REDD+ (Chia et al. 2013), forest conservation policy and social safeguards frameworks for REDD+ in Cameroon (Ngendakumana et al. 2017), and the future for community forestry and REDD+ in Cameroon (Bernard and Minang 2019). Despite all these studies, there remains a paucity of studies analyzing the institutional framework governing REDD+ implementation in Cameroon. Indeed, this provides a robust underpinning of why this study has been conducted. As such, this study sets out to:

- analyse the institutional framework governing REDD+ implementation in Cameroon; and
- suggest possible pathways for overcoming weaknesses and threats faced by institutions responsible for REDD+ implementation in Cameroon.

The launching of the first REDD pilot project 0 0 Presentation of the REDD Readiness Plan 8 Concept Note (R-PIN) and validation by the Creation of the National Observatory on World Bank Climate Change (ONACC) 2 0 0 9 2 Sensitization and capacity building Process of developing the country's REDD 0 workshops, public participation meetings Readiness Preparation Proposal (R-PP) with stakeholders launched 0 2 Creation of a National REDD Civil Society Official creation of the REDD+ Steering 1 Platform 1 Committee 2 0 Submission of the R-PP to the World Bank National workshop for the validation of the 1 2 country's R-PP 2 0 Validation of the R-PP by the World Bank Initial elaboration of activities for the development of the national REDD+ strategy 3 2 0 Mid-term progress report and request for additional funding

2

0

1 9

FIGURE 1 Timeline of the fundamental initiatives and institutions formulated to advance the REDD+ in Cameroon (Source: Adapted from Alemagi et al. 2014)

It is hoped that the findings of this study will be used by policymakers who are driving the REDD+ process in Cameroon to craft and implement policies, plans, and programs directed at promoting REDD+ implementation in the country.

METHODS

Data were collected from both primary and secondary sources. Specifically, we conducted a synthetic evaluation of data from secondary sources including government legislation, policies, plans, and programs related to REDD+, relevant 'grey' literature on REDD+ in Cameroon in the form of reports and working papers from other REDD+ actors, including national and international non-governmental organizations, elected representatives, research institutions, the private sector, the media, and development partners. In addition, relevant peer-reviewed literature was also harvested and evaluated to obtain further

insight into the institutional framework governing REDD+ implementation in Cameroon.

Validation of REDD+ Strategy by the

REDD+ Steering Committee

Data from secondary sources were supplemented with semi-structured interviews with 31 individuals representing all the REDD+ actors in Cameroon, including the government, national and international non-governmental organisations (NGOs), research institutions, the private sector, forest-dependent community associations, and development partners (Table 1). Although this sample size may not be largely representative, it is illustrative and represents the views of all the stakeholders in the REDD+ process in Cameroon.

Interview protocols focused on the institutional framework governing REDD+ implementation in Cameroon, followed by themes obtained from a synthetic evaluation of secondary data. We developed these themes in two stages. Firstly, a comprehensive review of relevant reports and relevant working papers related to the institutional framework governing REDD+ implementation was carried out. Secondly, a detailed

FIGURE 2 Map of Cameroon and its Regions. Tree icons represent Cameroon's tropical rain forest of the Congo Basin (Source: Adapted from Mertens et al. 2001, Alemagi and Kozak 2010)

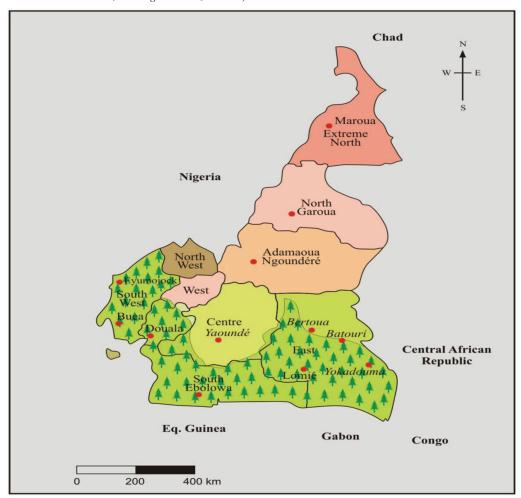


TABLE 1 Affiliations of the interviewees

Affiliations	Interviewees
Government	9
NGOs	6
Research institutions and universities	3
The private sector	4
Local Forest-dependent community association	7
Development partners	2

evaluation of relevant peer-reviewed literature was conducted. While we explored a breadth of topics, six themes emerged that were related to the institutional framework governing REDD+ implementation in Cameroon: roles played by institutions regarding REDD+ implementation in Cameroon, strengths associated with institutions implementing REDD+ in Cameroon, weaknesses associated with institutions implementing REDD+ in Cameroon, opportunities for institutions

implementing REDD+ in Cameroon, threats faced by institutions implementing REDD+ in Cameroon, and strategies to overcome weaknesses and threats faced by institutions responsible for REDD+ implementation.

We conducted interviews in French and English during field visits and by email and telephone, each lasting about 40 minutes. During the interview process, attempt was made to obtain information or responses to the following questions:

- What role does your institution play with regard to REDD+ implementation?
- What are the strengths associated with your institutions as much as REDD+ implementation is concerned?
- What are the prevailing weaknesses associated with your institutions in as much as REDD+ implementation is concerned?
- What are the opportunities for your institution as a result of REDD+ implementation?
- What are the threats your institution is facing regarding REDD+ implementation?

 What strategies could be used to overcome the weaknesses and threats faced by your institutions with regards to REDD+ implementation?

To reduce the occurrence of biased responses, interviewers avoided leading the interviewees during the interviews (following Kvale 1996, Ammenberg 2003, Alemagi et al. 2012) and reacted in a neutral manner by not signaling or providing their preferred answers (Ammenberg 2003). After completion of the interviews, the transcribed data were analysed by selecting the relevant quotes and passages from the transcripts. We then used an open-coding process (following Creswell 1998) to code the passages according to the six emergent themes identified as being related to the institutional framework governing REDD+ implementation in Cameroon. Finally, it is important to note that the SWOT analysis used in the analysis was pooled for all the considered institutions or their interviewed representative personnel. It is also important to note that some of the results obtained were based on the authors' involvement in the REDD+ process in the country.

RESULTS AND DISCUSSION

The results of this study are presented in two sections: (i) Roles of institutions responsible for advancing REDD+ implementation in Cameroon; and (ii) SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis of institutions responsible for REDD+ implementation in Cameroon. Each is presented and examined in turn.

Roles of institutions responsible for advancing REDD+implementation in Cameroon

National REDD+ Steering Committee

The National REDD+ Steering Committee is the main decision-making body of the REDD+ process in Cameroon (Republic of Cameroon 2018). The Steering Committee is responsible for providing political leadership in REDD+ implementation and ensuring active engagement and participation of all actors in the REDD+ process. The following roles and responsibilities are assigned to the National REDD+ Steering Committee when emission reduction programs have been put in place for full-fledged REDD+ implementation (Republic of Cameroon 2018):

- Identify and consult with the different stakeholders or actors, including the private sector, civil society, international NGOs, research institutions, traditional land rights holders, indigenous peoples, parliamentarians, and the media.
- Prevent and manage complaints and disputes related to the allocation and use of land and natural resources related to implementing REDD+.
- Ensure access and benefit-sharing mechanisms are effective in the REDD+ framework, including accountability.

- Ensure coherence between the implementation of REDD+ and the other developmental strategies of the country, including annual and medium-term government budgets.
- Facilitate policy processes needed to define REDD+ related activities.
- Clarify the rights and responsibilities of different levels of government.
- Create new relevant actors with the capacity and authority to implement the REDD+ Strategy.
- Ensure frequent review and evaluation of the implementation of the REDD+ Strategy.

To meet the multiple requirements of the REDD+ process and implementation that range from national to the local level, the National REDD+ Steering Committee is made up of representatives of the following institutions and stakeholder groups:

- Ministry of Territorial Administration and Decentralization
- Services of the Presidency of the Republic
- Services of the Prime Minister
- MINEPDED (Ministry of Environment, Nature Protection and Sustainable Development)
- MINFOF (Ministry of Forest and Fauna)
- Ministry of Regional Planning
- Ministry of Agricultural and Rural Development
- Ministry of Finance
- · Ministry of Livestock, Fishery and Animal Industry
- Ministry of Water Resources and Energy
- Ministry of Mines
- Ministry in charge of Land Affairs
- Ministry of Social Affairs
- Traditional chiefs
- · Civil society
- International NGOs
- Research institutions
- Private sector
- Indigenous people
- Parliamentarians
- the Media

It is important to note that some of these institutions are already playing specific roles and responsibilities that serve to advance REDD+ implementation in the country, as depicted in table 2

The National REDD+ Steering Committee is placed under the supervision of the services of the Prime Minister. The representative of the services of the Prime Minister is the President and is assisted by two Vice Presidents from MINEDPDED and MINFOF. It should be emphasized that the Chairman of the Committee may if need be, invite all persons (including the administrative, technical, and financial partners) to give their views on relevant REDD+ issues.

REDD+ Technical Secretariat

The REDD+ Technical Secretariat is the secretariat of the National REDD+ Steering Committee. It is the technical arm

TABLE 2 Summary description of the role and responsibilities of some institutions responsible for advancing REDD+ implementation in Cameroon

Institutions*	Role and responsibilities
MINEPDED	Oversees climate change issues in the country and coordinates REDD+ related activities. In this vein, it has a UNFCCC focal point and a National REDD+ coordinator.
MINFOF	Implementing forest policies in the country. To this end, it works with MINEPDEP in the execution of REDD+ pilot projects (afforestation or reforestation projects) in the forestry sector in Cameroon.
MINADER	Currently works with MINFOF to promote practices that serve to reduce deforestation and forest degradation like intensification and diversification of cocoa agroforestry systems.
MINFI	Responsible for receiving and disbursing REDD+ funds for any subsequent REDD+ implementation project in the country.
MINEPIA	Implements strategies and policies geared at mitigating deforestation and forestry degradation from the animal husbandry sector.
MINAS	Ensures that there is equitable sharing of benefits or proceeds obtained from the exploitation of forest resources (including revenue from future REDD+ implementation).
MINATD	Municipalities at the local level which will likely be responsible for the management of revenue or proceeds from REDD+ are under this ministry.
MINEE	Design, assess, and implements bioenergy policies and strategies that serve to reduce the adverse impacts of energy projects on the forests and the resources therein.
IRAD	Conducts fundamental and strategic research in the agricultural sector to identify strategies and approaches that serve to reduce deforestation and forest degradation.
Civil society & research institutions	The civil society in Cameroon has a platform that ensures that there is meaningful prior consultation and participation of indigenous and local people in the REDD+ process in the country. Thus, the civil society ensures that the REDD+ process in Cameroon fully take into account the specificities and views of indigenous peoples. Other NGOs (like WWF, IUCN) and international research institutions (like ICRAF, and CIFOR) continue to play a fundamental role in capacity building for REDD+ implementation through the demonstration of pilot projects at the local level.
Development partners	Development partners (like the World Bank and GIZ) currently fund REDD+ pilot projects in Cameroon. Others like GIZ provide technical support to the government of Cameroon on the REDD+ process and other climate change related processes.
Private sector	Private companies (like Wildlife Works Carbon) have conducted REDD+ feasibility studies in Cameroon with the aim of investing in REDD+.

Source: Prime Minster of the Republic of Cameroon, (2012); Alemagi et al. (2014).

*Note: MINFOF = Ministry of Forests and Fauna, MINADER = Ministry of Agricultural and Rural Development, MINFI = Ministry of Finance, MINEPIA = Ministry of Livestock, Fishery and Animal Industry, MINAS = Ministry of Social Affairs, MINATD = Ministry of Territorial Administration and Decentralization, MINEE = Ministry of Water Resources and Energy (MINEE), IRAD = Research Institute for Agriculture and Development.

of the National REDD+ Steering Committee and is responsible for addressing all the technical and operational issues regarding REDD+ implementation in the country. The Secretariat is responsible for monitoring the implementation of REDD+ activities in order to ensure coherence with sector development strategies and policies and REDD+ targets. To perform its technical and operational duties regarding REDD+ implementation, the Secretariat is responsible for working with experts in Monitoring Reporting and Verification (M.R.V.), finance, social issues, and legal and educational matters.

Local REDD+ Operational Units

The Local REDD+ Operational Units are responsible for working mostly at the local level when full-scale implementation begins and will be responsible for ensuring that REDD+ activities at the local level are well implemented. Specifically,

in as much as REDD+ implementation is concerned at the local level, these Units are responsible for performing the following functions (Republic of Cameroon 2018):

- Identify and report on lessons learned from the implementation of REDD+ projects at the local level.
- Monitor and evaluate the implementation of REDD+ programs and projects in the field.
- Identify and report on conflicts and complaints emanating from REDD+ implementation at the local level.
- Provide technical and practical support to project promoters at the local level.

The operational arm of these Units is composed of recruited experts who will work under the technical supervision of Departmental Delegates for the Environment and in close

collaboration with administrations at the departmental, districts, and local levels (Republic of Cameroon 2018).

REDD+ Regional Committees

The REDD+ Regional Committees are responsible for implementing REDD+ activities at the Regional level. Specifically, these Regional Committees are responsible for performing the following functions when full-scale REDD+ implementation commences (Republic of Cameroon 2018):

- Facilitate the implementation of the decisions of the REDD+ Steering Committee and the activities carried out by the REDD+ Technical Secretariat at the Regional level.
- Facilitate debate relating to REDD+ among all stakeholders at the Regional level.
- Formulate proposals for the regional or local REDD+ implementation framework.
- Manage conflicts between REDD+ stakeholders at the regional / local level.

When REDD+ implementation commences, the REDD+ Regional Committees will be composed of experts from REDD+ actors including civil society, international NGOs, research institutions, donor agencies, the media, elected officials, the private sector relevant government ministries, as well as local indigenous and forest-dependent communities. Each committee will hold two sessions a year and decision-making will be by consensus. Extraordinary sessions may, however, be convened by the President of the Committee to provide answers to questions that may require urgent action. The committee meetings will be held within the regional delegation of the MINEPDED (Republic of Cameroon 2018) and will be financed by the state budget and potential support from financial partners.

SWOT analysis of institutions responsible for REDD+ implementation in Cameroon

Strengths

Robust civil society contributions: Civil society at the national and local level especially non-governmental organisations (NGOs), have greatly influenced the REDD+ arena at all levels in Cameroon and have actively participated in the REDD+ readiness process. Several of these organisations contributed to the country's REDD+ readiness preparation proposal (R-PP) and the REDD+ Strategy document. Specifically, they brought in the required expertise to supplement that of the government and other REDD+ actors during the formulation of these documents.

Strong contributions from the government, research institutions and international NGOs: Relevant government ministries in Cameroon like MINEPED and MINFOF, research institutions and international NGOs in the country like the International Centre for Research in Agroforestry (ICRAF), the Centre for International Forestry Research (CIFOR), the Food and Agricultural Organisation (FAO), the

World Wide Fund for Nature (WWF), the Wildlife Conservation Society (WCS), and the International Union for the Conservation of Nature (IUCN) have developed and implemented REDD+ pilot projects that serve to advance REDD+ implementation in the country (Table 3). Indeed, the skills of these institutional bodies in carbon project development and data gathering has been fundamental for project update.

Weaknesses

Inadequate technical experts: Competence tended not to be a key requirement in recruiting management staff at the national and local levels, which poses a challenge to REDD+ implementation in Cameroon (African Development Bank Group 2008). At the national and local levels, well-trained technical and management staff tend to be inadequate for REDD+ implementation in the country. For instance, MINEPDED and MINFOF are not equipped with adequate technical and human personnel that are specialized in REDD+. Thus, while capacity building of institutions is essential for REDD+ in Cameroon, this has often been neglected at the national and local levels. Specifically, it has been demonstrated that M.R.V. for REDD+ readiness in Cameroon is extremely poor (Dkamela 2011, Alemagi et al. 2014). This is because most institutions and organizations in Cameroon lack adequate and proper technical and human resources for MRV. (Minang et al. 2008, Dkamela 2011). As a result, there is no common and comprehensive verification and validation procedure for data procured for MRV (Somorin et al. 2013, Alemagi et al. 2014). Indeed, Minang et al. (2008, p. 169) provide a more detailed assessment of the situation noting that: "geographic/ remotely sensed data and information at Centre de Télédétection et de Cartographie Forestière (CETEL-CAF), MINFOF, Global Forest Watch (GFW), and Institut Nationale de Cartographie (INC) on land use, land cover, and forests have different mathematical, thematic and attribute accuracy levels". Several studies have validated these results. For instance, many scholars have revealed that MRV for REDD+ readiness was not robust enough in Cameroon because of limitations in technical expertise (Angelsen et al. 2009, Shijo et al. 2013).

Right issues: Carbon rights and tenure rights within the context of REDD+ implementation have not been clarified in Cameroon. While Cameroon's REDD+ Readiness Preparation Proposal (R-PP) and Cameroon's National REDD+ Strategy suggest that tenure rights arrangements will be elucidated, provisions for tenure rights arrangements in the country still remain unclear. The fundamental rationale behind this is that Cameroon's forest management is vested in the hands of the State which owns and manages approximately 96 percent of the country's forests (Table 4).

As a result of the fact that the state owns and administers most of the forest in Cameroon, there is currently the usurpation of the rights of access of most forest-dependent communities to the forest and its resources (Sama and Tawah 2009, Nguiffo *et al.* 2009). A senior official from an NGO broached the severity of the issue during a personal interview:

"Apart from a few community forests, the state owns most of the forests in our communities and access of forestdependent communities to these forests is very much restricted.

TABLE 3 REDD+ pilot projects and initiatives in Cameroon

Projects/initiatives	Main activities	Implementing agency	Area of implementation	Duration/level of implementation
1. REDD-ALERT	- Identify the drivers of deforestation - Carbon stock evaluation in land use systems	ASB partnership: IITA, IRAD, ICRAF	Southern central plateau	2009–2011
2. REALU- Reducing emissions from all land uses	- Analysis of the drivers of deforestation - Carbon stock assessment in land use systems - Feasibility of REDD+ at the landscape level - Incentives for mitigating emission at the landscape level	ASB partnership: IITA, IRAD, ICRAF	Efoulan, South Region	2009–2015
3. Pro-Poor REDD Project	 Identify synergies between forest governance and REDD+ Land tenure and carbon rights Analysis of drivers of deforestation and forest degradation Determination of benefit sharing mechanism 	IUCN, DANIDA	Sangha Trinational (TNS) forest block	2009–2012
4. REDD Pilot Project Cameroon	 Evaluation of the rate of deforestation and forest degradation Biomass quantification REDD+ scenario analysis 	GAF AG, GIZ, COMIFAC, MINEPDED	Entire country	2007–2010
5. REDDAF Project	- Development of preoperational services for forest monitoring in Cameroon	GAF – AG	Center Region	January 2011– December 2013
6. Making REDD work for the Congo Basin	- Capacity building on REDD+	WRI	South and East Region	2008–2009
7. Consultation with communities and civil society on REDD in Cameroon	 Consultation with indigenous forest-dependent communities Dissemination of information on REDD+ 	FPP, CED, RRI	South and East Region	Project was implemented in 2010
8. Program on capacity building in the domain of REDD within the Congo Basin	- Backstopping the government in the REDD+ process especially in resource mobilization and UNFCCC negotiations	WWF- CARPO	Ngoyla-Mintom forest block	Implementation started in 2009. End date of the project is not specified
9. Research Project and capacity building on REDD in Cameroon	- Measurement and comparative historical analysis of biomass and carbon stock in degraded and non-degraded forests	Tropenbos- International	TRIDOM Landscape	2008–2011
10. Creating successful conditions and guarantee of community participation in REDD	 Integration of community rights in national and international REDD+ programs Elaboration and promotion of transparent and equitable mechanisms for REDD+ 	FERN	National territory	Project duration is 3 years. Start and end dates are not specified
11. Promoting community land rights in the Congo Basin	- Proviion of recommendations to support the development of legislation promoting land tenure within forest-dependent communities	Rainforest Foundation UK, CED	National territory	Project duration is 2 years. Start and end dates are not specified
12. Comparative study on a global scale on REDD	- Studies on the processes and national policies relating to REDD+ - Studies on REDD+ projects in the field - Research on innovative approach to MRV	CIFOR	Nkolenyeng and Nomedjo community forest	Project is ongoing and will last for 5 years
13. Climate change and forest in the Congo Basin: synergy between mitigation and adaptation	- Analysis of the vulnerability of local communities to climate change and definition of adaptation in selected sites - Analysis of REDD+ opportunities - Formulation of national and regional strategies to incorporate adaptation and mitigation in forest policies	CIFOR	Yokadouma	2010–2014

TABLE 3 Continued

Projects/initiatives	Main activities	Implementing agency	Area of implementation	Duration/level of implementation
14. REDD regional project: project on institutional capacity building on questions link to REDD for sustainable management of the forest of the Congo Basin	 Promote broader participation of all actors in the REDD+ debates Creation of scientific partnership in MRV 	COMIFAC	National territory	Start and end dates are not specified
15. Implementation mechanism for REDD strategies in the Model Forest sites	 Development of strategies for integrating REDD+ in Model Forests Training of experts at the communities level on REDD+ 	African Model Forests Network	Dja et Mpomo and Campo Ma'an Model Forests	Project was envisaged but information on implementation dates is absent
16. Programme TREES	- Help small and medium forest exploiters to produce timber and non-timber forest products in a sustainable manner	Rainforest Alliance	East and South Region	Start and end dates are not specified
17. Support to REPAR Cameroon and its electorate in their contribution to REDD+ implementation in Cameroon	 Analysis of international consensus on REDD+ and implications for local communities Training of parliamentarians on the implications and consensus on REDD+ 	NESDA-CA, CARPE/IUCN	Yaoundé – with parliamentarians	Project was implemented in 2011
18. Axe climate of ProPSEF	 Provision of support to focal points in the elaboration of the R-PP Integrate REDD+ in the activities of several related ministries Detail analysis of actions on REDD+ Provision of support to the implementation of standards for forest carbon 	GIZ, MINEPDED	Yaoundé	2011–2015
19. Sustainable forest management & climate change in Central Africa	- Facilitate the procurement of satellite images in forest zones of Cameroon	JICA, JAFTA, MINFOF, MINEPDED	East and South Region	Project started in 2009. End date is not specified
20. Project on the development of an MRV system	- Development of an operational MRV system for Cameroon	FAO, Brazil research centers	National territory	2012–2014
21. Program of support and institutional capacity building in Cameroon	Installation of a station for receiving secondary satellite images in Cameroon Promote remote sensing and sustainable forest management in relevant government ministries	IRD, MINFOF, MINEPDED	National territory	Project was initiated in 2009. End date is not specified
22. Climate negotiation in the Congo Basin & preparation for REDD	- Support Cameroon in the preparation of their submissions on deforestation within the framework of climate negotiations - Coordination of regional studies on economic growth and deforestation	GIZ, ONF International	National territory	Project started in 2008. End date is not specified
23. Mount Cameroon REDD+ project initiative	- This is still a concept note. Feasibility study has been conducted	WWF, GIZ	Mount Cameroon	No information is available on start and end dates

TABLE 3 Continued

Projects/initiatives	Main activities	Implementing agency	Area of implementation	Duration/level of implementation
24. Takamanda Mone	- Provision of incentives for local communities to conserve forest ecosystems - Management of threatened habitats	WCS, MINEPDED, MINFOF, MINADER, MINEPIA	Takamanda national park	Feasibility study started in 2010 and lasted 18months
25. Mbam and Djerem REDD project initiative	 Development of knowledge and the necessary tools for reducing deforestation Biodiversity conservation around the Mbam & Djerem national park Training and collaboration between stakeholders on the implementation of REDD+ 	WCS, MINEPDED, MINFOF	Mbam & Djerem national Park	Feasibility study conducted. Project is envisaged to last for 5 years
26. Ngoyla-Mintom: CBSP- Conservation and sustainable use of the Ngoyla Mintom forest	Promotion of sustainable management of resources in the entire Ngoyla-Mintom forest block Establishment and piloting of a sustainable financial mechanism (carbon market) for the conservation of the forest block	MINFOF, MINEPDED, WWF, GIZ, Private sector	Ngoyla-Mintom forest block	April 2012–June 2017
27. WWF Ngoyla Mintom program	 Mitigation of environmental impacts from private sector investment Collaborative management of natural resources including protected areas 	WWF	Ngoyla-Mintom forest block	Start and end dates are not specified
28. TNS three-phased concept for carbon finance and PES based sustainable finance	- Extension of investment zone of carbon finance to all the forest block - Extension of MRV system and financial compensation for emission reduction	WWF, GIZ	TNS forest block	Concept note developed. No activities have been implemented
29. Stabilization of carbon emissions in the TNS forest block through sustainable financing and improved livelihood	- Integrated management of forest exploitation, mining, conservation	TNS Foundation	TNS forest block	Project duration is 2 years. Start and end dates are not specified
30. Payment for community ecosystem services	- Generate revenue to invest in REDD+ - Ensure that communities and ecosystems are more resilient to climate change - Assist communities in the management of their revenue	CED, Bioclimate, Plan Vivo	Nkolenyeng and Nomedjo community forest	Project was initiated in 2010. End date is not specified
31. REDD+ initiatives in council forests	- Designed strategies for a communal REDD+ program	Technical center for council forest	National territory	Feasibility study was completed in 2010.

Source: FCPF, 2012; IUCN, 2011

You cannot enter into these forests to harvest non-timber forest products or timber, so our right of access into forests that is supposed to belong to us since we protect them is prohibited"

Inadequate institutional coordination: The efforts undertaken to advance REDD+ implementation especially by the government of Cameroon have been marginal at best. A fundamental problem is that there is inadequate information sharing at the national policy-making level. Within the government, MINEPDED and MINFOF are the main institutions

responsible for most policy-making processes on REDD+ implementation. However, the absence of adequate coordination among these regulating bodies is an important obstacle that seems to be affecting the REDD+ process in the country. As a result of minimal coordination between the relevant authorities, little has been done to promote improvement and investment in REDD+ in Cameroon. As one government official explained:

"Appropriate and adequate coordination between MINFOF and MINEPDED is absent in the country and in my view

TABLE 4 Allocation of Cameroon's forests

Domain	Category	Area (ha)	% of total
	Forest licenses	6,063,457	30.9
	Forest management units	7,066,647	36.0
Permanent Forest	Communal forests	413,622.3	2.1
Domain	Forest reserves	1,541,111	7.9
	Protected areas	3,785,653	19.3
Non-Permanent Forest	Community forests	380,764.5	1.9
Domain	Sale by standing volume	379,745.2	1.9
	Total Forest	19,631,000	100

Source: WRI, GFW, MINFOF, 2007; Alemagi et al. (2014).

there is some rivalry between these institutions to the extent that whenever there are relevant meetings on REDD+ in the country one can see and notice this competition between these two institutions and this is not progressive at all if REDD+ is to be advanced in the country as a climate change mitigation effort".

Poor governance: Cameroon's porous borders, institutional inertia, corruption, mismanagement, and weak enforcement of regulations especially in its forestry sector have led to poor resource governance. This could be one of the reasons why the REDD+ technical Secretariat is not functional at the moment. For most people, working in an environment where corruption, mismanagement, and regulations are not adequately enforced has proved crippling. In addition, such a situation promotes unproductive investments which leads to the overall decline in the quality of services in the REDD+ arena of the country. This situation has prevented most interested producers and investors in the private sector from investing in REDD+ in Cameroon. Indeed, we argue that it is partly because of this situation that Wildlife Works Carbon (one of the world's largest REDD+ project conceptualization and management companies) was unable in 2012 to obtain a licence to operate a carbon concession in the Ngoyla-Mintom forest block located in the East Region of Cameroon. A leader of a civil society organisation in a forest-dependent community in the country elucidated the severity of this problem during an interview:

"Cameroon has a serious problem with forest governance. There is weak enforcement of relevant laws and this is affecting REDD+ implementation in the country including private sector investment in the REDD+ mechanism which is very important because without investment especially from the private sector I do not see how REDD+ will succeed in Cameroon".

Opportunities

Data availability: In the previous section of this paper, we argue that there is a fundamental issue with GIS and remote sensing data in Cameroon. One possible means of addressing this problem is through the free online databases. As Minang *et al.* (2008) posit, satellite imagery on forest cover and other land use can be accessed freely on the internet from databases.

They note that "relevant example includes online access to Multi-Spectral Scanner (MSS), Landsat Thematic Mapper (TM) and Enhanced Thematic Mapper (ETM) satellite imagery and digital elevation models, at the Global Observation of Forest Cover (GOFC) Project website". These sites provide most of the relevant information for establishing carbon baselines and MRV which is fundamental for REDD+ implementation.

Provision of other non-carbon benefits: Implementing REDD+ at the institutional level results not only in carbon sequestration alone but in the provision of other non-carbon benefits. These benefits include biodiversity conservation, protection of services that forest ecosystems provide to humanity like water and erosion control, income generation by forest-dependent communities, preservation of forests for cultural and spiritual benefits, participation of relevant actors in the forest management decision making-process, and the promotion of secured land tenure.

Threats

Conflicts: Armed conflicts threaten institutions' effective and efficient functioning at the national and sub-national levels in Cameroon. As Collier (2007) opines, armed conflicts threaten a country's socioeconomic and ecological development, especially those in the least developed world. For low-income countries like Cameroon, these conflicts become a trap that impairs growth in all forms. The armed conflict in the North-West and Southwest Regions of the country has affected the development and implementation of REDD+ initiatives like the development of REDD+ pilot projects by institutions in this part of the country. As one senior official from a donor organisation or institution in Yaoundé noted:

"Armed conflicts remain a major threat to institutions responsible for implementing REDD+ in Cameroon. A REDD+ feasibility study was to be conducted in Mundemba, Toko, Nguti and Bangem municipalities in the South-West Region of the country but we had to abandon this study because of the armed conflicts in this Region of Cameroon".

Threats from the logging companies: While forests of the Congo Basin in Cameroon are vast and high-value tropical trees are in abundance, many logging interests or companies

in the country are currently operating unsustainably. Moreover, while the forests are mostly publicly held, these logging interests tend to be foreign-owned, operating on large concessions. Indeed, this concession-based forestry remains the dominant business paradigm within the forestry sector in the country (Karsenty 2007) despite REDD+ initiatives and pilot projects being implemented in some parts of the country. This issue was further espoused by the head of a civil society in the East Region of the country who stated:

"My NGO is one of those institutions responsible for supporting the implementation of REDD+ pilot projects in this Region of Cameroon. However, despite all our efforts to advance REDD+, we still have threats from large-scale logging companies that are logging indiscriminately and unsustainably in some parts of the country where REDD+ pilot projects are being implemented".

MEASURES FOR A PATH FORWARD

In this section of the paper, we identify pathways for overcoming weaknesses associated with institutions responsible for REDD+ implementation in Cameroon and threats that these institutions faced as a result of REDD+ implementation. We argue that capacity building in MRV, clarification of rights issues, proper institutional coordination, promotion of accountability and transparency in forest management, and peace building are all keys to addressing these weaknesses and threats.

Capacity building in MRV

Capacity building, especially of relevant personnel in MRV, is insufficient in Cameroon. Indeed, engaging in project-level capacity building in MRV is urgent if successful REDD+ implementation is to be achieved in Cameroon. Moreover, as some authors suggest, such projects should be actively geared towards training in effective and efficient carbon measurement techniques and MRV methodologies as prescribed in relevant literature such as the Good Practice Guidance Report (IPCC 2003, Minang *et al.* 2008).

Furthermore, the country needs proper capacity building of national and local forest managers in MRV in the country. This capacity building could be provided by the university system and research institutions who should provide relevant short and long-term courses on MRV and forest governance in general. Some other key capacity needs are the following (Hagen 2014):

- Training to manage and collaborate on technical aspects of sustainable forest management for REDD+ implementation.
- Development of governance capacities for MRV to ensure compliance with forest access and use rules for enhanced carbon sequestration.
- Development of low- cost tools and expertise for MRV.
- Training and support to effectively analyse and address gender and other social diversity issues relating to MRV.

Clarification of rights issues

In the current forestry law reform, the government must reformulate its national forest policy with an explicit emphasis on the clarification of tenure rights within the context of REDD+ implementation in Cameroon. As Minang *et al.* (2008) recommend, such reforms should address carbon right within forest ecosystems more explicitly. On another note, the reform should also promote reforestation practices within forest ecosystems in the country as a REDD+ strategy. This will further align the REDD+ initiatives implementation with international standards, provide a space for advancing REDD+, and reduce the inevitable conflict that could emanate from REDD+ implementation.

Proper institutional coordination

Relevant government institutions should work collaboratively to advance and enhance REDD+ implementation in the country. The importance of collaborative management cannot be overemphasized. As Blumenthal and Jannink (2000:1) stated "collaboration among multiple stakeholders can be crucial to the success of natural and forest resource management" including REDD+. The reason is that collaboration could result in a better, more effective and efficient management of forest resources for carbon sequestration and the provision of other non-carbon benefits that the forest provides to humanity. It is therefore imperative that all the major actors and institutions working to advance REDD+ in Cameroon collaborate from all perspectives to seek strategies towards promoting this fundamental sustainable forest management mechanism.

Promotion of good governance in forest resource management

While there is a need for robust institutional arrangements at the local level to promote good governance especially in the forestry sector, we strongly encourage the application of rigor and representative democracy in managing forests and other natural resources. As Oyono (2004) explains, thanks to protests by residents in Ebolowa and Mbang located in the South and East Regions of Cameroon respectively, corrupt members of committees responsible for managing forest resources were dismissed. Additionally, as a strategy to deter future offenders, defaulters should not only be dismissed but legal proceedings must be taken against them.

Peace building

Building the path to peace in Cameroon's North-West and South-West Region is crucial. Indeed, all the different actors must be brought together to look for a lasting solution to the armed conflict in this part of the country. Furthermore, this paper presses the need for a deeper understanding of the root cause of the armed conflict and looking for a lasting solution as building peace is essential for sustainable natural resource management and REDD+ implementation in Cameroon.

CONCLUDING COMMENTS

This paper has presented the role played by different institutions in advancing REDD+ implementation in Cameroon as well as a SWOT analysis of these institutions. The results indicate that while some strengths could be associated with these institutions and opportunities emanating from REDD+ implementation, these institutions still face a series of threats and weaknesses that impede the implementation of REDD+. Thus, specific recommendations for overcoming these weaknesses and threats are identified including capacity building in MRV, clarification of rights issues, proper institutional coordination; promotion of accountability and transparency in forest management, and peace building. Implementation of these recommendations we argue is fundamental to successful REDD+ implementation in the country.

ACKNOWLEDGEMENTS

This work was supported through the Climate Research for Development (CR4D-19-04) Postdoctoral Fellowship [CR4D] implemented by the African Academy of Sciences (A.A.S.) in partnership with the United Kingdom's Department for International Development (DfID) Weather and Climate Information Services for Africa (WISER) programme and the African Climate Policy Center (ACPC) of the United Nations Economic Commission for Africa (UNECA). Statements made and views expressed in this work are solely the responsibility of the author(s). Finally, we all wish to express our most profound gratitude to all the different REDD+ actors in Cameroon who accepted to spare their valuable time to take part in the interviews.

REFERENCES

- AFRICAN DEVELOPMENT BANK GROUP. 2008. Cameroon: evaluation of bank group assistance to the agriculture and rural development sector 1996–2004. OPEV, African Development Bank, Abidjan, Ivory Coast.
- ANGELSON, A., BROCKHAUS, M., KANNINEN, M., SILLS, E., SUNDERLIN, W.D., and WERTZ-KANOUNNKOFF, S. 2009. Realizing REDD+: National strategy and policy options. Centre for International Forestry Research, Bogor, Indonesia, 2009.
- ALEMAGI, D., MINANG, P., FEUDJIO, M., and DUGU-MA, L. 2014. REDD+ readiness process in Cameroon: An analysis of multi-stakeholder perspectives. *Climate Policy* **14**: 709–733.
- ALEMAGI, D., HAJJAR, R., DAVID, S., and KOZAK, R.A. 2012. Benefits and barriers to certification of community-based forest operations in Cameroon: An exploratory assessment. *Small Scale Forestry* 11: 417–433.
- ALEMAGI, D., and KOZAK, R.A. 2010. Illegal logging in Cameroon: Causes and the path forward. *Forest Policy and Economics* **12**: 554–561.

- AMMENBERG, J. 2003. Do standardized environmental management systems lead to reduce environmental impacts? Doctoral thesis. Institute of Technology, Linkoping University, Sweden.
- BENARD, F., and MINANG, P.A. 2019. Community forestry and REDD+ in Cameroon: what future? *Ecology and Society* **24**: 1–15.
- BLUMENTHAL, D., and JANNINK, J.L. 2000 A classification of collaborative management methods. *Ecology and Society* **4**: 13–20.
- CHIA, E.L., TIANI, A.M., and SONWA, D.J. 2013. The State of research on effectiveness and equity (2Es) in forests management regimes in Cameroon and its relevance for REDD+. *Environment and Natural Resources Research* 3: 92–105.
- CHIA, E.L., HUBERT, D., CARUDENUTO, S., and SENE, O. 2019. Evolution in the enabling factors for transformational change in forestry and land use policy processes: The case of REDD+ in Cameroon. *International Forestry Review* **21**: 62–72.
- CHOMITZ, K.M., BUYS, P., DELUCA, G., THOMAS, T.S., and WEETZ-KANOUNIKOFF, S. 2006. At Loggerheads? Agricultural expansion, poverty reduction, and the environment in the tropics. The World Bank, Washington, D.C, U.S.A.
- CRESWELL, J.W. 2008. Qualitative inquiry and research design: choosing among five traditions. Sage Publications, Thousand Oaks, California, U.S.A.
- COLLIER, P. 2007. The Bottom Billion: Why the poorest countries are failing and what can be done about it. Oxford University Press, U.K.
- DKAMELA, G.P. 2011. The context of REDD+ in Cameroon:Drivers, agents and institutions (Occasional Paper No. 57). Centre for International Forestry Research, Bogor, Indonesia.
- FCPF (Forest Carbon Partnership Facility). 2012. REED readiness preparation proposal (R-PP) for Cameroon. Forest Carbon Partnership Facility, World Bank, Washington, DC, U.S.A.
- HAGEN, R. 2014. Lessons learned from community forestry and their relevance for REDD+. Report prepared for USAID. Forest Carbon, Markets and Communities (FCMC) Program, Arlington, VA. Available at www.fcmcglobal.org.
- IPCC. 2003. Inter-governmental Panel for Climate Change: Good practice guidance for land use, land-use change and forestry. Institute for Global Environmental Strategies (IGES), Kanagawa.
- IUNC. 2011. Identification et essai de typologie des initiatives REDD+ au Cameroun. Yaoundé: International Union for the Conservation of Nature, Gland, Switzerland.
- KARSENTY, A. 2007. Overview of industrial forest concessions and concession-based industry in Central and West Africa and considerations of alternatives. Rights and Resources Initiative Group, Washington DC, U.S.A.
- KIMOO, B. 2007. Speech of the United Nations Secretary-General Ban Ki-moon at the opening of the G8 meeting in Heiligendamm. Germany.

- KVALE, S. 1996. Interviews: an introduction to qualitative research interviewing. Sage Publications, Thousand Oaks, California, U.S.A.
- MERTENS, B., FORNI, E., and LAMIN, E.F. 2001. Prediction of the impact of logging activities on forest cover: A case study in the East province of Cameroon. *Journal of Environmental Management* **62**: 21–36.
- MINANG, P.A., McCALL, M.K., STUTSCH, M.M., and VERPLANKE, J.J. 2008. A data support infrastructure for Clean Development Mechanism forestry implementation: an inventory perspective from Cameroon. *Mitigation and Adaptation Strategies for Global Change* 13: 157–178.
- MINEPDED. 2018. Cameroon National REDD+ Strategy. MINEPDED. Yaoundé. 103p.
- NGENDAKUMANA, S., FEUDJIO, M., SPEELMAN, S., MINANG, P.A., MAMIREMBE, S., and VAN DAMME, P. 2017. Implementing REDD+: learning from forest conservation policy and social safeguards frameworks in Cameroon. *International Forestry Review* 19: 209–223.
- NGUIFFO, S., KENFACK, E.T., and MBALLA, N. 2009. The influence of historical and contemporary land laws on indigenous peoples' land rights in Cameroon. Rights and Resources Initiative, Washington, DC, U.S.A.
- OYONO, P.R. 2004. The social and organizational roots of ecological uncertainties in Cameroon's forest management decentralization model. European. Journal of Development. *Resources* **16**: 174–191.
- PALMER, C., and ENGEL S. 2009. Avoided Deforestation: Prospects for Mitigating Climate Change. Routledge, London/New York, U.S.A.
- PRIME MINISTER OF THE REPUBLIC OF CAMEROON, 2012. Decree no. 103/CAB/PM of 13 July 2012 on

- the creation of REDD+ steering committee. Yaoundé, Cameroon.
- REDD+ COUNTRIES DATABASE. 2012. Cameroon: An overview from the REDD countries database. Retrieved from www.theREDDdesk.org/countries/cameroon.
- REPUBLIC OF CAMEROON. 2018. Stratégie Nationale REDD+ du Cameroun. Ministère de L'environnement, de la Protection de la Nature, et du Développement Durable. Yaoundé, Cameroun.
- SAMA, N.J., and TAWAH, E.B. 2009. Origin and background of REDD+ in Cameroon. In: Costenbader., J (Ed.), *Legal frameworks for REDD*. Design and implementation at the national Level (139–150). International Union for the Conservation of Nature, Gland, Switzerland.
- SHJIO, J., HEROLD, M., SUNDERLIN, W.D, and VER-CHOT, L.V. 2013. REDDC readiness: early insights on monitoring, reporting and verification systems of project developers. Environmental Research. *Letters* 8: 1–15.
- SOMORIN, O.A., PEACH BROWN, C.H., VISSEREN-HAMAKERS, I.J., SONWA, D.J., ARTS, B., and NKEM, J. 2012. The Congo Basin forests in a changing climate: Policy discourses on adaptation and mitigation (REDD+). *Global Environmental Change* **22**: 288–298.
- SOMORIN, A.S., VISSEREN-HAMAKERS, I.J., ARTS, B., SONWA, D.J., and TIANI, A. 2013. REDD+ policy strategy in Cameroon: Actors, institutions and governance. *Environmental Science and Policy* **35**: 87–97.
- UNFCCC. 2008. United Nations Framework Convention on Climate Change. Retrieved from http://unfccc.int/2860.php
- WRI, GFW, & MINFOF, 2007. Geographic Information Systems (G.I.S.) data. Yaoundé: The World Resource Institute, Global Forest Watch, and the Ministry of Forests and Fauna, Yaoundé, Cameroon.