



Adaptation and mitigation policies in Cameroon

Pathways of synergy

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Photo by Joachim Nguiebouri. A Yassa tribesman in the Campo-Ma'an Lolabé 3 forest, Southern Region, Cameroon.

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Abbreviations

ADAM project	Adaptation And Mitigation strategies project
AFD	French Development Agency / <i>Agence française de développement</i>
AfDB	African Development Bank
AMFN	African Model Forest Network
CCAP	Climate Change Adaptation Programme / <i>Programme d'adaptation au changement climatique</i>
CCPM	<i>Cercle de concertation des partenaires du MINFOF et du MINEP</i> / Consultation Circle of Partners of MINFOF/MINEP
CDM	Clean Development Mechanism
CED	Centre for Environment and Development
CIFOR	Center for International Forestry Research
CIRAD	Agricultural Research for Development
CMP	Multipartner Committee
CMSE	Ecological Monitoring Unit / <i>Cellule du monitoring et du suivi écologique</i>
CNI	Initial National Communication
CO ₂	carbon dioxide
COMIFAC	Central African Forest Commission
CoP	Conference of the Parties to the UNFCCC
DSCE	Growth and Employment Strategy Document / <i>Document de stratégie de croissance et de l'emploi</i>
ECCAS	Economic Community of Central African States
ECAM	<i>Enquête camerounaise auprès des menages</i> (Cameroon household survey)
ESA	European Space Agency
FAO	Food and Agriculture Organization of the United Nations
FCPF	Forest Carbon Partnership Facility
FD	Forestry Department
FESP	Cameroon Forest and Environment Sector Programme
FLEGT	Forest Law Enforcement, Governance and Trade
FMP	Forest Management Plan
FMUs	Forest management units
FNEDD	National Environment and Sustainable Development Fund
FPIC	free, prior and informed consent
FPP	Forest Peoples Programme
FRSP / PSRF	Forest Revenue Securement Programme / <i>Programme de sécurisation des recettes forestières</i>
FSDF	Special Fund for Forestry Development / <i>Fonds spécial de développement forestier</i>
GAF-AG	Consulting firm providing geo-information based in Munich, Germany
GCS-REDD+	Global Comparative Study on REDD+
GDP	gross domestic product
GEF	Global Environment Facility
GFI	Governance Forest Initiative
GHG	greenhouse gas
GIZ	<i>Deutsche Gesellschaft für Internationale Zusammenarbeit</i> (German development bank)
HYSACAM	Hygiene and Sanitation Company of Cameroon / <i>Hygiène et salubrité du Cameroun</i>
ICRAF	World Agroforestry Centre
ICV	<i>Instituto Centro de Vida</i>

IFAD	International Fund for Agricultural Development
INC	Initial National Communication on climate change
IPCC	Intergovernmental Panel on Climate Change
IRAD	Institute of Agronomic Research for Development
IRD	International Relief and Development
ITTO	International Tropical Timber Organization
IUCN	International Union for Conservation of Nature
JICA	Japan International Cooperation Agency
KfW	<i>Kreditanstalt für Wiederaufbau</i> (German development bank)
LDC	least developed country
MDG	Millennium Development Goals
MEA	Millennium Ecosystem Assessment
MINADER	Ministry of Agriculture and Rural Development
MINAS	Ministry of Social Affairs
MINATD	Ministry of Territorial Administration and Decentralisation
MINDAF	Ministry of State Property and Land Tenure
MINEE	Ministry of Energy and Water Resources
MINEF	(former) Ministry of Environment and Forests (replaced by MINFOF)
MINEP	Ministry of Environment and Protection of Nature
MINEPAT	Ministry of the Economy, Planning and Regional Development
MINEPDED	Ministry of the Environment, Nature Protection and Sustainable Development
MINEPIA	Ministry of Livestock, Fisheries and Animal Industries
MINFI	Ministry of Finance
MINFOF	Ministry of Forests and Wildlife
MINRESI	Ministry of Scientific Research and Innovation
MINTRANSPORT	Ministry of Transport
MRV	Monitoring, Reporting and Verification
NAPA	National Adaptation Programme of Action
NBSAP	National Biodiversity Strategies and Action Plans
NEMP	National Environmental Management Programme
NGO	non-governmental organization
NIS	National Institute of Statistics
NPFD	Non-Permanent Forest Domain
NTFP	non-timber forest products
OECD	Organisation for Economic Co-operation and Development
OAB	<i>Organisation Africaine du Bois</i> / African Timber Organization
ONACC	National Observatory on Climate Change
PACEBCo	Congo Basin Ecosystems Conservation Support Programme / <i>Programme d'appui à la conservation des écosystèmes du Bassin du Congo</i>
PCI	Principles, Criteria and Indicators
PFD	Permanent Forest Domain
REDD+	Reducing Emissions from Deforestation and Forest Degradation and enhancement of forest carbon stocks
RFA	<i>Redevance forestière Annuelle</i> / Annual Forestry Fee
R-PIN	Readiness Plan Idea Note
R-PP	Readiness Preparation Proposal
RWE	Roundwood equivalent
SDSR	Rural Sector Development Strategy document
SMIG	guaranteed minimum interprofessional wage / <i>salaire minimum interprofessionnel garanti</i>

UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
VPA	Voluntary Partnership Agreement
WCS	Wildlife Conservation Society
WRI	World Resources Institute
WWF	World Wide Fund for Nature

Foreword

This paper has been produced as part of the COBAM project “Climate change and forests in the Congo Basin: Synergies between adaptation and mitigation,” launched by the Center for International Forestry Research (CIFOR).

Climates change and, in so doing, force international and national political agendas to be increasingly concerned with fighting the changes and their effects on local populations. Policy decision-makers need information to prepare policies and projects on climate change adaptation and the reduction of forest carbon emissions that have a balanced impact, contribute to poverty alleviation, improve ecosystem services (other than carbon) and protect livelihoods and local rights. These form part of a procedure used in this study to analyze synergies between mitigation and adaptation policies in the context of Cameroon.

We wish to thank our collaborators and partners for their contributions. Our gratitude goes first to the team of Module 1 of the CIFOR GCS-REDD+ project, whose methods were borrowed and adapted in the section on mitigation¹. We are also grateful for the proofreading done by Bruno Locatelli, Claude Garcia, Anita Poissel, Symphorien Ongolo and Jean Claude Njomkap. Our thanks go to Youssoufa Bele, Chrislain Eric Kenfack and Amougou Galièche Noëlle for their editing work. And thanks are also due to Guy Patrice Dkamela, whose opinion contributed to formulating the approach on synergy construction. A heartfelt thank you goes to Charlotte Pavageau, Flore Ndong and the whole COBAM project team for their assistance.

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¹ Brockhaus M, Di Gregorio, M and Wertz-Kanounnikoff, S. 2012. *Guide for country profiles: Global Comparative Study on REDD (GCS-REDD) component 1 on national REDD+ policies and processes* Bogor, Indonesia: CIFOR.

Abstract

The purpose of this study is to identify new synergistic pathways between climate change mitigation and adaptation policies in Cameroon using an approach based on a literature review of the political processes that led to the introduction of the two strategies. The common feature of the two political processes is the absence of strategy in Cameroon. The country is finding it difficult to assimilate and coordinate these processes at the national level. More attention is being given to mitigation than to adaptation. In any case, it is difficult to formulate any political options without complete studies on the responses to the drivers of deforestation and forest degradation and on the vulnerability of the forest populations and their capacity to absorb climate shocks.

Furthermore, the context of climate change governance in Cameroon is marked by constraints mainly connected to the shortage of funding, the lack of information on vulnerability and the social acceptability of present-day conservation projects.

Synergy is a major challenge in the Cameroonian context where the government prioritizes development and is striving to turn the country into an emerging (middle-income) economy by the year 2035. Many programs and projects that structure efforts to fulfil the development goals could provide opportunities to lessen the climate change vulnerability of the forest population if this issue were included as an integral part of these projects.

To achieve this goal, and pending receipt of information on the results of research based on the natural and social sciences, politicians should impose conditions that require climate constraints to be included in sectoral policies at the design stage, especially for areas that are prone to the effects of climate change.

Keywords: *adaptation, mitigation, forest policies, carbon, greenhouse gas, synergies, forests, Cameroon.*

1 Introduction

The reality of climate change is widely acknowledged. It is the consequence of increasing temperatures caused by atmospheric greenhouse gases (GHGs) altering the functioning of ecosystems. These effects are difficult to assess because of natural adaptation and non-climatic factors (IPCC 2007a). According to the IPCC report (2007b), 70% of the increase in GHG emissions observed between 1970 and 2004 was caused by human activities. The report also suggests that a continuation of present policies to mitigate climate change would probably lead GHG emissions to rise further in the coming decades (IPCC 2007b).

To respond to climate change, the 1992 United Nations Framework Convention on Climate Change (UNFCCC) proposed two strategies: mitigation and adaptation. These strategies must be regarded concomitantly in order to fulfil the objectives of the 1992 Rio Convention and the developmental needs set out in, e.g. the Millennium Development Goals (MDG) and national programs and plans.

Literature on climate change policy shows that climate change mitigation has been studied far more than climate change adaptation (ADAM 2008; Bele et al. 2011). Hence discussion at both international and national levels is now focusing increasingly on adaptation. More is being written about the synergies between mitigation and adaptation (Ravindranath 2007; Sendashonga 2009; Locatelli et al. 2011). Thus, every day increases our knowledge of the options we have in implementing measures to create synergy in addressing climate change, without jeopardizing other dimensions of sustainable development (Parry et al. 2007).

The need to launch mitigation and adaptation initiatives in forest areas to fight climate change has been recognized (AfDB et al. n.d.). Synergy between mitigation and adaptation policies is considered essential (IPCC 2007a), but ensuring its effectiveness is still a challenge. The importance of the forest in this process has been accepted and given due attention, without, however, forgetting the important role of forests in the national socioeconomic and political development of the African forest countries.

The purpose of this study is to identify avenues and construct approaches to establishing and analyzing synergies between climate change mitigation and adaptation policies as applied to forestlands, and also to provide answers to the following questions: What are the opportunities and obstacles to including climate-related issues in current environmental and forestry policies? Would it be possible to develop synergistic policies that combine mitigation and adaptation processes in Cameroon? What would be the right approach? Considering the context of climate change mitigation and adaptation policies, what are the risks and opportunities of a synergy-based approach to climate change mitigation and adaptation processes in Cameroon?

The project draws on the postulate that synergy between mitigation and adaptation policy processes could provide a sound basis for preparing appropriate national policies for coping with climate change in central African countries, the goal being to increase the effectiveness, efficiency and equity of interventions that combine adaptation and mitigation (Angelsen et al. 2008), in this case, in Cameroon.

1.1 The methodology framework

Six concepts are needed to explain this study, namely, adaptation, mitigation, vulnerability, resilience, adaptive capacity and development. Mitigation focuses on the causes of climate change and targets “the stabilization of greenhouse gas concentrations in the atmosphere at a level that could prevent dangerous anthropogenic interference with the climate system” (article 2 of the UNFCCC). The relationship between forests and climate change mitigation has been recognized. The living forest is a sink that absorbs carbon dioxide (CO₂), a greenhouse gas (GHG), through photosynthesis. In so doing, it contributes to purifying the atmosphere and fighting global warming (Bonan 2008). Conversely, deforestation contributes to the release of CO₂ and to loss of opportunity to sequester it. At the worldwide level, deforestation apparently contributes close to 17% of global GHG emissions, while forest conservation helps reduce the effects of climate change. Since 2005, the international climate agenda has been largely dominated by the question of including forests in a post-Kyoto agreement on fighting climate change using the mechanism on Reducing Emissions from Deforestation and Forest Degradation (REDD+), sustainable management, afforestation and reforestation. REDD+, thus, is aimed at policies and measures to reduce emissions and to increase sequestration of GHGs with monitoring of the effects of these policies. This actually amounts to financial incentives for the conservation and sustainable management of forest ecosystems.

Responses to climate change based on adaptation must be considered in parallel with mitigation (see Figure 1). According to the Intergovernmental Panel on Climate Change (IPCC), an intergovernmental group of experts, adaptation is “an adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities” (IPCC 2001). The Framework Convention recommends three approaches: evaluation of vulnerability, capacity building/development and implementation of adaptive measures. Adaptation, whether autonomous or the result of political planning, anticipatory or reactive, is a continuous process (FAO 2005). In the forest environment, adaptation may be used to reduce the harmful effects of climate change by maintaining the ecosystem’s functions or, conversely, the forests may provide the goods and services needed for forest communities to adapt to the effects of climate change (Locatelli et al. 2010). In the first case, Locatelli speaks of “adaptation for forests” and, in the second, “forests for adaptation” (Locatelli 2011). Recent experience shows that adaptation in forestlands and in forestry is mainly reactive and autonomous (Seppälä et al. 2009). Furthermore, much thought has been given to the relations between development and adaptation (Tanner and Mitchell 2008; Cannon and Müller-Mahn 2010). Actually, adaptation requires a combination of reactions that depend on the level of vulnerability and the capacity to adapt to shocks.

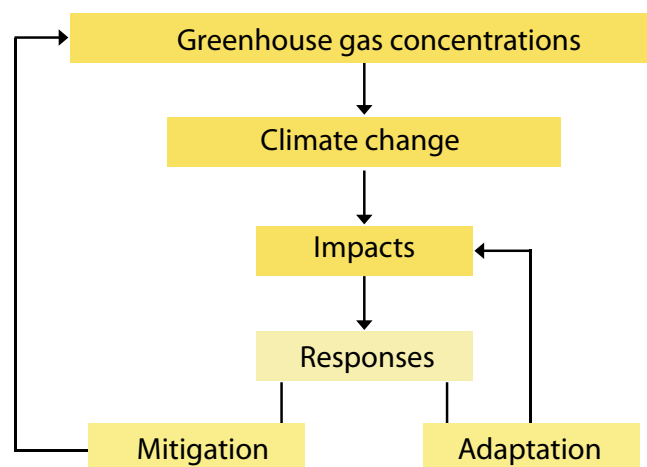


Figure 1. Links between adaptation and mitigation.

(Source: Locatelli 2011)

The vulnerability concept has many facets, and since there is no consensus on its definition (Füssel 2009), the IPCC definition is often used. The IPCC experts group defines vulnerability as “the degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes.” The form of vulnerability can change from one context to another. It depends on the character, magnitude and rate of climate change, variations to which the system is exposed, as well as the system’s sensitivity and adaptive capacity. Hence, high exposure, high sensitivity and weak adaptive capacity lead to high vulnerability (McCarthy et al. 2001). And the inability of a system to overcome crises or shocks can be explained by socioeconomic factors just as well as political factors (Kelly and Adger 1999; Adger et al. 2009). In a forest environment, vulnerability can affect natural and human systems simultaneously, and can reduce the capacity of ecosystems to generate the goods and services needed for human adaptation (Kalame 2011).

The *Resilience Alliance* presents resilience as the capacity to absorb turbulence, to change and to reorganize itself without changing identity, and without changing the basic structure or modes of functioning. In the beginning, the resilience concept was used in relation to disasters and the environment but now it has been expanded to embrace the broader issue of development (Berkes et al. 2003), which is closely linked to adaptive capacity.

People and systems are known to have an adaptive capacity, which involves individual and collective measures designed to lessen risk, and to modify practices, processes and the structure of systems. Adaptability determines the level of a system’s vulnerability. The greater the adaptive capacity, the lesser the vulnerability, and vice versa. But adaptive capacity is still difficult to measure. It is connected to general forms of sustainable development, such as political stability, economic well-being, human and social capital and, in certain ways, climate, e.g. the existence of systems to prevent natural catastrophes and mitigate their effects (AfDB et al. n.d.).

1.1.1 Climate change and development in a forest context

Accepting the postulate that the production of GHG originates from human activities is tantamount to admitting that shocks induced by climate change are socially constructed phenomena. In other words, the vulnerability of populations depends on socioeconomic and political conditions. This gives an idea of the responsibility of the relationship between political and the socioeconomic actors for increasing or decreasing the vulnerability of ecosystems and, more importantly, the people who live there.

Poverty ranks high among the causes of vulnerability in developing countries. The fight to eliminate poverty is one of the major projects of the 21st century. In the United Nations Millennium Declaration, 189 countries resolved to halve extreme poverty by the year 2015. Climate change stands out as an obstacle to poverty reduction and now is a challenge to development (AfDB et al. n.d.). According to an IPCC report (2001), developing countries are the most vulnerable to the harmful effects of climate change because their widespread poverty and weak governance prevent them from acquiring the means required to respond effectively to climate change (IPCC 2007a). Hence, climate change affects the living conditions and lifestyles of both urban and forest populations (IPCC 2007a).

Cannon and Müller-Mahn (2010) argue that there has been a shift in the discourse on development, which makes it challenging to apply norms especially from the pro-poor and grass roots perspective. It is difficult to speak about climate change adaptation and mitigation in developing countries outside of the context of these countries’ development. There are still many questions about the relationship between the three concepts (Tanner and Mitchel 2008). This being the case, how can we speak about development in forestlands where it cannot necessarily be expressed in economic or political terms and where it includes many other facets that are cultural, historical, ancestral, etc.? It is important to think about development in broader terms that include local realities. In forestlands, this means considering the relationship of populations to forest resources and the ecosystem services rendered by the forests (van Aalst et al. 2008).

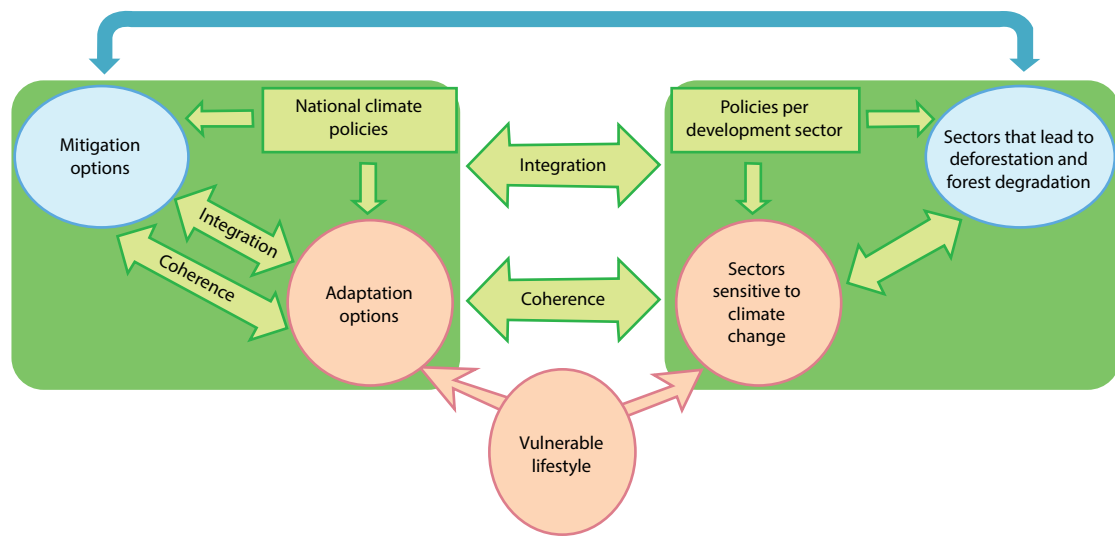


Figure 2. Climate policies and development sectors in a forest context.

One major concern stemming from this debate is whether adaptation is the way development must respond to climate change? In Africa, fighting poverty is a form of adaptation that depends on improvements in sociopolitical conditions and on healthy economic management (AfDB et al. n.d.) in both the forest sector and other sectors (see Figure 2). The fact that climate change not only affects the objects but also the subjects of development practices lends meaning to these concerns.

The challenges of development in terms of climate change are aggravated in the forest context of developing countries where, like in Cameroon, deforestation is closely connected to the fight against poverty and to development efforts. The reason for increased forest operations primarily lies in the country's need to keep the financial promises they made to the international financial institutions (World Bank and International Monetary Fund) at the end of the 1980s as part of the structural adjustment program (Martin 1991; George 1992; Shandra et al. 2010). The same applies to slash-and-burn agriculture, which the local people feel is the first and even the main answer to the problem of food security.

1.1.2 Synergy and socioeconomic development

Creating synergy means more than merely implementing climate change mitigation and adaptation policies simultaneously. Synergy is based on the supposition that several factors combined have an effect that is greater than the sum of their parts, i.e. the expected effects had they been considered individually (Morin 1990; IPCC 2007). With regard to climate change, synergy concerns the combined effect of emission-reducing measures and harmful impacts (Klein 2007). According to this definition, synergy should translate into greater efficiency (less effort, time and resources) or value added to the results. Producing synergy between mitigation policies and adaptation policies depends on the coordination of actions and on the sharing of resources at both the national and the local levels (Challinor et al. 2007; Howden et al. 2007). To successfully create synergy between climate mitigation policies and climate adaptation policies requires a context of development in which there is coherence and integration between the two policies (see Figure 2).

In some cases, synergy cannot be developed among all the components of a policy because of insufficient material resources, cognitive biases,

Table 1. Differences between mitigation and adaptation.

Mitigation (Attacks the causes of climate change through reduction of GHG)		Adaptation (Attacks the consequences of climate change to reduce vulnerability)	
Energy, transport, Industrial	←	Sectors	→
Global	←	Spatial Scale	→
Long-term	←	Time scale	→
Less political legitimacy	←	Urgency of legitimacy	→
			Plus political legitimacy

Source: Swart (2007).

structural/conjunctural reasons (Moser 2012) or differences between adaptation and mitigation (see Table 1), although the latter two are connected (see Figure 1). In this situation, the most rational compromises need to be considered. Synergy is only significant in a development context if it can serve as a lever for effective, efficient, equitable (Angelsen et al. 2008) and sustainable initiatives for poverty eradication and for growth.

These thoughts are relevant to the Cameroonian situation and fit in with the many development projects designed to help the country emerge by the year 2035. There is an abundance of documents on national strategies, programs and plans, e.g. the Growth and Employment Strategy Document (DSCE) (MINEPAT 2008), the Rural Sector Development Strategy Document (SDSR 2006) and the working document “Cameroon Vision 2035” (2009). These documents are often referred to in the texts that outline the political processes for fighting climate change in Cameroon, such as the Initial National Communication (CNI 2005), the Readiness Plan Idea Note (R-PIN 2008) and the Readiness Preparation Proposal (R-PP 2012). Yet drafting these papers as part of the climate change mitigation and adaptation synergy policies brings up the problem of the integration and coherence of processes and policies that simultaneously target development and the fight against climate change.

Political integration in a context of climate change has two components: (1) incorporation of the aims of climate change adaptation and mitigation into all stages of policy-making in other policy sectors, non-environmental as well as environmental; and (2) an attempt to aggregate expected consequences of climate change in an overall policy evaluation and a commitment to reduce contradictions

between climate policies and other policies (Underdal 1980; Van Bommel and Kuindersma 2008). In the context of the developing countries, emphasis should be placed on the sectoral policies whose impact on the forests is incontrovertible, e.g. agriculture, mining, infrastructure, planning and various land uses, which are presented as levers to national development. These policies contribute to the reduction of forest cover and to the increase in the GHG emissions, but they themselves are also vulnerable to climate change.

Political coherence implies, first of all, coordination and consistency, the aim being to avoid contradiction between the various policies envisaged for different sectors in a given context. For Jones (2002), political coherence is merely the systematic promotion of political actions for mutual reinforcement between governmental departments and agencies and can create synergies in activities keyed to achieving a defined objective. But it is still difficult to make an evaluation of coherence in relation to policies (May et al. 2006). One of the ways to achieve policy coherence is through coordination (Van Bommel and Kuindersma 2008). Hence, the brief is not only to consider the conflict between the sectoral policies but also to construct areas of “win-win” compromise (Whinship 2006).

There are, ultimately, two major challenges involved in creating synergy between climate change mitigation and adaptation policies in a context of development. The first is an *ex situ* pre-condition to the existence of synergy between policies to fight climate change and other sectoral development strategies. The second is an *in situ* reference to the challenges of synergy between mitigation and adaptation policies within national climate policies. We propose the approach described in the next section.

1.2 Approach to the construction of mitigation and adaptation synergy policies

The following approach is designed to identify elements that characterize synergy between mitigation and adaptation policies. It seeks to identify the specific characteristics of each of the two and elements of complementarity between these mechanisms for the purpose of informing decision-makers of the need for such policies and to outline an approach to constructing well-informed synergy policies. It paves the way for analyzing synergy within climate policies. Research on synergy is based on a multistep approach that demonstrates the importance of compromise to support opportunities for the success of these joint interventions. The analytical framework for the policies tested still needs to be better defined (see Figure 2).

The principle underlying an analysis of the synergies between mitigation and adaptation policies is, according to the UNFCCC, that these

policies constitute the two international strategies for fighting climate change. At the national level, these strategies are reflected in the mitigation and adaptation goals set out in related public policies that are implemented through documents such as the Initial National Communication (INC) on climate change, the national REDD+ strategy on mitigation and a national adaptation plan. For the local level, actions based on these options are planned and described in program and project documents.

The construction of the synergy policies can be broken down into three steps. The first step is an analysis of risks and opportunities between mitigation and adaptation at the national policy level and at the local action level. This analysis will bring out points of complementarity and opposition. Second, the coherence of the actions planned at the local level needs to be analyzed by consulting the program and project documents. Third, the results obtained need to be cross-checked with realities observed through ecobiological and social research (see Figure 3).

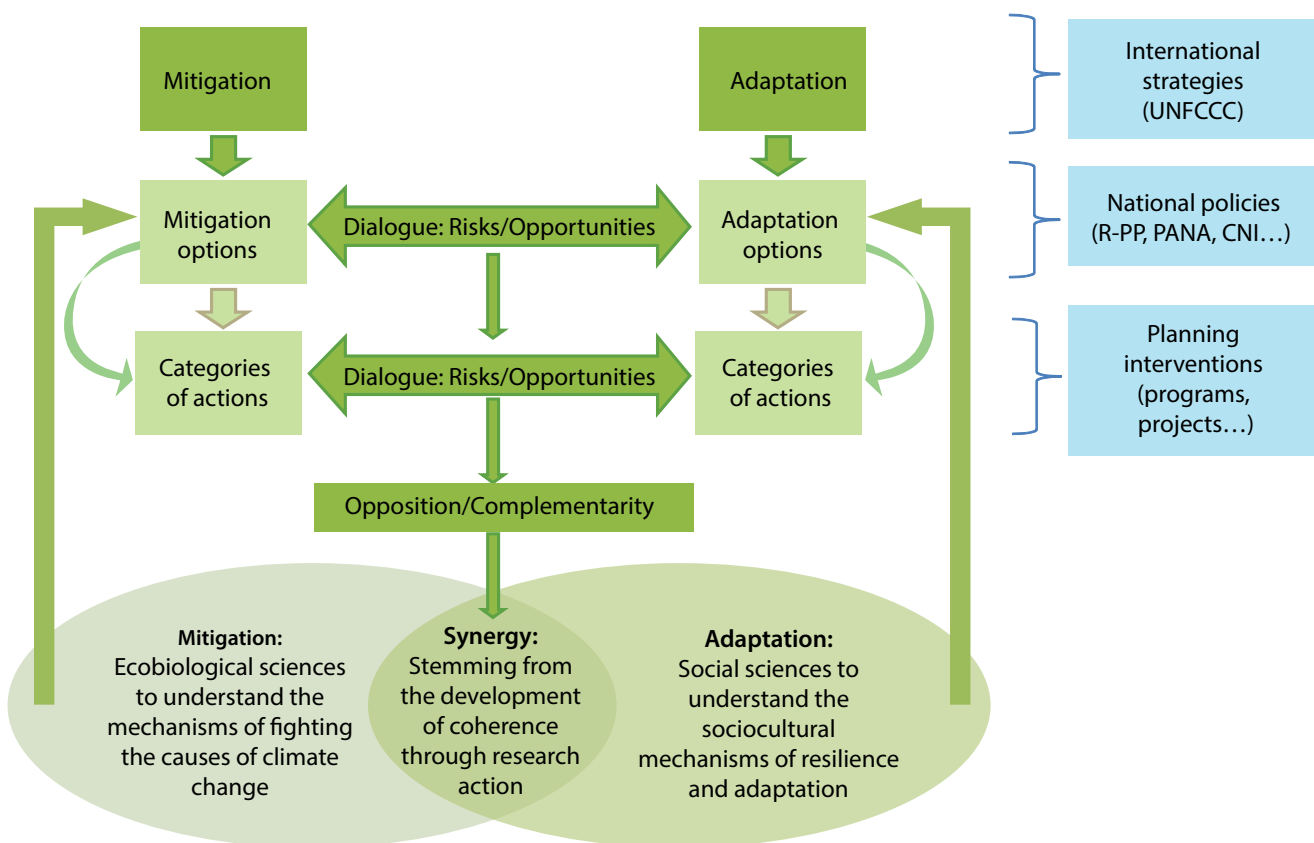


Figure 3. Approach to the construction of synergy as part of the policies to fight climate change.

Actually, the brief is to coordinate mitigation and adaptation actions (Nabuurs et al. 2007) and to go further. In the forest sector, mitigation actions can affect adaptation efforts and vice versa; therefore it is important to ensure that such effects do not have negative impacts on each other (Ravindranath 2007). Development projects produce much relevant information. Moreover, it is important to understand the response mechanisms of individual persons and of ecosystems to the causes and effects of climate change in order to identify mitigation solutions stemming from ecobiological research.

It is also important to understand the historical sociocultural mechanisms of adaptation and the resilience of selected populations to environmental changes. This involves fundamental research in the social sciences (Barnes et al. 2013). Last, reference should be made to the results of this research action when informing decision-makers at the national levels so that interventions at the local level can avoid areas of opposition and develop complementary mitigation and adaptation actions. By ensuring the coherence of these actions, this approach can pave the way for synergies that have been tested in research actions.

2

Cameroon, its forests and climate change

Cameroon is located in central Africa and covers a land area of 475,442 km² (MINEF 2005). The population of Cameroon rose from 10.5 million in 1985 to 19.4 million in 2005 (MINEPAT 2010), with an average annual growth rate of 2.7%. The urbanization rate has risen sharply and reached 48% but there are enormous geographic differences: 92.6% in the Littoral region and 71.9% in the Centre region, against 27.9% in the North region and 22.8% in the Extreme North region (MINEP 2005). The vast majority of poor people live in the rural areas, and the highest rural population rates are in the northern regions. The main resources of the Cameroonian economy are: diversified agriculture, oil, hydroelectricity, agro-industry and forestry. Other opportunities can be found in emerging sectors such as mining.

The role of forests in Cameroon has changed over time. In the past, the forests were used only to produce ecosystem goods and services, mainly for the daily lives of the forest populations. Now they are important to several sectors of socio-economic life. The pressure being levied on the forests is causing anxiety to government and non-government actors at both the national and international levels.

The latest figures on deforestation rank Cameroon as second in the Congo Basin (first is Democratic Republic of Congo) with a net annual deforestation rate in the dense humid forests of 0.08% between 1990 and 2000 as against 0.03% between 2000 and 2005 (Ernst et al. 2010), and 1% if the other categories of forests are included (FAO 2009; de Wasseige et al. 2010).

There are many causes for forest degradation and deforestation; some are direct, others indirect. For forest degradation the development of agriculture, especially shifting slash-and-burn agriculture, is responsible for 80–95% and is considered a key contributor to the dynamics of degradation

(Essama-Nssah and Gockowski 2000; Makana and Thomas 2006; Bogaert et al. 2008). For deforestation, the main causes are, first, the development of cash crops through agroforestry (cocoa, coffee) that apparently covers 0.91 million hectares (MINEF and FAO 2007) and, second, agro-industries (rubber, palm oil, etc.), which are responsible for close to 30% (MINEF and UNDP 1999).

In Cameroon, the national wood sector (excluding fuelwood) produces close to 2.1 million m³ of roundwood equivalents (RWE), and the output of the informal production is equivalent to that of the official production (Cerutti et al. 2010). Between 2002 and 2010 the quantities of sawn wood in the Non-Permanent Forest Domains (NPFs) doubled from 300,000 m³ (Plouvier et al. 2002) to 662,000 m³ (Cerruti et al. 2010). On the other hand, the industrial forest operations are criticized because of the continuation of their illegal operations (although less) and corruption (Cerutti et al. 2008) and because they do not abide by approved management plans or exploitation conditions (Verleben 1999; Nasi et al. 2006).

Fuelwood is also listed as a cause of deforestation and forest degradation. Data show figures vacillating between 9.5 million (FAO 2006) and 12 million m³ (Essama-Nssah and Gockowski 2000; Topa et al. 2010). The deforestation rate is lower in Permanent Forest Domains (PFDs) than in NPFs.

Besides the direct factors of deforestation, there are indirect or underlying factors (externalities) of deforestation in Cameroon. In his analysis, Dkamela notes that the interaction of macroeconomic, agricultural, and monetary policies and the price of raw materials on the international market cause fluctuations in the pressure on the forests (Dkamela 2011).

2.1 Stakes in the Cameroonian forests

The economic, cultural and environmental stakes in Cameroonian forests make forest management increasingly complex.

2.1.1 Economic stakes

In 2004 forests contributed 6% to the national GDP and, in 2006 provided close to 16,000 direct jobs, according to the Cameroonian Ministry of Finance (de Wasseige et al. 2012). During the 1990s, Cameroon was the sixth largest tropical wood exporter in the world, and the fourth in Africa (Tchebayou 2004). Its position has not changed very much; it now ranks among the top five timber exporting countries in the world. Its timber production reached 4.7 million m³ of which 2.5 million m³ came from the informal sector (Cerutti and Tacconi 2008). This explains how informal drivers of deforestation and forest degradation cause enormous losses to the economy and why the State would do well to make the sector official (Imazon, ICV, WRI 2010).

Since 1998 the Ministry of Finance has collected between 14 and 19 billion CFA francs (between 30 and 40 million USD) per year in taxes from the forestry sectors. Land taxes (based on land area) that were actually collected at the national level in 2003 amounted to close to 10.4 billion CFA francs (21.1 million USD). Income from the Annual Forestry Fee (RFA) rose from about 11 billion CFA francs (24 million USD) between 2005 and 2007 to about 14 billion CFA francs (30 million USD) in 2008. This represented about 11.5% of export earnings and was second only to the oil industry. In 2009, its contribution was lower as a result of the worldwide economic crisis.

2.1.2 Cultural stakes

Forestlands in Cameroon have strong cultural value, and not only for people living in the forest regions. For the local communities, forests are a habitat, the place where survival depends on harvesting and hunting. For indigenous peoples, such as the Pygmies, the forest is a sacred environment where the gods live and where traditional rituals are performed. The various elements of the forest ecosystem (plants and animals) are also used as symbols. Furthermore, forests are a source of artistic and spiritual inspiration and have historical significance.

2.1.3 Environmental stakes

According to the Observatory for Central African Forests, in 2008 the forest cover of Cameroon was about 46.1 million hectares, with 19.09 million hectares of dense humid forest (de Wasseige et al. 2012), in other words 10% of the forests of the Congo Basin were located in Cameroon, and they covered close to 40% of the national territory (Robiglio et al. 2010). With 8260 plant species and 2000 animal species Cameroon is in fifth place on the African biodiversity list (Essam 2001; NBSAP 2002; Bele et al. 2011). Yet the Cameroonian forests are subject to strong natural and anthropic pressures that contribute to releasing CO₂ (see Table 2).

Table 2. Baseline scenario for projections of CO₂ emissions from the forest sector and conversion into grasslands.

Year	Population (millions)	Production of CO ₂ in the forest sector and conversion in grasslands (thousands of Gg)
1994	12.8	20.100
2000	15.1	23.700
2010	19.9	31.300
2020	25.7	40.400
2030	33.1	52.100

Source: Communication nationale du Cameroun (2005).

In an emissions-reduction strategy, special attention needs to be given to the NPDF where large-scale conversion threatens short-term survival (Dkamela 2011).

However, forest conservation measures can also contribute to reducing the vulnerability of forest populations to climate change (Locatelli et al. 2008). Besides the woody and non-woody products used to satisfy vital needs such as food, health care and habitat improvement, forests provide numerous environmental services by regulating climate and water flow rates, protecting the ground against erosion, maintaining biodiversity through the conservation of genetic resources, providing shelter and eating places for wild animals, promoting carbon sequestration, and recycling organic matter and human waste (MEA 2003; Lescuyer et al. 2009).

2.2 The forestry policies of an independent Cameroon

The functions and the various, sometimes contradictory, interests of forestry management have increased the political stakes of the Cameroonian forests since the country became independent in 1960. Following independence, the African states, on the whole, adopted policies much like the ones applied during the colonial period (Bomba 1991). At that time, forestry policy issues in Cameroon were part of a broader field that covered natural resources protection and management (Linjouom 2008). But a distinction can be made in the history of Cameroonian forest management between the period before and after 1992.

Between 1960 and 1992, decisions concerning natural resources management (which included forests) were made by a variety of ministries. (Mewondo Mengang 1992). After 1992, significant institutional changes were made in the assignment of responsibility for forest management. The government made institutional and legal reforms in the forestry sector to meet the requirements of sustainable management of forest resources, adopted by the 1992 Earth Summit in Rio de Janeiro. The Ministry of Environment and Forests (MINEF) was created (Essam 2001). In June 1993, Cameroon produced a forest policy document and, in 1994, a forest zoning plan for southern Cameroon. On 20

January 1994, the law on the Regime of Forestry, Wildlife and Fishery was signed, followed by the decree of 23 August 1995 on the Terms of Application of the Forest Regime which stresses forest management and nature conservation, taking into account the new global concepts of development. In 1996, the framework law no. 96/12 of 5 August on Environmental Management was promulgated and led to the implementation of a National Environmental Management Programme (NEMP). In 2005, the Cameroon Forest and Environment Sector Programme (FESP) was launched.

The 1994 Forest Law led to a decisive turning point in forest management in Cameroon (Linjouom 2008) mainly because it departed from strong State centralization. This was the major innovation of the law and established forest management decentralization in Cameroon. It was characterized, on the one hand, by recognition of the rights of riparian and decentralized territorial communities to accede to and to use the forest space and, on the other, by recognition of the rights of the latter to a share of forest revenue (Bigombe Logo 2007).

The law provides a classification of Cameroonian forest divided into permanent forests and non permanent forests). For more details, see Figure 4.

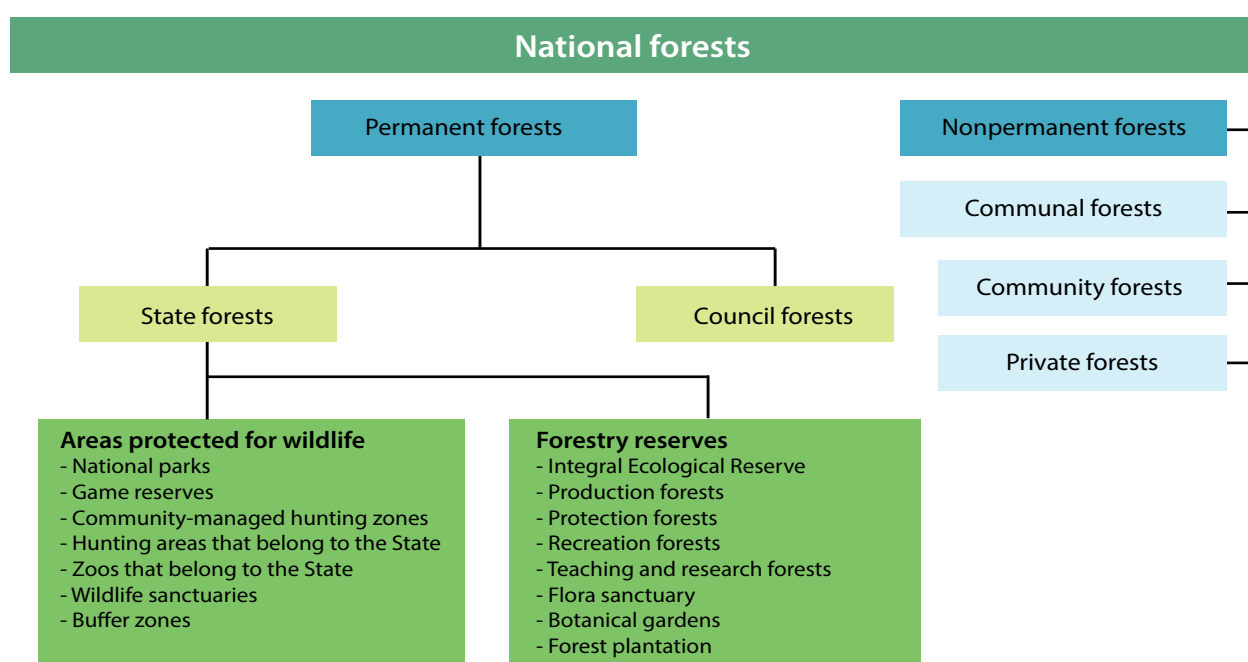


Figure 4. Allocation of Cameroonian forests according to the 1994 Forest Law.

Cameroon aims to “develop the total area of permanent forests to at least 30% of the national territory and represent the national ecological diversity” (article 22 of the 1994 Forest Law). The non-permanent forest domain is composed of forestlands that may be allocated to uses other than forestry.

2.3 The context of forest governance

The components of governance identified through the Governance Forest Initiative (GFI 2009) are: actors, rules and practices. We will only consider the rules and practices, in particular the ones related to land tenure, forest management, forest revenue management and land-use planning.

2.3.1 Land tenure

Land tenure can be defined as the set of modes and procedures for acquiring and appropriating land. In other words, it is a series of rules that define the modes of access, use and control of lands and their renewable natural resources. Cameroon is concerned about both land tenure and forest tenure. The latter includes all forest ownership rights and thus covers forest spaces and resources. These rights define the legal and customary relationship of the people with the forest (GFI 2009). It is difficult to dissociate forest tenure from land tenure because of the legal principle that establishes that ownership of the land overrides ownership of what is on the land (article 552 Cameroonian Civil Code). Five categories of law can be applied to forestlands: land ownership, customary-user rights, environmental protection, self-defense connected to certain conservation rights, and forest-products exploitation rights (Bomba 2004).

In principle, and according to the ordinance of 6 July 1974 defining the conditions of access to land ownership and setting out the modalities for the application of the land tenure regime in Cameroon, the forests are owned by the State, the communes, the customary communities and individuals (article 7 of the 1994 Forest Law). Also, in principle, all unregistered land belongs to the State but local populations can request that they be allocated as private property if they can prove that the land in question was being developed before 5 August 1974. Failing such proof, a concession-awarding procedure is applied.

Considering the present condition of the Cameroonian legal system, it is difficult to explain how one can have access to the land, but not to the forests on the land. But the State is always the legal owner of the community forests (Penelon 1995); they are not owned by the village communities, for whom they have been created. The community forests are part of the national domain, and the local populations have rights based on participatory and beneficial forest management decisions (Bigombe Logo 2007). The main recognized user right is the right to cut timber for home use. Little attention is given to other land uses such as agriculture. Despite the aforementioned rights, there is a risk of expropriation (article 8(3) of the 1994 Forest Law) for purposes of exploitation or conservation, under conditions that have not been unanimously approved (Bomba 2004; Bigombe Logo 2007).

2.3.2 Forest management

Cameroon has chosen a system of coordinated forest governance. Decentralization of the forest-related sectors can be traced back to the Cameroonian Constitution of 18 January 1996, Title 10, which organizes the decentralized territorial communities sector, especially the communes and the regions. The latter still benefit from privileges in forest management. In application of the 1994 law, forest concessions were awarded only after a detailed Forest Management Plan (FMP) was prepared. Order no. 222 of 25 May 2001 established procedures for formulating and approving management plans, and the country has defined its principles, criteria and indicators (PCI/OAB/ITTO) and prepared a related monitoring and evaluation manual (MINFOF 2010). After the 2007 reform, the plans for close to 50% of the 101 Forest Management Units were approved and Cameroon launched a voluntary certification process for its production forests. That same year, the country signed a Voluntary Partnership Agreement (VPA) with the European Union that was supposed “to contribute to timber-producing countries’ commitments to promote sustainable forest management” (European Union 2007).

Forest management has also experienced major changes in planning the allocation of titles. Cameroon introduced a tendering system in which access is based exclusively on technical and

financial criteria. The transparency of the process is guaranteed by an interministerial commission assisted by a technical commission and an independent observer. Yet, despite these measures, there has not been any notable improvement in forest management in the country (Clough et al. 2010) because the measures stemming from the 1994 reform (Topa et al. 2010) are not properly applied.

The Cameroonian forestry sector contributes to national development, but it also contributes to deforestation and forest degradation through waste and the impacts of harmful externalities connected to changes in the global economy (Dkamela 2011). Illegal forest activities are also to blame. Besides removing timber illegally, they do harm to the environment and the livelihoods of the local communities. According to Cerutti and Tacconi (2006), illegal forest activities have been resumed for four main reasons: (1) the devaluation of the CFA franc, (2) the expiry of the export licenses, (3) the suspension of the small logging permits, and (4) the non-allocation of new forest management units (FMUs).

2.3.3 Forest revenue management

Forest revenue is managed at the central level by the Ministry of Finance and funneled through the Forest Revenue Securement Programme (FRSP). Riparian populations are entitled to part of the profits from the timber sales and to part of the felling and leasing taxes. Payments of the share of these two taxes to which the local populations are entitled is made according to a plan defined by law, and includes payments connected to both forest and wildlife activities. Joint order 0520/MINATD/MINFI/MINFOF of 3 June 2010 introduced a new breakdown for the allocation of revenue from forest exploitation. However, the centralization of fund management is criticized for making it more difficult to mobilize the funds from funding mechanisms, especially the Forest Revenue Securement Programme (FRSP) and thus hampering the work of the Cameroonian forestry services (Karsenty et al. 2006; MINFOF 2010).

2.3.4 Land-use planning

Land-use planning is under the Ministry of Economy, Planning and Territorial Management. The present government's plan to turn Cameroon

into an emerging (middle-income) country by the year 2035 has led to many projects (committed or announced) in infrastructure (roads, ports, energy) and natural resources (forestry, mining, agro-industries, etc.). These projects involve the allocation of space, in other words, they need to be planned. The country already has planning problems, e.g. many cases of overlapping titles for mining and forest operations have already been recorded (WWF 2012).

2.4 Climate and forest policy in Cameroon

To understand the political climate in Cameroon, which has not yet been clearly defined, reference must be made to current international negotiations, the overall national environmental policy and the dynamics generated by the potential establishment of the REDD+ mechanism. Cameroon's official position has not yet been set out in legal documents, other than its international commitments. Cameroon is participating in the negotiations on the United Nations Framework Convention on Climate Change (UNFCCC), which it signed on 16 June 1992 and ratified on 29 August 1994, and the Kyoto Protocol, which it joined on 23 July 2003.

Several national legal instruments have been developed in connection to these conventions. Until 2011, the 2005 Initial National Communication (INC) was the only source of information on climate change in Cameroon. Under the INC, discussions were often held on GHG reduction mechanisms such as the Clean Development Mechanism (CDM). Decree 2011/2582/PM of 23 August 2011 to lay down rules for the protection of the atmosphere was Cameroon's first legal document specifically devoted to air. Although it does not refer to climate change *per se*, it identifies a certain number of air pollutants that it says are "under control," including CO₂ (article 4). The decree subjects the use of "all new sources of air-polluting emissions" to an environmental permit [article 8(1)] whose terms and conditions are spelled out by the minister in charge of the environment [article 8(2)], and specifies that the following activities, *inter alia*, shall be subject to a permit: "forest exploitation and wood preparation," the "sawmills" and the "wood preservation industries" (annex to the decree). Since there is no application decree,

this legal document has not yet entered into force, and thus the fight against climate change still falls under the 1996 framework law on environmental protection and other sectoral documents.

2.5 Forests and climate change: Finding a consensus between short-term development and sustainable development

In the document on Cameroon's vision for 2035, the government recognizes a certain number of risks to the country's natural resources, especially the risk of overexploitation (MINEPAT 2009). The related working document says: "Cameroon should develop appropriate strategies for coping with other threats such as deforestation, loss of biodiversity..." (MINEPAT 2009). Similarly, points 119 and 206 of the Growth and Employment Strategy Document (DSCE) on the assets of the country and on natural resources management states that Cameroonian forests must be managed in a sustainable manner (DSCE 2009).

Research has produced national figures that do not reflect this position. The amount of timber removed by the informal sector is equivalent to, or even greater than the amount that is removed legally (Cerutti and Tacconi 2006). Hence any short- or medium-term development strategy that neglects the informal sector may jeopardize the fulfilment of conservation and sustainable exploitation goals. Similarly, since the decree of 23 August 2011 on the protection of the air has not been applied, it is debatable whether it contributes to the fight against climate change. Last, as concerns forest management, it is important to discuss the procedure for obtaining access to land ownership and to clarify the question of the ownership of planted trees in order to stimulate initiatives in private forestry and agroforestry. Such initiatives could contribute to the fight against climate change.

3 The policy process for REDD+

The focus on the REDD+ policy environment in this section will make it possible to understand the events, actors and policy networks connected to the establishment of this mechanism in Cameroon, and to define the nature of the consultation process. REDD+ was mapped in research carried out in 2011 under the CIFOR GCS-REDD+ project (see Dkamela 2011). This section, based on the conclusions of that research, has adopted the perspective of an approach to develop synergy under the country's adaptation policy process.

3.1 Assimilating the process from the international to the national level

Although the context of forest management has been roundly debated in Cameroon, since 2005 the country has participated in negotiations for the inclusion of forests in the post-Kyoto agreement on fighting climate change, via the REDD+ mechanism.

Cameroon's position on this issue is anchored in that of the Central African Forest Commission (COMIFAC) countries with emphasis on the REDD+ policy and related financial incentives. After the validation of the country's R-PIN in 2008 and its R-PP in 2012, Cameroon entered the preparatory phase to the drafting of its national REDD+ strategy. The 2012 R-PP document has many facets and includes two types of forests (NPFDs and PFDs). It focuses on the market system that benefits the public sector, private sector and small rural operators (MINEP 2009).

In the Cameroonian position paper on climate negotiations,

“Cameroon proposes that:

- the REDD projects be prefunded;
- REDD be applied in the arid zones;

- indigenous knowledge be taken into account, optimized and promoted under the REDD mechanism;
- REDD be adapted to meet the problems of community forestry, and
- the carbon evaluation capacity be developed as part of REDD” (MINEP 2009).

This document was not well supported in-house. For several years, the country's lack of interest in launching the process has made it difficult to create any tangible REDD+ events. This said, there have been some small initiatives that could grow as part of efforts to construct a national strategy.

Many plans for feasibility studies on REDD+ projects have been made. The first one came from a decision dated 15 January 2009 on the creation of a steering committee for a REDD-Cameroon pilot project. The aim of that project and the following ones was to plan for the future and prepare the country for the mechanism by accumulating field experience that would contribute to the preparation of a national strategy.

The National Observatory on Climate Change (ONACC) was created by a decree of 10 December 2009, to fulfil a promise that the President of the Republic made in his speech before the 62nd United Nations General Assembly in New York on 26 September 2007. The purpose of the Observatory was to monitor and evaluate socioeconomic and environmental impacts, to take measures for the prevention of, the mitigation of and/or the adaptation to the harmful effects and the risks connected to climate change. An organizational chart showing the organization of REDD+ management is included in the R-PP document. The ONACC ranks high among the institutions that will be interacting with the Technical Secretariat (Figure 5).

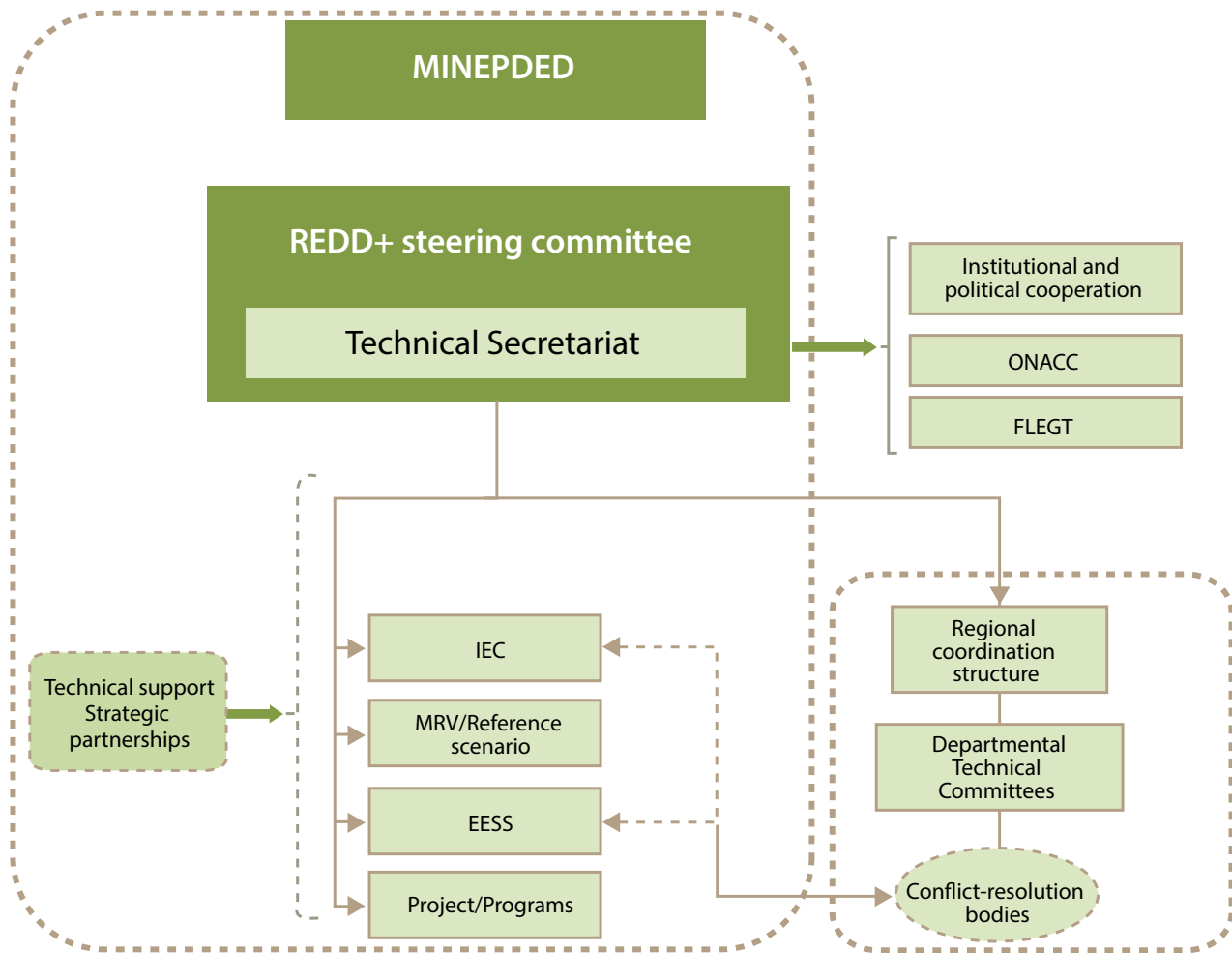


Figure 5. Organizational chart of management institutions for the REDD+ process.

Source: R-PP

REDD+ has been slow in getting its bearings in Cameroon. An analysis of the discussions on REDD+ shows that the media were slow in developing interest in the subject (Kengoum 2011). Furthermore, the process that was started in 2005, the R-PIN that was validated in 2008 and the R-PP that was validated at the end of 2012 all evidence the sluggish pace of the procedure. The same holds true for REDD+ funding. Figure 6 presents the breakdown of the Forest Carbon Partnership Facility (FCPF) funding consumed by the establishment of the REDD+ mechanism. In 2011, Cameroon was in last place among the countries in the subregion. Although the classification has changed, national funding for the process is still slow.

3.2 An arena of strongly centralized policy actors

There are many people working on REDD+ in Cameroon. A presentation by category would better explain their roles in establishing the mechanism and the stakes associated with their involvement in the process. Studies on the people involved (Kengoum et al. 2012; Somorin et al. 2013) have led to the identification of several categories of actors: governmental and non-governmental, national and international.

3.2.1 Governmental actors

It is not easy to define government responsibility in the REDD+ establishment process. Claims for leadership long pitted the Ministry of the

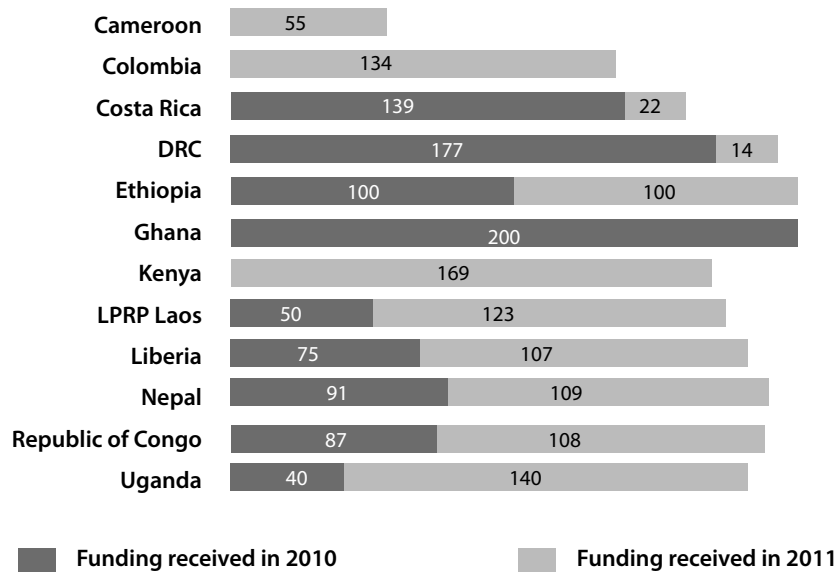


Figure 6. Distribution of REDD+ funding per country for 2010 and 2011.

Source: FCPF, 2011

Environment, Nature Protection and Sustainable Development (MINEPDED) against the Ministry of Forests and Wildlife (MINFOF). This problem can be traced to the overlapping interests of climate and forestry issues in the REDD+ mechanism and the clear separation of the two ministries in Cameroon. Reviewers of the R-PIN for Cameroon urged that the lines of responsibility be carefully defined (FCPF 2008a) but did not make any clear proposals. In the R-PP document, leadership for the REDD+ national committee is assigned to the MINEPDED, which thus is the government's official representative at climate negotiations and for establishing the mechanism at the national level.

Besides MINEPDED and MINFOF, the Ministry of the Economy, Planning and Regional Development (MINEPAT) is essential because of its responsibility for zoning and allocating lands for various uses. By making the question of land planning a crosscutting strategic option in REDD+, the R-PP emphasizes the leading role of this ministry in the REDD+ process. The Ministry of Social Affairs (MINAS) is also involved although it has not participated actively in the negotiations. The Ministry in charge of State Property and Land Tenure (MINDAF) does not seem to be much involved in the process yet, despite the importance of land and forest tenure mentioned above. Discussions in these ministries are still limited to the installation of REDD+ focal points, which explains the difficulty in finding the right contact people.

3.2.2 Organizations of international stature

Most of the people working on REDD+ at the national level are involved with organizations of international stature (Kengoum *et al.* 2012). These organizations generally participate through local projects, research initiatives and funding for REDD+ activities in the field (The REDD Desk 2011). They include, *inter alia*, conservation organizations such as the International Union for the Conservation of the Nature (IUCN), World Wide Fund for Nature (WWF), Wildlife Conservation Society (WCS) and bilateral organizations such as Agence Française de Développement (AFD), French technical cooperation, German cooperation and development bank (GIZ and KfW), Japanese cooperation (JICA), research institutions and centers (CIFOR, ICRAF, CIRAD, IRD, etc.) and multilateral organizations (World Bank, GEF, African Development Bank, etc.). This list is not complete and, furthermore, different organizations participate at different stages of the installation of the REDD+ mechanism.

The international actors form two groups: the Multipartner Committee (CMP) and the Consultation group of partners of the Ministry of the Environment and the Ministry of Forests (CCPM). They coordinate support activities for partners working on government actions in the field of development in general and more specifically on climate change. The CCPM has a REDD+ subgroup that provides technical and financial support for establishing the REDD+ national strategy in Cameroon.

3.2.3 National civil society organizations

Although the number of national civil society organizations has been increasing since the establishment of REDD+ and the climate change platform of civil society and its regional branches, only a small number of these organizations conduct activities that devolve to REDD+. Doubt about the legitimacy of civil society representation in Cameroon (CED 2010; Owona 2010) has made it difficult to identify a common position for these organizations in relation to the REDD+ national strategy that goes beyond one official statement and seeks to turn REDD+ into a “development tool for Cameroon” (R-PP 2012). When drafting the R-PP, the success of efforts to unite civil society in supporting the process of drafting the document and then submitting and defending it obviated the supposition that representation was inadequate. It is, however, difficult to justify and systematize this position.

3.2.4 Actors of the national business world

Agro-industries and the forest exploitation companies are clearly missing from the REDD+ process in Cameroon. They are seldom or hardly ever seen. Since there is no national strategy, it is difficult to mobilize them, despite the preferred relations they enjoy with the State because of their economic importance.

3.3 The consultation process and the multi-actor fora: Somewhere between consensus on substance and negotiations on form

The principle of the concerted governance strategy that the Cameroonian government took from the 1993 forest policy document (Title 3.2) is not being questioned but much discussion is being held on the approach. There is nothing in the document that obliges the government to include

Table 3. Summary of strategic options for the agro-ecological zone (Source: R-PP, Cameroon 2012).

	Humid forest zone with bimodal rainfall pattern	Humid forest zone with monomodal rainfall pattern	High plateaus zone	Guinean high savannah zone	Soudano-Sahelian zone
Promotion of competitive agro-sylvo-pastoral activities that respects forests and natural resources					
- Sustainable agriculture and livestock production	+++	+++	+++	+++	+++
- Support measures (funding, equipment, training, etc.)	+++	+++	+++	+++	+++
Sources of energy diversified to reduce pressure on wood stocks					
- Improved cook stoves and ovens	+++	+++	+++	+++	+++
- Plantations to produce energy		+	++	+++	+++
- Alternative energy	+++	+++	+++	+++	+++
- Energy efficiency	+++	+++	+++	+++	+++
Increase in the carbon stock facilitated through sustainable forestry and the conservation of protected areas					
- Reduced Impact Logging (RIL)	+++	++			
- Improved matter yields	+++	+++			
- Better management of protected areas	+++	+++	+++	+++	+++
- Afforestation, reforestation	+	++	+++	++	+++
- Forest and wildlife control	+++	++	+	+	++

+ to +++ : from least important to most important

all the forestry sector stakeholders in the decision-making process. Other than the size and non-representativeness of the sample, the government, especially MINEPDED, is being blamed for not consulting the forest communities, especially the Baka and Bayeli whose very survival depends on the forests (FCPF 2008a). As the consultation process was weak, civil society organizations tried to organize their own meetings to discuss REDD+ and also to convey their opinions during the preparation of the national strategy. This led them to develop the REDD+ and climate platform mentioned above.

The problem of the type of participation in REDD+ was solved through the R-PP, which states that “the participation of indigenous peoples in the process will respect FPIC [free, prior and informed consent].” Time has shown that the civil society organizations fighting for FPIC were right (FPP 2010). As concerns FPIC, as such, recent studies indicate that the State should not only harmonize the definitions specific to the many concepts used in FPIC but should also avoid confusing them with other rights (Karpe 2013).

Last, it is difficult to say whether meetings have been held with forest enterprises (FCPF 2008b) as part of the process. The Cameroonian R-PP purports that “over 3000 people have been informed and consulted.” The participation in drafting the R-PP was evaluated as follows: civil society 60%, women close to 25%, indigenous peoples close to 7%, private sector 1%. No distinction is made between the people who were “informed” and the people who were actually consulted. Similarly, no remarks have been made about the procedure used to reach this result.

3.4 Strategic options for REDD+

A few proposals have been made on future options for REDD+. They are mainly based on the government’s determination to make Cameroon an emerging country by the year 2035. It is with this in mind that we should understand the meaning of what a member of the Cameroonian government had to say: “the government’s aim is to turn REDD+ into a tool of development, failing which REDD+ will be useless for Cameroon.” There are two goals: reduce GHG emissions, mainly CO₂ caused by deforestation and forest degradation,

and contribute to development as described in the DSCE (R-PP 2012) and the Cameroon Vision 2035 programme document. Two types of strategic options have been suggested: options connected to sectoral investments (agriculture, livestock, energy, forests, see Table 2) and crosscutting options connected to the “conditions of success for REDD+” which include land tenure, territorial management and responses to weak governance.

3.4.1 REDD+ strategic options: Agricultural policy versus short-term development

Cameroon has decided to construct its REDD+ strategy “to be consistent with the agricultural policy currently in force” (R-PP 2012). This brings up the question of the relevance of the agricultural policy that was adopted in 1990, at a time when the fight against climate change in the dense humid forests was not yet on the country’s political agenda. The country does not have an agricultural orientation law, but does have a SDSR that includes an “agricultural and rural development” component. The SDSR indicates that Cameroon is seeking to grow its agricultural GDP to an annual rate of 8% by 2015 by increasing its export rate from 6% to 7% during the same period (SDSR 2006). To reach these goals will require considerable arable land areas in the rural zone, which means that more lands will have to be cultivated. Statistics indicate that plantations of palm oil trees alone will require close to 1 million hectares (FPAE and CIRAD 2011), and lands for many other crops will have to be added.

None of the agricultural modernization techniques being considered specifically tackle the question of monocropping as now practiced. Yet monocropping causes substantial deforestation. Agro-industry promoters have enormous amounts of money available to impact plans when newly zoned land areas are being allocated. During this same period of time, the PFD has not yet reached its 30% goal. The question is whether work to achieve the REDD+ goals and to implement the agricultural policies as set out in the DSRF and the Cameroon Vision 2035 documents are compatible. This brings up the question of exploitation versus conservation. Relocating industrial agricultural extension plans to other agro-ecological zones where the impact on the forests would be less does not seem to be an option.

The Cameroonian R-PP sets the deadline for installing the national REDD+ strategy at the end of 2015. The SDSR intends to fulfil its development goals for the rural sector by that date too, through exponential increases in farmland (SDSR 2006). Were these goals to be reached, the introduction of the REDD+ national strategy in 2015 may be too late.

3.4.2 Crosscutting options: The challenge of coherence among sectoral policies

Two observations can be made about Cameroon's capacity to meet the ambitious specifications set out in the R-PP concerning land tenure, territorial management and governance; all are presented as crosscutting options.

First, to make the REDD+ strategy successful, the sectoral laws (such as the previous land tenure law) must be amended. The need for the REDD+ strategic goals to be put on the sectoral agenda is evidence of the intersectoral character of this mechanism. The decision to focus on crosscutting options as "conditions for the success of the REDD+ mechanism" reflects the importance of implementing strategic options stemming from the R-PP in order to ensure the effectiveness of the mechanism. Reform measures are being made and others have been announced, e.g., regarding the land and forest tenure law, discussions are underway on making the laws compatible with the country's development goals. But it is difficult to

define the appropriate part of the fight against climate change to include in this undertaking.

Second, REDD+ is being viewed as an instrument to serve the sectoral reforms related to its goals. The preparatory document describes the context for the establishment of REDD+ as an opportunity to help the services in charge of land tenure and land planning to revisit the laws in their fields of jurisdiction and make them compatible with the national REDD+ strategy. This interlinkage is being considered to improve the conformity of various laws. There are even plans for REDD+ to help with the analysis of policies already in force by assessing their effectiveness and efficiency and, where appropriate, suggesting amendments.

According to the R-PP (2012) document, the "alignment of legislation may last." This brings up the question of the capacity of the REDD+ political process not only to mobilize the required resources but also to fulfil its objectives within a reasonable period of time. Besides this issue, there are contradictions that need to be ironed out, e.g. the overlapping of laws on the allocation of forest, mining and even agro-industrial operating titles, as was indicated in studies carried out in the country (WWF 2012; CED 2013). This leads to the question of the terms of reference of the REDD+ strategy and whether the process will be able to assimilate all these changes. Regular adjustments will be needed to keep the national REDD+ strategy realistic.

4 The adaptation-oriented policy process

This section recognizes the importance of focusing on the adaptation of forests (as ecosystems) to climate change, but is restricted to the relationships between the populations living in the Cameroonian forests and the effects of climate change, and to the solutions being developed at the national level to provide support for the adaptation process.

4.1 Vulnerability and adaptation: An analysis of the relationship between forest communities and their forests

Ecosystems are very important in the adaptation process since they provide goods and services that contribute to reducing the local populations' vulnerability to natural and anthropic shocks to their environment (see Figure 7) (Pramova 2012a).

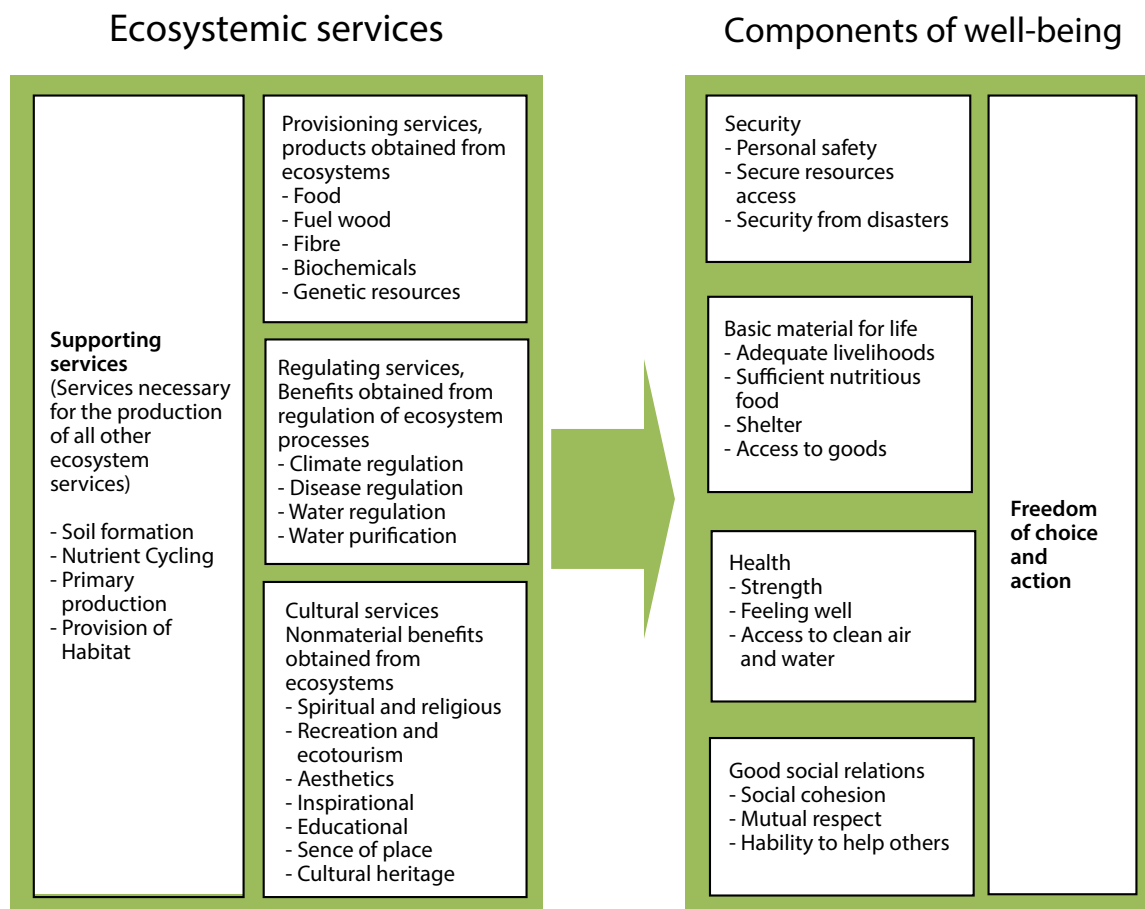


Figure 7. Examples of ecosystem services and their links with human well-being.

(Source: Millennium Ecosystem Assessment 2003)

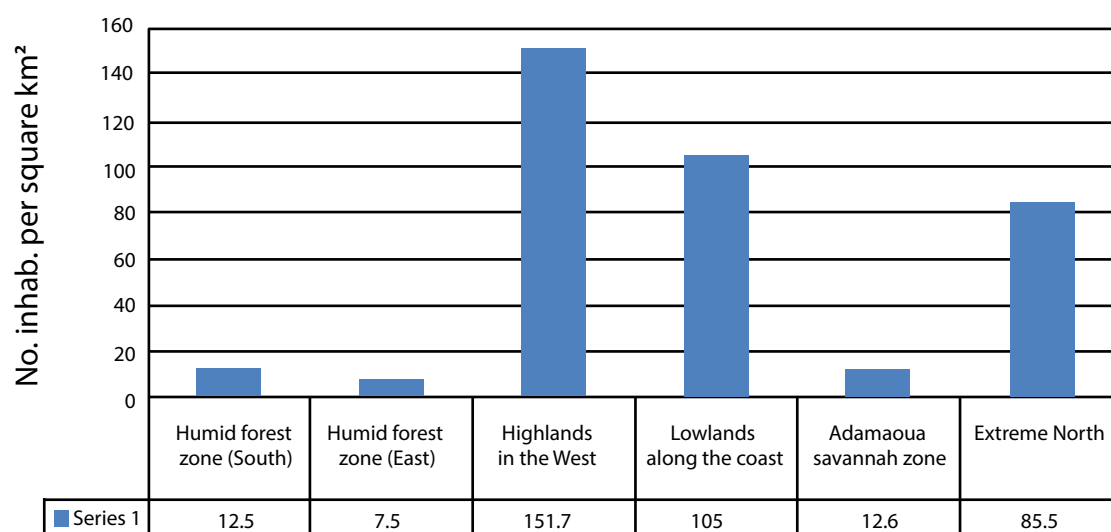


Figure 8. Density of Cameroonian population per zone.

Source: Data from Robiglio et al. (2010).

The international community recognizes that these effects will be felt more by the vulnerable populations in developing countries if the proper measures are not taken early enough (IPCC 2007).

In Cameroon, population density varies from zone to zone (see Figure 8); 43% of the population lives in rural areas (FAO 2010a). Many Cameroonian rural people live below the poverty threshold. Some reports indicate this figure to be 80% (UNDP 2011) but SDSR, referring to a household survey (named ECAM), sets the figure at 50%. The poverty threshold is based on the adult-equivalent guaranteed minimum interprofessional wage (SMIG) of 23,514 CFA francs per month in mid-February 1995 and at 28,216 CFA francs at the end of June 2008 (about 56.5 USD per inhabitant).

In Cameroon, the first INC on climate change inventoried the country's activities in the field of climate change adaptation up to 2005. Since there were no other INCs, there is no information for the period after 2005. The INC evaluation is mainly devoted to causes of vulnerability in the Soudano-Sahelian and mangrove zones, without any special attention to the dense humid forests. Similarly, solutions to adaptation issues seem to be limited to the zones mentioned above; forest problems have not been well studied (Bele et

al. 2011). Possible explanations: the tendency to think that the country still has large stretches of forestlands, or else, the very low population density in the forests prevents the forest dwellers from making their voices heard.

Unlike certain other countries in central Africa, Cameroon has not yet produced a National Adaptation Plan of Action (NAPA) on climate change. This may be because Cameroon was not one of the least developed countries (LDC) in 2001 when the international community, through the Global Environment Facility (GEF), pledged to pay for the preparation of these NAPAs in LDCs (Kengoum 2009). Without such a plan, Cameroon had to adopt a politico-economic approach and make documentation studies to identify the sensitive sectors and the most important activities for adapting to climate change in the forest zones. But in most cases, as seen in other contexts, forestry and forests, as a whole, did not seem to be high on the priority list of the NAPA (Locatelli et al. 2010; Pramova et al. 2012b).

4.2 Sectors, vulnerable livelihoods and adaptation priorities

There are two approaches to analyzing vulnerability: the vulnerable sectors approach and the vulnerable livelihoods approach.

4.2.1 Vulnerable sectors

The Cameroonian INC identifies five sectors that are sensitive to the effects of climate change: industry, agriculture, waste, energy and forests. More recently, the progress report for the UNDP study (2011) identified eight sensitive sectors: agriculture, livestock, fishery and aquaculture; biodiversity; water; energy and mining; industry; sanitation and health; urban development and public works, and, last, human development (UNDP 2011). But it is difficult to assess the effects of this vulnerability on the local populations based on per-sector vulnerability alone. It needs to be coupled with an analysis of the means of livelihood, which are also vulnerable.

The following vulnerable sectors have been identified in the bimodal forest agro-ecological zone of Cameroon: agriculture, livestock, fishery and aquaculture; biodiversity; and sanitation and health (UNDP 2011). On agriculture, the report observed a decrease in agricultural activities due to climate change and an extension of agricultural activities toward the lowlands. Other activities included forestland recovery, community greenhouses, waste management, and vegetable gardening. The report is vague about livestock production, fisheries and aquaculture, and merely makes mention of the vulnerability of the hydrographical system. Biodiversity in the forest zones suffers from pressure caused by the development of infrastructure, industry and population growth. One of the most severely threatened activities is the collection of non-timber forest products (NTFP). Last, there is the sanitation and health sector; an upsurge of diseases and deaths that can be attributed to the induced effects of climate change.

4.2.2 Vulnerable livelihoods

The approach based on the means of livelihood mainstreams the rural poor in a network of interdependent influences that impact the manner that these people create the means of livelihood for themselves and their households (IFAD n.d.). Livelihood covers the capacities, goods and activities needed to survive (Warner 2000). Cameroon's forest populations are vulnerable to climate change, which creates the need for new survival techniques, over and above agriculture, hunting and the gathering of wild

plants. The vulnerability of both the sedentary and the nomadic forest populations has been acknowledged. The Cameroonian government and its development partners are seeking to cope with this problem by sedentarizing the Pygmy populations and training them in agriculture, since NTFP are becoming increasingly scarce and more lands are becoming protected areas, thus limiting the forest dwellers' access to the forest resources.

Unlike the vulnerability approach, the livelihood approach can offer the country's forest populations the resources for sustainable livelihood. Livelihood becomes sustainable when the people are given the ability to adapt to difficulties, cope with adversity and maintain or improve capacities and goods (natural, physical, financial, social and human capital) either in the present or in the future, without compromising the natural resources base (Carney 1998). Forests are an important natural capital and as such contribute to sustainable livelihoods; yet it is very difficult to quantify their potential. In general they contribute to increasing income and food security (Byron and Arnold 1999), reducing vulnerability and ensuring a more sustainable use of the natural resources base (Arnold 1998).

It is noteworthy that the analysis of the Cameroonian context does not emphasize the sustainable livelihood approach. Moreover, development sectors that are sensitive to climate change may contribute to the vulnerability of the livelihood of their target populations. However, in the Cameroonian situation the livelihood approach seems appropriate because of the forest populations' strong dependence on the forests. When applying this approach, the related analyses can be used to draw up the most fitting policies for tackling the real constraints of climate change in the forest context. Sonwa et al. (2012) evaluated the vulnerability of forest communities in Cameroon by assessing four elements of their existence: food, energy, health and water.

4.3 Policy processes and events connected to adaptation

The reconstruction of events connected to the adaptation policy processes requires an understanding of the processes used in policies to fight climate change. There are very few facts and events directly connected to the climate adaptation

policy process. They are limited to the ratification of the UNFCCC, the preparation of the INC, the creation of the ONACC, the launching of the UNDP Climate Change Adaptation Programme (CCAP) project, and the ecosystems vulnerability evaluation project in the country's mangrove region. In Cameroon's agro-ecological zone, the mangrove region project is the most advanced in evaluating vulnerability (Ajonina et al. 2009). As a result of this project, UNDP is supporting and the Japanese government (via JICA) is funding the CCAP, which is designed to help Cameroon build up its local and national capacity to design, fund and implement the monitoring and adjustment of long-term adaptation policies and programs.

One of the main difficulties in making a complete list of the facts and events connected to climate change adaptation in Cameroon is the absence of an institutional framework for discussing the subject and the relatively little success recorded in implementing the process. However, it would be possible to draw up a list that gives an idea of the events in the climate change controlling process that could be directly useful in efforts to introduce a national adaptation policy (see Table 4).

4.4 Policy actors for adaptation issues

Three documents can be used as the basis for identifying the stakeholders in the Cameroon adaptation strategy: the first INC, the decree creating the ONACC and the 2011 CCAP report which, to date, is the only document specifically for the stakeholders of climate change adaptation in Cameroon. They have been identified using an approach based on the perception of the importance of the actors in the process. The INC and the decree creating the ONACC only refer to them incidentally. A reconstruction based on their initiatives would be needed in order to understand what could be called the arena of political actors in the field of climate change adaptation in Cameroon. We will classify the actors into categories, as for REDD+ above.

4.4.1 Governmental actors

The decree to create ONACC appoints a 12-member board of directors (article 6). Adaptation issues, however, are essentially under MINEPDED, which houses the

ecological monitoring and evaluation unit and the UNFCCC climate change focus. It also provides an institutional base for ONACC. There are other ministries involved, mainly, the MINFOF, the Ministry of Scientific Research and Innovation (MINRESI) via the National Institute of Statistics (NIS), the Ministry of Transport (MINTRANSPORT) through its national meteorology department, the Ministry of Agriculture and Rural Development via the Institute of Agronomic Research for Development (IRAD), the Ministry of Energy and Water Resources (MINEE) and the Ministry in Charge of Technical Cooperation. It is noteworthy that MINAS is not on the list, although climate change affects essential components of the life of individuals and communities and can even be harmful to social cohesion. Furthermore, MINFOF is not even included in the small climate change adaptation initiatives. Regarding climate change adaptation, the Cameroonian governmental actors are often criticized for their incapacity to produce the reliable data needed for informed decision making (UNDP 2011).

4.4.2 International actors

Many international organizations are working on the adaptation issue in Cameroon. They are the main source of support in the fight against climate change, especially the adaptation side. UNDP is the leader in this category. It uses a participatory approach to help the country develop a NAPA to mitigate the effects of climate change. International research is also represented, e.g. CIFOR and ICRAF. COMIFAC has also launched or supported activities designed to lay the groundwork for building up knowledge in the context of vulnerability and the development of tools such as Monitoring, Reporting and Verification (MRV) to counter it. As for REDD+, the international bodies are mainly working on the various processes and establishing the bodies defined in the official documents. The African Model Forest Network (AMFN) is an exception. Its activities with the Rural Women's Association of Dja and Mpomo and with Campo-Ma'an contribute to capacity building by developing and testing innovations in weather-resistant green agriculture and in other activities that maximize forest resources and diversify sources of income.

Table 4. Policy facts and events of relevance to an analysis of the climate change adaptation policy process in the forest areas of Cameroon.

No.	Events connected to climate change	Date	Connection with the political adaptation process
01	Ratification of the UNFCCC	October 1994	The UNFCCC seeks to fight climate change through mitigation and adaptation strategies.
02	Law no. 94-01 on the forest regime	January 1994	The law gives tangible expression to commitments and recommendations stemming from the Rio conference and the forest policy framework document. The participation of all the stakeholders, including the forest populations, provides an opportunity to better understand the context of vulnerability.
03	Forest policy framework document	August 1996	The country has decided on participatory management for the forests, which will contribute to rural development and to raising the standard of living of the forest dwellers.
04	Framework law for environmental management	August 1996	The law recognizes that everyone has a right to information and to benefit from measures to prevent and compensate for the detrimental effects of activities that are harmful to health and well-being.
05	Funding the development project for a project proposal on enhancing the resilience of coastal areas to climate change (GEF fund-Pdf-a)	2003	Restoration of mangrove forests, production of improved smokehouses to make the use of wood from the mangroves more efficient and to ensure continued use by the local population.
06	First INC	2005	First evaluation of vulnerability at the national level.
07	National Observatory for Climate Change	December 2009	First institution devoted specifically to monitoring and evaluation of adaptation (and mitigation) policies.
08	Launch CCAP project coordinated by UNDP		
09	Launch platform of REDD+ and civil society-climate change	July 2011	Conglomerate of civil society organizations whose aim is to influence the climate change policy process.
10	Conservation of three of the nine forest concessions at Ngoyla-Mintom for which exploitation rights have been refused	August 2012	This conservation decision meets the need to protect forest biodiversity and resources that can benefit the forest dwellers, who depend on them for survival.
11	Reforms underway or being planned with opportunities/ implications for adaptation activities. Project to evaluate vulnerability preliminary to the preparation of the NAPA: underway; Rethinking the 1994 Forest Law: underway; Amending the 1974 Land Tenure Law: discussed; Draft of pastoral code: awaiting approval from Prime Minister's office; Revision of application decree to mining code: envisaged.	2012-2014	These activities provide an opportunity to reconsider the place of climate change adaptation in these sectors.

4.4.3 Organization of national civil society

It is difficult to envisage the work done by the civil society actors in the field of climate change adaptation in Cameroon and, more specifically, in the bimodal forest zone. They have carried out many activities that did not display any specific effect but which contributed to fighting and adapting to climate change. Information about these initiatives is scarce and inaccessible, making it hard to draw up a complete list of the members of the civil society working in this sector.

4.4.4 Actors in the business sector

As in REDD+, business people have participated very little in the adaptation policy process in Cameroon. Yet, according to reference documents, some of the sectors in which they work are vulnerable to climate change. It would be difficult to give specific names, except for companies working in the hygiene and sanitation sector, such as Hygiene and Sanitation Company of Cameroon (HYSACAM), which has put climate change on its agenda.

From the above, we see that the fact that not all stakeholders are involved in a global adaptation strategy causes a problem of coordinating these nascent initiatives between subgroups of actors or between actors within the same category (MINFOF/PACC/PNUD 2012). Similarly, there is still a need to strengthen the role of the State's decentralized services and attend to funding for adaptation activities.

4.5 Policy options for adaptation activities in Cameroon

On the international stage the Cameroonian government speaks of the need to expand the adaptation fund for the preparation of a NAPA to include all developing countries and to provide support for the implementation of the resulting programs. The country is also looking to benefit from local traditional and scientific knowledge of constraints on the environment (MINEP 2009).

Data were not available to evaluate the well-being of the forest population on the basis of the context of vulnerability. The lack of regular evaluations and social indicators to produce these data constitute the main difficulty in defining a coherent adaptation

policy that could cover most of the needs. Indicators obtained from the Organisation for Economic Co-operation and Development (OECD) Pressure–State–Response model could generate information on the interdependence between forest populations, their environment and their well-being (OECD 2011). At present, there is no systematic knowledge available on the social context of the Cameroonian forest zones and the situation that the policies seek to impact in these zones, or even possible responses that could influence society. For the time being, there are just a few lines of thought on the subject.

Discussions on adaptation policies in Cameroon gravitate mainly around the activities that could be undertaken pending the operationalization of the ONACC and the preparation of the national plan. CCAP has prepared a report on the stakeholders' reactions to the creation of a consultation and coordination 'platform' that could take initiatives in the field of climate change adaptation, without encroaching on the goals of the ONACC. Discussions under the ægis of MINEPDED (environment), with the participation of other ministries and interested stakeholders, would not suffice to accurately predict (as part of a literature study) what directions the future adaptation policies might take in the forest zones of Cameroon. The UNDP Progress Report (2011) on the evaluation of risks, vulnerability and climate change adaptations is the only document that can give a clue to the country's potential adaptation policy in the agricultural sector. The document says nothing about possible avenues of development in other fields, e.g. forestry, but refers to awareness-building and subsidies as the first solution, followed by the installation of weather stations. At the time of this study there were not even 10 that were still working throughout the country.

However, actions for vulnerable and for crosscutting sectors are strategic to the development of coherent sectoral policies (MINFOF/PACC/PNUD 2012). This point of view does not fit in with the statement that the "focus on climate change may not easily lead to a comprehensive, multisectoral effort addressing adaptation" (World Bank 2010). As mentioned above, there are two possible approaches, but they require an analysis of the vulnerability of the country's economic sectors and their links with the forests, and an analysis of the vulnerability of the local communities and their lifestyles, assets and links with the forests.

Last, the low population density in the forest zones constitutes a risk for the climate change adaptation policy process. As shown in Figure 8 on population density in Cameroon, the least densely inhabited areas are the dense humid forest zones (East and South). They are inhabited mainly by rural populations whose vulnerability we can only guesstimate by looking at their landlocked living areas and conditions, i.e. their overall poverty (SDSR 2006; UNDP 2011).

Lack of education is responsible for at least part of the local populations' difficulties in getting their issues on the government agenda. And when

these issues are submitted by NGOs or other civil society organizations they are often reinterpreted in political terms that do not serve the best interests of the populations truly concerned (CED 2010). The forest populations, thus, are obliged to accept poorly negotiated solutions that do not necessarily improve their capacity for climate change adaptation. Furthermore, competition between the growing urban majority and this rural population can cause conflict. Another factor in the forest zones is the arrival of large agro-industrial firms that limit access to species that were previously accessible to everyone, thus adding to the people's vulnerability.

5 Mitigation and adaptation policies as sources of synergy

The nature of the risks and the opportunities connected to the introduction of REDD+ and adaptation policies depends on the specific characteristics of the context in which they are applied. In Cameroon, the introduction of REDD+ policies offers numerous opportunities to impact the climate change adaptation process, despite the recognizable differences between the two mechanisms (see Table 1).

5.1 Evaluation of the risks between climate change mitigation and adaptation policies

5.1.1 REDD+, adaptation and the context of REDD+ governance

Considering the political approach, Ravindranath (2007) puts forth the idea that mitigation initiatives, even mitigation policy initiatives must not contribute to the vulnerability of ecosystems or agriculture. Mitigation policies should, however, include practices that adapt and improve people's resilience. To avoid conflict between mitigation and adaptation, mitigation policies for forestlands must not increase the vulnerability of other areas and other communities, even urban communities. Control mechanisms should be introduced to prevent vulnerability factors from drifting to other sites.

There is reason to be wary about potential REDD+ strategic options for Cameroon. A look at the present level of coherence between the options being considered brings out a certain incompatibility with other sectoral policies. There is also the fear that delays in establishing new institutions such as ONACC and the increase in legal processes are burdening the climate change policy process. The sectoral (legal, institutional, etc.) breakdown is also a problem. Difficulties

are often explained by the fact that there are too few consultation platforms that bring together the different government services, plus leadership conflicts and the inability to define the scope of responsibility. This, for instance, explained the crises that marked the beginning of the REDD+ process.

5.1.2 REDD+, adaptation and sustainable management of forest resources

Sustainable management of forest resources is central to the REDD+ program and to climate change adaptation in forestlands. There are two major problems: large agro-industrial firms that strip the forest communities of their land, and the continuing development of illegal forest activities. Land dispossession and restricted access to forest resources are evidence of the relation of these phenomena with the vulnerability of the forest populations (Oyono 2010; Ongolo and Karsenty 2011). REDD+ and adaptation measures offer an opportunity to meet the need for sustainable forest management. But if the procedure to establish sustainable management is not well executed, a poor adaptation process could actually increase the vulnerability of the forest population.

5.1.3 REDD+, adaptation and meaning for the rights of local forest populations

Strategic options connected to the definition of land and forest tenure for REDD+ can impede adaptation policies. This would be the case if Cameroon, in an effort to maximize carbon revenue through REDD+, made its forest and land regime stricter by restricting user rights. The State could also decide to 'recentralize' forest management, which would reduce preemptive rights and hurt community forestry. Along the same lines, the allocation of swathes of forestland

to carbon investors for conservation purposes could lead to the marginalization, and therefore increased vulnerability, of forest populations. This was the case when forest villages were located between two forest concessions or simply absorbed by them. Mention should also be made of a conservation policy option that led to the reduction of fuelwood supplies for urban areas. Many populations live off these areas. Prior to all else, a policy should be introduced to reduce vulnerability caused by a conservation policy of this type. One possibility would be to promote improved or low consumption cook stoves, or the use of alternative fuels. We need to rethink the relations that these two categories of people (rural and urban) have with the forests, and the externalities connected to the development context, by redefining entitlements (O'Brien et al. 2009).

5.2 Suggestions for increasing synergy between the mitigation policy and the adaptation policy

A study conducted in Ghana shows that crossing REDD+ policy recommendations with local adaptive capacity indicators can provide an interesting framework for learning about potential synergy between climate change mitigation and adaptation mechanisms (McFarland 2012). But Cameroon does not have a national REDD+ strategy. Further, since there are no studies on the vulnerability of the forest communities of Cameroon, no mention has been made, of course, of any adaptation strategy at either the national or the local level. Since there are no clear mitigation or adaptation policies, the only possibility is to adopt a forward-looking approach, which would have to be built on scattered political guidelines. Some policies are directly focused on climate change and forests, others indirectly.

5.2.1 Access to resources, sustainability of forest revenue and the development of local communities

A definition of land and forest tenure is needed to clarify access rights to resources and the basis for the redistribution of benefits and other forest income to respect the legitimate rights of the people involved. It will also provide the basis for understanding the real vulnerability level in the forest zones, which is still a problem in the Cameroonian context. Access to resources needs

to be controlled because of the magnitude of illegal and informal removal of forest resources in Cameroon (Cerutti et al. 2011).

Knowledge of the contribution of the forest communities' traditional practices to these informal activities will lead to an overview of the importance of these activities in community life. This knowledge would also be useful in establishing policies for informal forest activities that contribute to developing the climate change adaptation capacity. Guidance for the activities of the local forest populations would contribute to ensuring regular income or to the development of special models for decentralized forest management alongside the existing models (community and communal forests) whose limited application explains the reason for the development of informal alternatives.

Similarly, identifying ways to calculate carbon stocks could help the people concerned with REDD+ projects more accurately calculate the projects' potentials. Knowing how much income can be obtained from mitigation activities would allow them to plan investments and obtain the tools (money, education, technology, etc.) needed for the economic and social transformations that can satisfy the requirements of development. Further, NGOs strongly encourage the mobilization of REDD+ funds at the local level as a way to reduce the poverty of very low-income, forest-dependent populations (Brown et al. 2011). If we consider the Cameroonian government's aim to turn REDD+ into "a development tool that must help the country achieve the sustainable development objective that the government set for itself in the 'Growth and Employment Strategy Paper' (DSCE) and 'Cameroon Vision 2035' (R-PP 2012)", we can assume that poverty reduction through REDD+ could contribute to reducing vulnerability and improving the adaptive capacity of the forest populations and communities. Further, initiatives that could reduce poverty would contribute to reducing pressure on the forests by facilitating access to alternative solutions.

5.2.2 The growing role of national institutions

The mission of ONACC is to "monitor and evaluate socio-economic and environmental impacts and measures to prevent, mitigate and/

or adapt to harmful effects and risks connected to these changes” (article 4). This prerogative has made ONACC an essential player in the process of defining the fight against climate change. That MINEPDED is in charge of questions connected to climate change (R-PP 2012) facilitates the development of synergistic action. Within ONACC, government representatives from the various sectors use ONACC’s *conseil d’orientation* for consultations that can be valuable for both the mechanisms and help prevent contradictions and conflicts connected to sectoral interests. We are tempted to think that this is the very spirit of the text.

ONACC is working with the REDD+ Steering Committee, which was established by an Order dated 13 June 2012 that charges it with “making policy and strategy proposals concerning REDD+ initiatives.” The wording leaves leeway for interpreting the two mandates that refer to REDD+. The Steering Committee proposes policies for REDD+ and ONACC provides the monitoring and evaluation. It is interesting that no organization was given responsibility for monitoring and evaluating climate change adaptation in the past. This left ONACC as the institution that is officially responsible for the climate change adaptation policy.

5.2.3 Improvement of cost/benefit ratio

To reduce costs and increase benefits may require the creation of a better distribution/redistribution mechanism. With regard to costs, Cameroon has maintained the position it voiced in discussions on mitigation and adaptation at the international level, namely that costs should be paid by developed countries (MINEP 2009). Alternatives using local funding, however, would be welcome to avoid interruptions in activities caused by interruptions in external funding, e.g. the problem with international funding for the preparation of the NAPA. Local funding would ensure the continuity of the process. Article 11 of Cameroon’s environmental framework law instituted a special treasury account in 1996 called the National Environment and Sustainable Development Fund (FNEDD), which in itself is an opportunity. In the current situation, however, it is not possible to identify what part of the fight against climate change is paid from this fund.

With regard to benefits, REDD+ can only become sustainable if it has a clearly defined fair-distribution mechanism. Such a mechanism does not yet exist in Cameroon. Starting with the hypothesis that REDD+ is viewed as a development tool, the benefits of REDD+ could be (wholly or partly) managed as a resource for development projects designed to increase the resilience of the forest populations and help the ones already affected by climate change to adapt. The redistribution models for the RFA and the lessons that could be learned from them could be used as levers.

5.2.4 Other public policies connected to the synergy between mitigation and adaptation: Conditionality or cross-compliance policy

Socioeconomic and political conditions have a significant effect on vulnerability and adaptive capacities (Keskitalo 2008). When development policies are applied to forests they sometimes compete with or counter natural resources conservation and sustainable management policies. This explains the need to construct sustainable ones. The REDD+ policy options will impact socioeconomic conditions in the forest zones, in a context where the government’s priority is to fight poverty (Bele et al. 2011). Efforts to reduce poverty are levers that should impel the dynamics of mitigation and adaptation. Many ministries are working on these dynamics.

Regarding the policies, the strong divisions and the multidisciplinary and multistory character of adaptation policies suggest that integration and coherence may require recourse to compulsory cross-compliance policies. Through conditionalities, it will be mandatory for policies in sensitive sectors to include climate issues. They will become essential in efforts to go beyond the climate and forestry policies to seek synergy between mitigation and adaptation policies. This approach will, however, have to overcome difficulties mentioned earlier in this paper difficulties that are connected to the very strong sectoral divisions laid out by the Cameroonian government, to problems of leadership among the ministries and to the difficulties in mobilizing the resources needed for these reforms.

Hence, besides the forest policies *per se*, there are other sectoral policies that can serve the interests of climate change mitigation and adaptation. They can be found in programs and projects that provide the implementation framework and construct the synergies between the two mechanisms, e.g. the strategy documents, the national and sectoral programs, the support programs, the development plans, etc. The goals and (regulatory, economic and information) tools for the policies set out in the various documents reflect other policy options which can contribute to thought on synergy

between climate change mitigation and adaptation, options not covered in this paper. Adopting this position means turning climate change into a crosscutting issue that should be included in other sectoral policies whose implementation may be affected by this choice. But it is not a question of constructing a compulsory scoring grid or a reference framework for all sectors of life. The brief is to remain aware of the importance of the impact of climate change on certain sectors of public life and the implementation of policies in the most sensitive sectors.

6 Conclusion

The aim of this study is to give visibility to adaptation and mitigation policy processes and to assess the risks and opportunities that can contribute to building up synergy between adaptation and mitigation mechanisms in Cameroon, a country that does not yet have its own national REDD+ strategy, or any other strategy on adaptation in the forest ecosystem because of the nonexistence of a complete and reliable study on vulnerability. Thus, under the present circumstances, the criteria for the strategy or the policies cannot be used to support the creation of opportunities for synergy between mitigation and adaptation. In the present context in Cameroon, the only solution is to use scenarios based on feasible policy options that include specific facets of the forest sector.

The main lesson from this study is that there are numerous opportunities to construct synergies between mitigation and adaptation policies and that their construction could be envisaged accordingly.

Unfortunately, the context of governance may impede actions keyed to developing synergy between mitigation and adaptation policies. The context of governance draws on a sectoral model that leaves little space for building bridges between the different ministries, which explains the leadership conflicts. Another constraint is the slow

pace of the instruments and institutions working toward the climate change goals. Although these institutions are structured to create hope, they sometimes end up curtailing potentially beneficial initiatives. Similarly, the unreliable knowledge of the forest and carbon resources and the vulnerability of the forest populations make it difficult to formulate clear options for an adaptation policy. Last, the uncertainties about land and forest tenure – due to the conflictual overlapping of customary and positive law – bring out the need to make the laws clearer and thus allow for better planning. This conflict is taken up in the discussions on illegal and informal activities in the forest sector, where the difficulty of describing the relations between the forest dwellers and the forests is also discussed.

Nonetheless, a few ideas are emerging and can be used as the basis for the preparation of policies that create synergy between climate change mitigation and adaptation. Besides improving the context of governance, it will be essential to ensure the sustainability of forest-generated income through a precise definition of legal rights. Furthermore, one possible solution to the problem of coordination may be found in conditionalities. The sectoral policies, whose activities are vulnerable to climate change, may use conditionalities as important data in planning their strategies.

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International documents (legislation)

- United Nations Framework Convention on Climate Change
- Kyoto Protocol to the United Nations Framework Convention on Climate Change

National documents (legislation)

- Constitution of the Republic of Cameroon dated 18 January 1996
- Law no. 68-1 of 11 July 1968 establishing the forest regime for the Federated State of Eastern Cameroon / *fixant le régime forestier de l'Etat fédéré du Cameroun Oriental*
- Law no. 71-4- COR of 21 July 1971 establishing the forest regime for the Federated State of Eastern Cameroon / *fixant le régime forestier de l'Etat fédéré du Cameroun Oriental*

- Law no. 81-13 of 27 November 1981 governing forests, wildlife and fishing / *portant sur le régime des forêts, de la faune et de la pêche*
- Law no. 94-01 of 20 January 1994 to lay down Forestry, Wildlife and Fisheries regulations / *fixant le régime des forêts, de la faune et de la pêche.*
- Law no. 96/12 of 05 August 1996 on the Framework Law on the Environmental Management in Cameroon / *portant loi cadre relative à la gestion de l'environnement au Cameroun*
- Ordinance no. 74/01 of 6 July 1974 laying down rules governing land tenure in Cameroon / *fixant les modalités d'application du régime foncier et domanial au Cameroun*
- Ordinance no. 73-18 of 22 May 1973 establishing the national forest regulations / *fixant le régime forestier national*
- Decree no. 95/531/PM of 23 August 1995 laying down the procedure for implementing the forests system / *fixant les modalités d'application du régime des forêts*
- Decree no. 95/678/PM of 18 December 1995 to institute an indicative land use framework / *portant institution de ce plan de zonage*
- Decree no. 99/781/PM of 13 October 1999 laying down the application procedures for Article 71(1) of Forest Law no. 94/01 of 20 January 1994 governing forests, wildlife and fishing / *fixant les modalités d'application de l'article 71 (1) nouveau de la Law no. 94/01 du 20 janvier 1994 portant régime des forêts, de la faune et de la pêche*
- Decree no. 2005/0577/PM of 23 February 2005 to lay down the methods for carrying out environmental impact studies / *portant sur les modalités de réalisation des études d'impact*
- Decree no. 2011/2582/PM of 23 August 2011 on the protection of the atmosphere / *fixant les modalités de protection de l'atmosphère*
- Decree no. 2009/410 of 10 December 2009 on the creation, organization and functioning of the National Observatory on Climate Change / *portant création, organisation et fonctionnement de l'Observatoire national sur les changements climatiques*
- Decree no. 2011/408 of 09 December 2011 to organize the Government of the Republic of Cameroon / *portant organisation du gouvernement de la République du Cameroun*
- Decree no. 2008/2115/PM of 24 June 2008 On interprofessional minimum wages in Cameroon and Order no. 0021/MINTSS/SG/DRP/SDCS of 30 June 2008
- Order no. 222 of 25 May 2001 laying down the procedures for implementing the Permanent forests management plans / *fixant les procédures d'élaboration et d'approbation des plans d'aménagement*
- Joint Order no. 0520/MINATD/MINFI/MINFOF of 03 June 2010 establishing conditions for employing and management monitoring of revenue from forest and wildlife resources exploitation intended for the riparian village communes and communities / *fixant les modalités d'emploi et de suivi de la gestion des revenus provenant de l'exploitation des ressources forestières et fauniques destinés aux communes et aux communautés villageoises riveraines*
- Order no. 103/Cabinet Prime Minister of 13 June 2012 on the creation, organization and functioning of the steering committee for activities to reduce emissions from deforestation, forest degradation, sustainable management and forest conservation "REDD+" / *portant création, organisation et fonctionnement du comité de pilotage des activités de réduction des émissions issues de la déforestation, de la dégradation, de la gestion durable et de la conservation des forêts, "REDD+"*

CIFOR Occasional Papers present research findings that are important to tropical forestry. The contents are subjected to an internal and external peer review.

In the present-day context of climate change, decisions are taken with such uncertainty that policy-makers need to be informed about the opportunities and tools required to formulate result-oriented policies. This paper considers the issue by looking at synergies between political processes for climate change mitigation and adaptation in the Republic of Cameroon.

The countries in the Congo Basin are poor and vulnerable and, as such, suffer from the negative effects of climate change. Fighting this phenomenon has become an item on the countries' policy agendas. Processes, based on mitigation and adaptation measures, have been launched at various levels and paces in these countries to cope with the dynamics of a changing climate. But to study and implement mitigation and adaptation measures simultaneously is not enough. In a situation characterized by poverty and resource shortages, especially financial resources, to support a process that is already exceptionally slow, it is important to go further and consider the synergy between mitigation and adaptation. The principle described in this analysis is combined with thought on the best way to proceed, a way to encourage more thorough analyses and ensure *ex situ* integration and coherence between climate and development policies, and *in situ* integration and coherence within the climate policies.



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