# Recent evolutions of forest concessions status and dynamics in Central Africa

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#### **SUMMARY**

Forest concessions in Central Africa are being subjected to a combination of pressures from agribusiness investments, population growth and the informalisation of the domestic timber trade. This puts them at a crossroad. Despite REDD+, the forest sector is not a policy priority for governments whose ambition is to achieve emerging country status. This article takes stock of the forest concessions and management rules in Central Africa, the slow progress of forest certification, and the difficulties facing the FLEGT/VPAs process, and proposes a preliminary assessment of the impact of the log export ban imposed in Gabon since 2011. Examples are given of the mounting influence of Asian companies, and the growing concentration of large corporate interests. The concession regime must be restructured to include multiple uses and take better account of local land rights inside and outside the concessions. The legitimacy of forest concessions depends on their transparency, their strict compliance with laws and regulations, and their provision of social and ecological guarantees. Certification has been a lever for improving the practices and the self-regulation of certified companies. Recognising the public interest of certification would legitimate financial and non-financial incentives for companies to become certified, and international transfers may contribute to the implementation of such incentives.

Keywords: Central Africa, Congo Basin, forest concessions, logging, forest management, forest certification

# Récentes évolutions de la situation et de la dynamique des concessions forestières en Afrique centrale

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Les concessions forestières en Afrique centrale sont sujettes à un ensemble de pressions simultanées découlant du développement de l'agrobusiness, de la croissance de la population et l'informalisation croissante de l'exploitation du bois d'œuvre pour alimenter les marchés locaux. Les concessions forestières sont à la croisée des chemins. Malgré REDD+, le secteur forestier n'est pas une priorité politique pour les gouvernements de la région, lesquels visent «l'émergence» rapide de leurs économies. Cet article fait le point sur l'état actuel des concessions et les règles de gestion forestières en Afrique centrale, la difficile progression de la certification et les difficultés rencontrées par les processus FLEGT et les Accords de Partenariat Volontaires avec l'UE. Il propose également une première analyse des impacts de la mesure d'interdiction d'exporter des grumes prise par le Gabon. La montée en puissance des compagnies asiatiques et la tendance à la concentration des intérêts commerciaux est mise en évidence. Pour surmonter les défis croissants, le régime concessionnaire doit évoluer pour prendre en compte les droits et usages multiples des ressources et du foncier au sein et hors des concessions. La légitimité des concessions dépend de leur transparence, de leur strict respect des règles légales, et des garanties qu'elles peuvent fournir du point de vue de leur impact écologique et social. La certification a constitué un levier pour l'amélioration des pratiques et l'autorégulation des entreprises certifiées. La reconnaissance de la certification comme instrument d'intérêt public pourrait légitimer la mise en place d'incitations, financières ou non, pour que les concessions se certifient, et des transferts internationaux compensatoires pourraient contribuer à cela.

#### Evolución reciente de la situación y dinámica de las concesiones forestales en África Central

#### A. KARSENTY y C. FERRON

Las concesiones forestales en África Central están siendo sometidas a una mezcla de presiones procedentes de las inversiones de agroempresas, el crecimiento de la población y la informalización del comercio nacional de madera. Esta mezcla las pone en una encrucijada. A pesar de REDD+, el sector forestal no es una prioridad política para los gobiernos, cuya ambición es lograr el estatus de país emergente. En este artículo se hace un balance de las concesiones forestales y las normas de gestión en África Central, el lento avance de la certificación forestal y las dificultades a las que se enfrenta el proceso de AVA FLEGT, y propone una evaluación preliminar del impacto de la prohibición de la exportación de madera en Gabón desde el 2011. El artículo da ejemplos de la influencia creciente de las empresas asiáticas y la concentración cada vez mayor de grandes intereses corporativos. Es necesaria una restructuración del régimen de concesiones que incluya los usos múltiples

y que establezca mejores formas de tener en cuenta los derechos locales a la tierra, tanto dentro como fuera de las concesiones. La legitimidad de las concesiones forestales depende de su transparencia, de su estricto cumplimiento de las leyes y reglamentos y de su provisión de garantías sociales y ecológicas. La certificación ha sido una palanca con la que mejorar las prácticas y la autorregulación de las empresas certificadas. El reconocimiento del interés público de la certificación legitimaría los incentivos financieros y no financieros para que las empresas se certifiquen, y las transferencias internacionales pueden contribuir al establecimiento de tales incentivos.

#### INTRODUCTION

Forest concessions are an important tool for sustainable forest management (SFM), especially considering that the majority of forests in tropical countries are public (Sunderlin *et al.* 2008, Siry *et al.* 2015). Forest concessions for timber production have been the primary channel for allocating harvesting rights for tropical forests in developing countries and in several developed countries with temperate and boreal forests (Gray 2002).

The forest concession concept gained traction in the last decade and was introduced in highly forested countries such as Brazil (Karsenty et al. 2008) and Russia (Torniainen et al. 2006), where governments intended to use this regime to avoid leaving large tracts of forests under ambiguous tenure situations which facilitated appropriation through illegal (but often tolerated) deforestation. On the other hand, the increased population density in much of the rural tropical areas and the legitimate claims to forestlands often considered as public/state estates challenged the existence of forest concessions. Many analysts consider that concessions should be dismantled and replaced by community forests, which are supposed to provide more benefits to local populations (Counsell and Labrousse 2007, Alemagi 2010, Alden Wily 2011). But running a viable community-based timber enterprise is not an easy task, particularly in places where infrastructures are decrepit, transport costs are high, and markets are difficult to access, especially with competition from a growing informal sector that delivers (illegal) timber at a lower cost on the domestic markets (Ezzine de Blas et al. 2009).

Forest concessions are at a crossroad. Their legitimacy rests on their transparency, their strict compliance with laws and regulations, and the social and ecological conditions they can guarantee. Public policies promoting forest management and private certification schemes have improved – albeit unevenly – the quality of management of industrial forest concessions in many African countries (Samyn *et al.* 2011, Cerutti *et al.* 2011, Mégevand *et al.* 2013). However, in numerous concessions there is still some doubt about the effectiveness of the application of legally requested management plans.

To cope with structural changes of structure of exploited forests, the wood processing industry will have to innovate to avoid the erosion of financial profitability, which can already be observed in many concessions that comply with the new set of management rules. Moreover, the concessions will have to accept change that accommodates local land tenure claims and shares more benefits with local populations.

This article on Central Africa takes stock of the status and the evolution of large-scale industrial forest concessions that often cover dozens of thousands of hectares, are run by private or, less frequently, public companies, and produce timber largely for export. Some companies are vertically integrated with transformation units nearby the forest concession, some have their wood processing units located in towns, and some just produce logs.

The text provides an analysis of the legal, institutional and technical aspects, concessions regime, examines the strengths and the weaknesses of the current concessions regime, and discusses the possible evolution of this regime in Central Africa.

#### **METHODOLOGY**

This article is based on a report on forest concessions in West and Central Africa the author prepared for the FAO (Karsenty 2016). The recent information has been collected by five expert missions on the political economy of the forest sector in Gabon, Cameroon, Democratic Republic of Congo (DRC) and Congo (Rep. of) between 2013 and 2015. Most of the information was obtained through interviews with forest and fiscal administrations, concessionaires and NGOs and from non-distributable documents. For Gabon, first-hand information of the impact of the log export ban was collected on site in May 2015; this information has been completed by a FRMi study for the World Bank released by early 2017.

#### **RESULTS**

#### **Defining forest concessions**

According to the FAO Land Tenure Thesaurus (Ciparisse *et al.* 2003), a concession is a bilateral or unilateral legal act by which an authority grants a private or public personal use right or a privilege.

More precisely, Gray (2002) defined a forest concession as "a contract between a forest owner and another party permitting the harvesting (forest utilization contracts) and/or managing (forest management services contracts) of specified resources from a given forest area". However, it is useful to notice that concessions and especially forest concessions involve the idea of achieving also a public work or service, at the own expense of the concessionaire. For instance, preparation of forest management plans has been for a long time considered as a responsibility of the Government, through the forest service in West and Central Africa (and some Forest

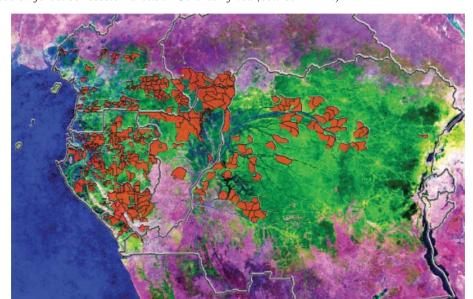


FIGURE 1 A glimpse on forest concession areas in Central Africa (source: FRMi)

Codes are still mentioning this), but this responsibility has been transferred to the concessionaires (except in Central African Republic), given the lack of capacity of the forest service and the companies' expected lack of confidence in the management inventories that would be performed by the administration. Likewise, social obligations of the concessionaires have gradually increased into the specifications; in Congo, the management plans of one major company embodied provisions to ensure the "food security" of his workers and their family. In that respect, the concession agreement is typical of the modern "public-private" partnerships by which public services obligations are devolved to private companies along with the privilege of an economic activity requiring government's authorization.

In Central Africa, forest lands are generally considered as "public", even though some countries such as Cameroon have a specific land status (called "domaine national") where the State is not the owner of the land, but a trustee administering the land for the benefit of the nation. This status is "by default", since a land without land title is considered as part of the national domain. For a land to become private, it needs a procedure called "immatriculation" (titling), often long and costly. Titling is open to individuals, companies, land councils or the State. A land titled to the name of the State is transferred to the "private domain of the State". The government can also decide to designate some forest to be "public domain", such as it is the case in Gabon and DRC for protected areas - even though, strictly speaking, the public domain should be put at the disposal of the public – which is not the case with most protected areas.

The forest legislation added another layer on the legal land status, by designating forests according to their planned uses. The instrument for such designation is the "gazetting" ("classement" in French). In an ideal scheme, all gazetted forests should form the "permanent forests", also called "permanent forest estate" or "domaine forestier permanent". Gazetted forests can be for production or protection.

The use of the two instruments, titling and gazetting, has rarely followed a clear line of distinction. Since forests were generally controlled by the forest services in virtue of the "forester regime" that restricted the use rights, the fact they were not formally owned by the State inasmuch they were not titled was often overlooked by the administration. Gazetting is used in Cameroon not only to allocate the forest in the permanent forest estate but also to title it for the private domain of the State (Kamto 2001). This is possible only because in Cameroon' legal framework, permanent forests are also private domain of the State – or of a local council; but such a situation is a matter of choice, and it is possible to foresee permanent forests under communal property, even if no country has gone this way so far.

### Importance of the industrial concessions in Central Africa

Central Africa has a long history with concessions given the fact the forest land is, formally at least, controlled by the government and because of the difficulties of implementing "modern" private property in societies where the communitarian dimension of land and forest tenure prevents the development of large-scale individual properties. Concessions in Africa have a long history and mixed records. Initially, under colonial era, European Governments granted concessionaires a given – and generally huge – area on which they received privileges to use natural resources as private assets, the trade monopoly on resources they gathered, and often the right to levy taxes and use hard labour. After the independences, the relationship between private actors and the State evolved into a more balanced one (Coquery-Vidrovitch 2001).

Today, there are similarities associated with the weakness of the states, the marginalization of some areas and the lack of infrastructure. Companies are in charge of various missions which are normally the responsibility of the public sector, from inventories of the forest to social services for the

TABLE 1 Synthesis of the area covered by concessions and areas certified in 2016–2017<sup>1</sup>

	Dense forests (COMIFAC official figures for 2008 <sup>2</sup> )	Concessions		Concessions with a manage- ment plan		Certified concessions (FSC or legal timber)		FSC certified	FSC certified as % of all conces- sions	FSC certified as % of concessions with a management plan
	Area (million ha)	Area (ha)	Nbr	Area (ha)	%	Area (ha)	% of all concess.	Area (ha)	%	%
Cameroon	6.4	7,058,958	111	5,071,000	72	3,409,593	48	1,130,301	16	22
Congo	14.3	12,600,221	51	4,671,691	37	3,061,243	24	2,478,943	20	52
Gabon	21	14,272,630	150	7,181,420	50	2,435,511	17	2,042,616	14	28
Eq. Guinea	1.9	740,000	48							
CAR	4.6	3,058,937	11	3,058,937	100	0			0	
DRC	98.9	12,184,130	80	1,976,6173	16	828,033	7		0	
Total	157	49,914,876	451	21,959,665	44	9,734,380	20	5,651,860	11	33

<sup>1</sup>Compilation of various sources (OFAC-State of the Forest www.observatoire-comifac.net/pages/monitoring\_system/concessions.php; PPECF/COMIFAC/KFW internal document; FSC database August 2017; AGEDUFOR internal document)

local populations. For a long time, concessionaires who received their logging rights from the Government have been aware that they had to accommodate with their social environment to avoid conflicts. The cornerstone of the interface between concessionaires and populations are the contract specifications (cahier des charges). Such specifications were automatically associated with the concession contract itself and embodied various requirements such as silvicultural and industrial obligations along with social ones.

The concentration of FMUs in the hands of large companies is reflected by figure 2.

In the DRC, the concentration is possibly more important since the Soforma and Sodefor groups have the same main shareholder, a Holding called NordSud Timber, based in Liechtenstein and the two groups have exchanged FMUs and industrial units in a recent past. Currently, the company that weighs the most in DRC is Cotrefor, which exploits as a contractor the permits attributed to Motema (owned by a Congolese high-ranking officer). Cotrefor-Motema partnership accounted for two thirds of the formal industrial timber production in DRC in 2016 (Agedufor-AFD 2017).

For Congo, several sources mention also strong commercial ties between Taman, CIBN and the large Malaysian company, Rimbunan Hijau.

If we consider these companies are partners, then we can identify a quartet of companies/partners with exploiting very large areas. Large foreign companies still dominate forestry in Central Africa. However, the last decade has been marked by the rise of African companies in Cameroon, Congo, Equatorial Guinea and the DRC. There are also a couple of significant Gabonese concessionaires. But, these companies are smaller than the foreign ones, and they are sometimes dependant of some foreign companies for their export (e.g. Congolese and Asian companies in the southern Congo).

#### Managing the concessions

Management plans are mandatory in all countries and their implementation should be seen as a prerequisite for keeping the concession. The reality is far from this principle, and it is very likely that a majority of non FSC-certified concessions (or certification of legal sourcing or timber, even though less stringent) do not implement fully their management plans, and many do not implement it at all.

#### Timber management

In African moist tropical natural forests, logging is highly selective, due to (i) the high diversity of species and their heterogeneity with respect to their processing aptitude and markets demand, (ii) the high transport costs, often dependent on road operations. In Central Africa, the volume of commercial timber extracted rarely exceeds 10-13 m³/ha on average for the area exploited annually (in some cases, concentration of commercial species lead to local harvests of several dozens of cubic meters per hectare), ... and is often around 4–8 m<sup>3</sup> (0.5 tree per hectare) – for instance in the DRC. This corresponds approximately to 4 to 8% of the standing volume (all species). The volume damaged is a function of the intensity of the exploitation and the implementation of Reduced Impact Logging (RIL) practices (even though RIL has only marginal effects when extraction rates are very low). In average, logging activities damage 7 to 10% of the surface area (Durrieu de Madron et al. 2000), which is significantly less than what has been observed in South-East Asia, for instance. On the other hand, the low volume harvested generally does not open the canopy enough to allow light-demanding species to renew their population. This is an issue, since most of the popular commercial species such as Sapelli (Entandrophragma

<sup>&</sup>lt;sup>2</sup>Source: De Wasseige et al. 2009.

<sup>&</sup>lt;sup>3</sup>Validated plans in August 2017. An additional 2.8 million ha of area under management plan is pending.

FIGURE 2 Area concentrated by main concessionaires in Central Africa (Source: author, based on various sources)

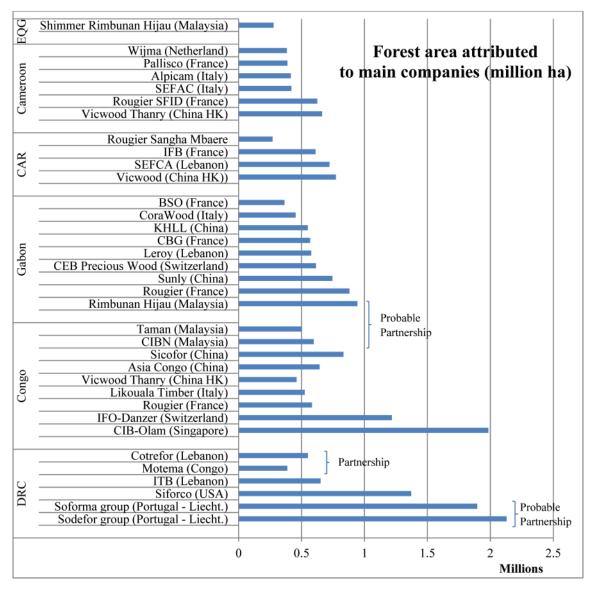
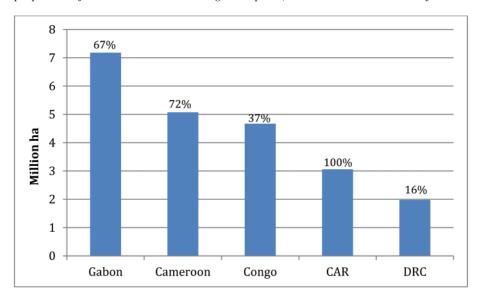


FIGURE 3 Area and proportion of concessions with a management plan (in million hectares and % of total attributed concessions)



cylindricum), Okoumé (Aucoumea klaineana), Ayous (Triplochiton scleroxylon) are light demanding, and this low rate of tree removal does not create favourable conditions for their renewal<sup>1</sup>. Management plans set targets increasing the number of species harvested and the volume extracted, but the actual harvest is still concentrated on a handful of well-known species. Few former less-used species have become popular in the past 20 years, an exception being the Okan (Cylicodiscus gabunensis), a hardwood being used in water-based applications, which has been substituted for the Azobé (Lophira alata) now in shorter supply.

In Central Africa, the two pillars of the silvicultural system are the Minimum Harvesting Diameter (MHD) and the cutting cycle. Management plans are based on a "management inventory" (sampling of 1–3% in general of all species) to be done during the three first years of the concession contract: the concessionaire is allowed to cut the Annual Allowable Cut (AAC, expressed in area but also on volume based on the exploitation inventory) during the "provisional management convention" of the concession granted for 3 years during which time he has to prepare the management plan before being granted with the full convention. Those inventories allow for estimating the annual possibility, the geographical sparing of the trees (to define the future AACs) and the diametric distribution of the population, needed for assessing the dynamic of renewal of the various species and set the MHDs.

Management plans are to be prepared by the concessionaire, except in CAR where a public structure prepares the plan, which is paid nonetheless by the concessionaire. According to several anecdotal feedbacks, the ownership of management plans by the concessionaire in CAR is, therefore, limited and questions can be raised about their full implementation. In Central Africa, management plans should cover the duration of the cutting cycle. These plans are reviewed each 5 or 10 years. In addition, short-term management plans are to be prepared for a 5 years period.

- Cutting cycles are of 25 years in Congo and Gabon, 30 years in Cameroon. In CAR, the duration is determined by the management plan, between 20 years (secondary forests) and 30 years (primary-like forests). Cutting cycles and rotations are aligned.
- MHDs are set by the management plan, after examination of the diameter structure of the commercial species. In any case, the national rule imposes an "administrative MHD", and the "management MHDs" cannot be set below the administrative MHD. The "Management MHD" can be set up to 120 cm if the species shows a deficit of number in the small diameters. In general, management plans in certified

- concessions set "management MHDs" 10 to 30 cm higher than the "administrative MHDs"<sup>2</sup>.
- The AACs are set in two phases. In Cameroon, Gabon, CAR and Congo, the concession is subdivided into 5-years blocs of almost equal volume (based on information of the management plan), and then divided into 5 plots of almost the same surface (the AAC).
- In Cameroon, CAR, and Gabon an AAC is open for 3 years (2 years in Congo) and then closed for the duration of the cutting cycle. In Central Africa, before the opening of an AAC, the concessionaires have to perform a 100% pre-harvest inventory (all the commercial species above 20 cm diameter), which will allow mapping the trees to be harvested.
- Based on exploitation inventories, lists of trees to be harvested and the volumes are proposed to the administration, which validates it (or not) and delivers the annual authorization of logging. In general, concessionaires should not harvest more than what has been agreed (with a margin of tolerance in some countries). In some management plans (certified companies), there is also a cap set on a voluntary basis for harvesting intensity by surface unit. In the Pokola FMU (CIB-Olam, Congo) it is 2.5 trees/ha and 45 m³/ha, based on 25 ha units. In CEB-Precious Wood (Gabon), there is a cap of 3 trees per ha.
- Regeneration rates are set by species or group of species. They vary from 50% to 75% of the stumpage volume. If the simulations following the management inventory suggest that species (or group of species) will not be recovered at the specified rate, the MHD must be raised.
- Post-harvesting silvicultural treatments are not in force in Central Africa. It is generally considered that the most important silvicultural actions are associated with the harvest itself, with the raising of the MHD when deemed necessary for the reconstitution. Removal of lianas and removal of so-called secondary species to favour young commercial trees are still controversial and not practiced, except in experimental devices. Enrichment plantations in logging gaps are considered as too expensive to manage over time.

Sustainability of harvests without silvicultural operations is, however, questioned in central Africa. Simulations over 2–3 felling cycles suggests some key commercial species (which are also light-demanding species) will not be recovered, even without considering the initial high volume called "bonus" derived from the exploitation in primary-like forests (Karsenty and Gourlet-Fleury 2006) and their volumes will slightly decrease over the felling cycles – without the species being threatened. The traditional response would be to raise

<sup>&</sup>lt;sup>1</sup> In many dense forest with closed canopies, inventories show that light-demanding species, although numerous in mature trees diameters, are scarce in the smallest diameters classes, announcing a change in the forest composition.

<sup>&</sup>lt;sup>2</sup> For more details, see http://www.atibt.org/download/i/mark\_dl/u/4012517735/4612072401/Manuel\_ATIBT\_4e\_volet\_certification.pdf (in French).

the MHDs of such species, but it would create important financial troubles for the companies. On the other hand, given the extremely selective logging practiced in Central Africa, many trees potentially marketable remain untouched and it is likely the market demand for timber will evolve (along with the processing technologies) and domestic markets will develop over the time of 2–3 felling cycles (50–60 years and more), hence the logging characteristics (diversification of exploited species). Therefore, the issue of sustainability of the best current practices remains an open question.

#### Fauna management

Management of the fauna is an issue more and more emphasised in the management plans, especially for certified concessions. Some studies concluded that fauna (such as elephants) were better off in concessions in Northern Congo than outside the concessions (Stokes *et al.* 2010). Management plans should contain provisions for the management of the biological diversity, the protection of endangered species and the sustainability of wild meat resources consumed by local populations as a major protein source.

In certified concessions the management plans contain provisions for participatory zoning of the hunting areas, especially with indigenous people who rely strongly on wild meat and are allowed to practice their traditional hunting activities (except in areas were any hunting is prohibited). Rules are established for preventing hunting by outsider (such as control of the log trucks, closing of the forest roads not in use, prohibition of road traffic at night, etc.). The plans contain also provisions for monitoring of the dynamic population of large mammals and a follow-up of the impact of the hunting practiced by local populations.

#### **Employment**

Our estimates, based on interviews with sub-regional officials and the private sector, indicate that concessions and the wood processing industry provide direct formal employment to over 40,000 people in Central Africa, The breakdown is as follow: 11,500 in Cameroon, 10,650 in Gabon, 7,500 in Congo, 6,000 in DRC, 4,000 in CAR. No figure is available for Equatorial Guinea, but a reasonable estimation would be around 2,000. To this figure, add indirect formal employment in transport, port handling, and other flexible activities, which can be reallocated to other commodity chains. For Cameroon, Cerutti *et al.* (2016a) estimated the existence of 23,000 of such permanent formal jobs related directly and indirectly to the timber activity.

The informal sector is likely to provide many more jobs in populated countries such as DRC and Cameroon, according to estimates by Cerutti and Lescuyer (2001): more than 45,000 jobs in Cameroon, up to 25,000 permanent jobs in DRC (Lescuyer *et al.* 2014), and probably many more if nonpermanent jobs are included. One unique trait of jobs in the industrial timber sector is that they are among the rare formal activities available in remote and economically marginalized areas (the forest zones), and target non-skilled people. It is estimated that one permanent job in Central Africa supports 10–12 relatives.

#### Other social dimensions

With the relative democratization of West and Central African countries in recent years, the multiplication of NGOs and the importance given internationally to the fate of forest-dwelling populations, the social dimension of the specifications now tends to prevail. Typically, specifications contain provisions for delivering social investments benefiting local populations such as building and/or equipping schools and healthcare facilities, building local roads and bridges to facilitate access to villages, drilling wells, and supplying building materials to populations. In some cases, provisions are more extensive and not only benefit local populations but also provincial authorities, local units of ministries in charge of forests, and sometimes the central ministry itself.

Relations between forest companies and local populations are often subject to conflicts, but the picture given by damning reports is often one-sided and the issue may not be as simple as once thought. The creation of a forest concession also used by local populations for agriculture, gathering, hunting, fishing and other practices is certainly a recipe for trouble. Yet, the arrival of logging companies is often hailed – above all by local populations themselves – as a significant economic opportunity in remote and landlocked areas. Potential benefits include direct and indirect individual employment opportunities and a range of socio-economic benefits to be negotiated with the company on a collective basis. Demands and expectations of local populations usually cover the following elements (CED 2008):

- Medicine and equipment of healthcare centres;
- Contribution to local education through building or funding schools;
- Employment and training for young men from nearby villages;
- Distribution of food and beverage, frequently referred to as *cadeaux* (presents);
- Construction or maintenance of roads; and
- In some cases, provision of additional public infrastructure such as electricity and wells.

Several large Central African concessions have reached agreements with conservation NGOs to enrich management plans with a section on wildlife management that includes measures deemed "conservative and repressive" by Doucet *et al.* (2002), such as hunting management plans with authorization to hunt on foot in the vicinity of settlements of forestry employees, the ban on hunting in work places and on bushmeat transport, etc.

#### Disappointing experiences with log export bans

Partial or total log export bans (LEB) have been introduced in several countries. Cameroon and Congo allocate log export quotas to companies, but the control of such quotas is not strictly enforced, especially in Congo. On the other hand, Gabon instituted a full log export ban in 2010, and it is enforced.

- In Cameroon, the "traditional species" (generally redwood) must be transformed within the country, but the main species harvested, Ayous (*Triplochiton scleroxylon*), can be exported as logs against the payment of an extra tax. In 2009–2010, the government temporarily allowed the log exports of traditional species to boost exports. Today, this authorization no long applies and around 1/3 of the industrial log production is exported as logs. Quotas of log export rights for Ayous and Azobé (*Lophira alata*) have been introduced, but the allocation of these quotas is discretionary and entails governance issues.
- In Congo, the concessionaires are requested to process locally at least 85% of their log production. This obligation is respected by the certified companies, but not by most of the other companies. In 2010, the government authorised the transferability of the implicit 15% quota of authorized log exports. But the public authorities find it difficult to manage this system because of the malfunctioning system of information sharing between the various services of the ministry in charge of forests and the custom services. In the last years, around 35% of the log production has been exported as logs (more than double the 15% quota).
- In Equatorial Guinea, a presidential decree was issued in 2007, prohibiting log exports. After the issuance of the decree, all the concessions were cancelled and only short-term permits were delivered. Production plummeted, from more than 500,000 m³ in 2007 to 13,700 m³ in 2009 (see fig 4). By the end of 2008, the presidential decree was abrogated *de facto*, and log exports resumed. The prominent company, Shimmer International, a subsidiary of the large Malaysian company

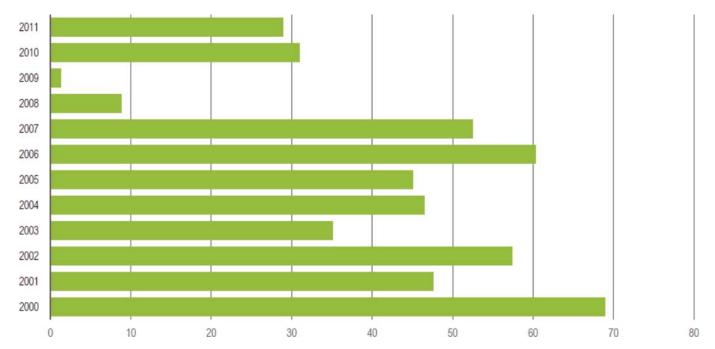
Rimbunan Hijau, returned to the forest sector to export logs again. Certified companies (certification of legality) are allowed to export up to 50% of their production. The others have to pay 5,000 FCFA (USD 0.85) per cubic meter for log exports. In 2013, 11 companies shared 740,122 ha, structured as 48 concessions (which are very small areas).

The 1997 Forest law of Equatorial Guinea caps the production at 450,000 m<sup>3</sup> annually, a limit that clearly was not respected up to 2008. Since that time, the production forest-lands (Bosques Nacionales) have diminished substantially and the government reduced them from 1.67 million in 1997 to 740,000 ha in 2013, as the oil production was increasing.

- In CAR, the forest code requires concessionaires to remain operational for at least 3 years and to process at least 60% of their production. A subsequent Finance Law raises this threshold to 77%, but the law is barely, rarely enforced.
- In the DRC, only mill owners are allowed are allowed to export logs, and may not export more than 30% of their production. Here again, the law is poorly enforced

Log export bans for the most valuable species have an economic cost, when specific qualities of logs – usually the highest quality, but also low-grade timber in demand as logs on Asian markets – are processed rather than exported as is. The economic cost is generated by low processing efficiency which causes some processed products (sawnwood and plywood) to lose economic value compared to their potential selling price as logs on the international market (opportunity

FIGURE 4 Evolution of the timber production in Equatorial Guinea (thousands of cubic meters) (Source: WRI – Atlas forestal interactivo de la República de Guinea Ecuatorial)



cost). This difference in relative prices derives from the strong demand of more efficient sawmills abroad, struggling to secure their supply of logs becoming more and more scarce. On the other hand, not all local processing entails a loss of added value, as there are in Central Africa efficient plants able to fetch high prices for their productions. In that respect, log export bans can produce perverse incentives since they incite logging companies to acquire poor processing equipment simply to comply with the law, as was stated in a recent study on Gabon (World Bank/FRMi 2017). And the impossibility to export tends to decrease log prices on the domestic market, thus allowing inefficient sawmills to remain competitive thanks to the low price of the raw material (as long as the timber resource can meet the needs of industry in the country).

What varies also is the income distribution. With a higher volume of export logs, a greater part of the forest rent goes to the Public Treasury, since taxation is heavier on logs than on processed products. Under a log export ban, the fiscal receipts drop (see the Gabon case in the next section) but governments hope there will be more employment, which is not systematically happening (again see Gabon case).

Gabon's recent experience with the log export ban: facing a logjam

In 2010, the Government of Gabon decided to ban log exports as of 2011. This was quite surprising, since Gabon was the largest log exporter of Africa, and was not well known for its industrial skills. The impact has been significant on the forest sector. Timber production dropped sharply and dramatically. The usual production figures for Gabon (source: ITTO) were around 3.2 to 3.5 million m³, the 2012 production was just 1.7 million m³ and the 2015 figure is likely to be around 1.5 million m³ (World Bank/FRMi 2017) The profitability of the timber activity overall, turned negative, since the financial margins were linked essentially to log exports. Therefore, the

perimeter of profitability of logging shrunk, and several concessions stopped or reduced their activities, especially if they did not have enough processing capacity.

Almost all the companies suffered financial losses up to 2013. Through restructuring, high international log prices for the African timber, and an active domestic market for highquality logs (for peeling), a handful of companies became profitable again in 2013-2104, but had to absorb the losses of the previous years (debts) which depressed their investment capacity. New sawmills (and some peeling units) have been built, thereby raising the installed processing capacity (input) of transformation to 2.6 million m<sup>3</sup>, which means that overcapacity will remain until log production reaches its earlier levels. The employment, according to figures from the Ministry of Forest Economy, is slightly above the pre-log export ban situation: 10,650 employees in 2014 against 9,588 in 2009 (World Bank/FRMi 2017). But this accounts only for direct employment, without factoring in the indirect employment (log transport, port facilities. . .) that has been lost in the meantime (probably several hundreds, but there are no figures available). Fiscal receipts, essentially based on taxation of log exports, dropped dramatically: although the forest taxes (area, felling and export taxes) yielded in the past around 40 billion FCFA on average (USD 65 million, and even 75 million in 2009), in 2014 the "Direction Générale des Impôts" provides the figure of 7 billion FCFA (USD 12.5 million) only (World Bank/FRMi 2017).

The government expected all the logs under the export ban to be transformed into plywood, veneers and sawnwood – or into furniture. But the international competitiveness of those Gabonese processed products is limited, as Gabon has relatively high production costs (wages, port handling...). In addition, given the narrowness of the domestic market, the opportunity for producing and commercializing by-products is also limited, and overall wood recovery rates are not

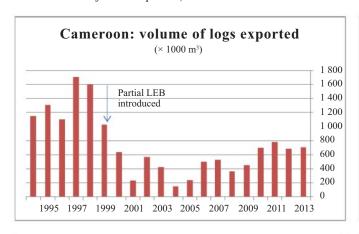
#### Box 1: The opportunity cost of the log export ban

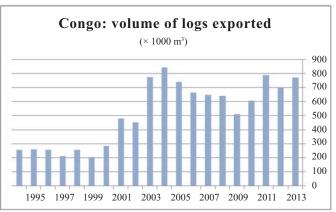
The average declared FOB price of Sapelli sawnwood exported from Cameroon is listed at €605 per m³ by ITTO-Market News Service in July 2015). The FOB price for Congo Basin Sapelli logs was listed as €320 per m³ for "B" quality by ITTO-MNS at that same time (Sapelli cannot be exported as logs from Cameroon). The recovery rate in simple sawmills (i.e. without drying facilities or industrial carpentry for by-products re-utilization) is 36% on average, which mean one needs 2.78 m³ of logs to produce 1 m³ of sawnwood. This also means that the *log equivalent value* of exported sawnwood is €218 [sawnwood price / input volume of logs], to compare with the actual FOB price of €320 for logs exported from, say, Congo. Even though the sawn log was of the lowest commercial quality (BC/C, listed at €240 exported as logs by ITTO), there would be an opportunity cost of €22 [€240 minus €218], without accounting for the energy needed to run the sawmill³.

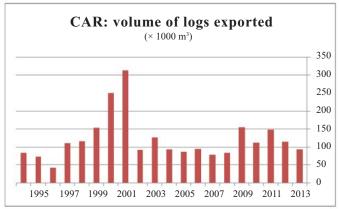
In other words, Sapelli logs which have been processed in these mills could have been exported for a minimum of 6664 and up to 6886 (B grade), instead of the 600-610 value yielded by the export of 1 m³ of sawn Sapelli. A recovery rate of 52% would be needed to formally nullify the opportunity cost of exporting sawnwood rather than logs, without accounting for the energy and the depreciation of machines used. By marketing by-products, wood processors can increase the overall recovery rate (even though the value of by-products does not equate that of the main product) and earn more money by transforming rather than importing logs. Obviously, the reasoning is even more relevant for those wood processors focusing on "non-commodity" productions, such as furniture. In any case, one can guess that, given the heterogeneity of the timber industry, a total log export ban generates opportunity costs for most of the less efficient wood processors.

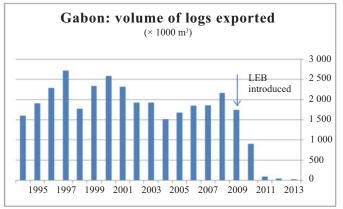
<sup>&</sup>lt;sup>3</sup> Some companies obtain high recovery rates on the main products by selecting only the highest quality logs for processing. In this case, processing efficiency would be higher, but so would be the opportunity cost associated with logs which are not exported.

FIGURE 5 Log exports by Central Africa's countries (Source: author's compilation of various sources. LEB = Log Export Ban, CAR: Central African Republic)









progressing. In addition, in 2010 the government pledged to create a 40 billion FCFA (USD 65 million) fund to support investments in processing but has not yet done so.

There have been significant changes in the ownership of the concessions. Many middle size players whose activities were based on log exports left the profession or had no choice but to supply large wood processing units at lower prices. Some Asian newcomers took over existing companies or decided to invest in processing facilities in the newly created Special Economic Zone (free of tax) of Nkok<sup>4</sup>. On the other hand, the Olam company, which is associated with the government for running the Special Economic Zone devoted initially to timber, decided to retire from the forestry business and sold its business to a Chinese company.

#### DISCUSSION

#### A lower policy priority

Forest concessions and the timber sector in general have received a lower policy priority in the last 5–10 years in the

region, in spite of REDD+ (or due to the declining expectations vis-à-vis this scheme). In Central Africa, economic growth is associated largely with the extractive industries, and to a lesser extent to the large-scale expansion of perennial crops, such as palm oil trees, rubber, wood and cocoa. Mining permits (exploration and exploitation) have a legal (and political) priority over forest concessions. Many concessions are overlapped by mining permits, causing difficulties to follow management plans and, in some cases, abandonment of certification. Governments are also aggressively promoting agri-business, often at the expense of the concessions – as in Cameroon, where the Government balks at signing the gazetting acts for incorporating all the concessions in the Permanent Forest Estate (Ongolo and Karsenty 2015).

One part of the concession forest sector in Africa is more and more "externally driven" in terms of ecological and social norms, because of the concern of Western consumers and public opinion about the fate of tropical forests in connection to global climate change. This creates incentives to raise the environmental standards of the global forest industry, and favours large scale concessions that can cope with the stringent requirements embodied in legal certification and log

<sup>&</sup>lt;sup>4</sup> Fiscal privileges include a 10-year exemption from corporate tax and another five years at a 10% tax rate. There is no customs duty for 25 years for imported materials and the export of manufactured goods. The companies are exempt from VAT for 25 years and will receive a 50% discount on their electricity costs. The benefits also include free transfer of funds and flexible employment regulations for foreign workers.

3500 Gabon: log export ban entailed a drop in the production, and overcapacities for wood processing 3000 Cumulated 2500 wood processing capacities 2000  $\times$  1000 m<sup>3</sup> Transformation gap (overcapacity) 1500 Total Industrial Roundwood Production Log exports 1000 Sawnwood exports (RDWD eq.) Veneers exports (RDWD eq.) 500 Plywood exports (RDWD eq.) 0 2008 2009 2010 2011 2012 2013 2014

FIGURE 6 In Gabon, the log export ban entailed a sharp drop of the production and overcapacities for wood processing (data: ITTO Annual Statistics On-Line)

(Conversion factor adopted for "roundwood equivalent": sawnwood : 2.7 m³; veneer: 1.8 m³; plywood: 2 m³)

tracking, sustainable forest management certification, social care for local populations, and significant fiscal contribution.

This capacity of certification to improve the quality of forest management in spite of the poor governance generally surrounding the forest sector, confirms the hypothesis of Cashore *et al.* (2004) that certification may be, to a certain extent, a substitute for ineffective public policies. On the other hand, this can squeeze out small operators, who often become, or remain, "informal" to avoid overregulation and the related corruption. In countries where the potential for domestic markets is low, producers face strong competition from other countries, corporations and business models. Concentration and restructuring of the export market on the one hand, and fragmentation of the domestic market on the other, seem to be the current trend in the logging industry of the Congo Basin.

### The thrust of Asian companies and non-European markets

The markets for African timbers have profoundly changed during the last 15 years. China, and increasingly other emerging Asian markets are replacing the traditional western outlets, and especially the EU market. The result is that Asia is gradually taking over from Europe, and most of the area

and the industrial production are now in the hands of Asian companies (Karsenty 2010). Since profitability is low for companies that comply with the regulations, many European companies have sold their holdings to Asian companies which are sometimes less concerned about regulations and have more effective trading networks, with buyers advancing up to one third of the cost of filling their contract. This is also why forest management certification has not been further developed, even though some newcomers in Gabon (such as the Chinese KHLL, which took over Olam-Bois concessions in Gabon) claim they are interested by certification. Given that Asian companies often re-export semi-finished products made with African timber for the European or US market, these companies are considering the need to, at least, obtain legality certification to facilitate re-export.

Almost all "primary" or "primary-like" productive forests that could be exploited within the "perimeter of profitability" (depending mainly on transport infrastructures) of the forest-land in Central Africa disappeared around 2010. All the forests have been more or less "secondarised" meaning the "primary forest rent" has been largely dissipated by the first felling cycle. As a consequence, profits are less than they have been in the past and the industry has started to restructure to adapt to the new availability of commercial species.

Country	Name of the company	Successive owners	Current owner
Congo	Compagnie Industrielle des Bois (CIB)	Initially French, then German, then Danish, then Asian	Olam (Singapore, with majority Indian shareholders)
Congo Cameroon	Thanry-Congo Thanry-Cameroon (In Gabon CEB-Thanry was taken over by Precious Wood – Switzerland)	French, then Chinese	VicWood (HK)
Gabon	Société des Bois de Lastourville (SBL)	French, then Chinese (2014)	Sun Company
Gabon	Leroy-Gabon, POGAB	French, then Portuguese, then Chinese, then	Legal conflict between the former Chinese owner and Ghassan Bitar (Lebanese) who bought Plyrosol, the factory in France
Congo	SOCOBOIS	German, then Chinese	Asia-Congo Industries

TABLE 3 Most significant change in ownership, from European to Asian company

Unlike what happened in South-East Asia, where relative homogeneity of stands in dipterocarp forests allowed the commercial species to be grouped under well-known names (e.g. Meranti), and harvests were intense,, there are many potentially marketable species left in the logged forests of Central Africa. Important investments in processing and marketing will be required to re-create opportunities for a new economic rent, but the "insiders" (current concessionaires) are generally not wealthy enough to finance this investment and there is a big question mark about potential "outsiders" willing to invest in Africa's forest sector.

As for trade, timber exports to Asia and Middle East are increasing, at the expense of the EU. In 2009, Cameroon exported to the EU28 almost twice the volume (Roundwood equivalent) it sent to Asia, by 2015 the volumes exported to both areas were almost the same (FAO/CIFOR 2016). In 2015 Gabon exported twice more, in volume, of processed products to China than to the EU. And for Congo, the volume exported to China was, in Roundwood equivalent, 550,000 m³ in 2015 against 430,000 m³ the same year for the EU28 (own calculations based on UN Comtrade statistics).

# FLEGT/VPAs initiatives and private certification<sup>5</sup>: from complementarity to competition?

Along with deforestation, the legality of timber entering the world market has been the topic at the top of the tropical forestry agenda for some years. Through the Voluntary Partnership Agreements (VPA), the European Union is offering to help producer countries correct their legal systems, reinforce their monitoring capacities, and, the decisive step, ensure independent certification of national systems of legality verification so that timber exported to the European Union would be entitled to benefit from Forest Law Enforcement, Governance and Trade, or FLEGT, certifications, thus

guaranteeing European importers that that they are putting legally harvested timber onto the market. Since March 2013, the Timber Regulation of the European Union (EUTR) requires importers to exercise due diligence to ensure that the timber that they want to import presents no significant risk of illegal production. This has led to added constraints on the players in the supply chain, to be overcome by buying tropical timber with FLEGT certifications, whenever available.

Although six countries (including five African nations) implement the VPAs, only Indonesia has, so far, proved able to perfect a national system of verification and traceability that is deemed sufficiently watertight to allow for the emission of the first FLEGT authorisations in 2016. This achievement poses a great challenge to the African exporters who may lose market shares in the EU if they cannot offer their clients FLEGT-licensed products soon.

The FLEGT program and the VPAs proposed by the EU are facing huge difficulties in Central Africa. The difficulty of ensuring and verifying all the timber production at the national level has been underestimated both by the EU and by the African governments who have, in some countries, pushed for also including also the domestic market in the scope of the VPA agreements (and not just exports to the EU), a surely excessive ambition, even in a mid-term perspective.

For their part, firms for which Europe is still a major market have adopted private systems. Other legality certification schemes (OLB, TLTV, VLO/VLC...) have been put on the market since the entry in force of the EUTR. They are less costly and somehow compete with "good management" (e.g. FSC) certification. Professional associations have appealed to the national authorities in charge of applying the EUTR in different EU countries to accept that there are negligible risks of illegality when importers put timber onto the market with such private certifications. But the European authorities baulk

<sup>&</sup>lt;sup>5</sup> FSC is the only scheme certifying good forest stewardship so far in Central Africa. There are other schemes (PEFC/PAFC) but with no clients as yet.

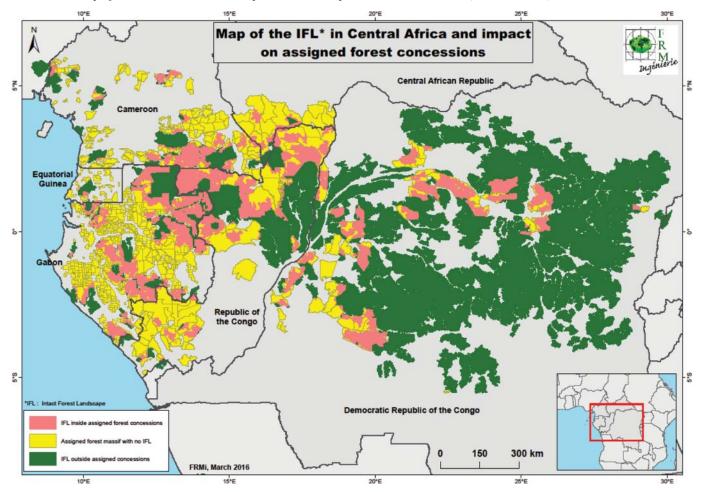


FIGURE 7 Map of the Intact Forest Landscapes and their impact on the concessions (source: FRMi)

at adopting a solution of this kind, which would weaken the efforts within the VPA framework to reinforce national institutions and improve governance. In particular, this would acknowledge the fact that private certification systems, paid for by the companies themselves, could perform as well as the ambitious – and very expensive – FLEGT program that has become the much-trumpeted cause of the European Commission (EC) for rescuing the tropical forests.

In addition to the reluctance of the EC to accept private certification of legality as sufficient for being FLEGT-licensed if national schemes are not operational, it has been suggested (e.g. Hinrichs and Van Helden 2012) that full implementation of public forest regulations, thanks to FLEGT, would be a significant move toward SFM, given the provisions incorporated in the new generation of forest laws, which request high standards forest management plans and social specifications aiming at sustainability. This raises the question of precise criteria for assessing SFM beyond the general principles proposed by the certification schemes (Karsenty and Gourlet-Fleury 2016). If countries, considering or having signed VPAs are able to obtain FLEGT licenses in the coming years, the added value of forest certification, such as certification by the FSC, may be contested by European timber buyers who are often reluctant to pay premium prices.

#### The thorny issue of Intact Forest Landscapes

Internal discussions within the FSC tend to focus on the Congo basin, with pressure exercised to strengthen the requirements for the industrial concessions, especially with the introduction of the "Intact Forest Landscapes" (IFL) concept, pushed notably by Greenpeace, in spite of the scepticism of scientists vis-à-vis the capacity of this concept to capture critical issues (fauna condition, resilience of the forest after selective logging...) for determining which are the most biodiverse and fragile forests (Haurez *et al.* 2017).

The FSC General Assembly to be held in 2017 may impose a logging ban on "Intact Forest Landscapes" that could force some FSC-certified concessionaires having such landscapes within their concessions to leave the FSC for the PEFC/PAFC, an alternative currently pushed by stakeholders. FRMi has produced a map crossing concessions and "Intact Forest Landscapes" in Central Africa. It shows the magnitude of the issue (see fig. 5).

Concessionaires believe this will practically prevent exploitation under FSC certification in many forests in Congo, Cameroon and Gabon. In Congo, 42% of the "Intact Forest Landscapes" are located in the concession areas, 54% in Cameroon, 63% in Gabon and 74% in Central African

Republic. Consequently, some of them consider abandoning the FSC and look for a PEFC alternative (through the *Pan-African Forest Certification* scheme, PAFC, initiated in the beginning of the 2000s but without client, and taken over some years ago by the PEFC). But the potential disaffiliation of several large companies with the FSC might have a significant impact on their exports to Europe and North America, since opponents to industrial concessions will certainly claim that the PEFC/PAFC certificate does not provide the same environmental guarantees, as they do not consider the "Intact Forest Landscapes".

# Unlikely benefits of REDD+ for rewarding better management of forest concessions

REDD+ will probably not benefit the forest concessions, despite the "Sustainable Management of Forest" eligibility activity associated with the "+" of REDD+. Increase of the minimum diameter of cutting, and, to a lesser extent, extending the cutting cycle can increase carbon stocks but the opportunity costs will be significant for the companies. Given the current difficulties with the carbon markets and the low prices of carbon credits, prospects are limited. It is also unlikely that the so-called "voluntary market" could be an outlet for the carbon credits that might be made available by concessionaires through "REDD+ projects", given the mixed perception of the industrial logging (and constant NGO campaigns against this activity). In addition, non-permanence is a serious issue, given the frequent changes in ownership of the concessions, and the risk of forest conversion.

Moreover, the second "D" of REDD+ (avoided degradation) will well pave the way for "conservation concessions" that might be remunerated, rather than for "improved logging concessions": although selective logging is not deforestation, it could be considered as a cause of degradation (even though potentially reversible). Thus, turning logging concessions into conservation concessions could qualify them as "avoided degradation" activities.

# Consolidating the positive impact of forest certification through public incentives

In a context of relatively ineffective public forest policies, certification of "good management" has been a game-changer for six companies operating in Central Africa (another company, Decolvenaere, decided to abandon the FSC in 2015). All of them (but the CIB, which headquarters are in Singapore) are EU-domiciled companies with large concessions, essentially targeting Western markets. Certification pushes companies to self-regulation with respect to existing legal

norms, since a negative audit would mean jeopardizing their market shares in some EU markets. No new concessions have been certified during the last few years, which brings up the question of the potential for FSC certification to expand beyond the so-called "early-movers". Not all certified companies have reached the same level of achievement. Some of them have reached an impressive level with respect to social criteria, rights recognition and the sharing of benefits with local communities. "Success stories" in Gabon and Congo are often cited (see for instance Hopkin, 2007), but these achievements are fragile since the related costs are often questioned by the shareholders of the international owner groups.

The significant cost of investing in certification is not always compensated by a price premium (which sometimes does not exist). Several studies have attempted to calculate the financial cost of certification for companies operating in tropical areas. A 2015 WWF study stated that "most of the studies provide only a lump sum figure without specifying the cost breakdown or cost drivers, and results vary widely" (Breukink et al. 2015, p. 7). These costs are estimated at around €7.63 for a sample of large-scale certified tropical forests. But costs are embedded in business operations, which makes it difficult to isolate the specific costs of certification, especially if companies use the certification process to put their activities in full conformity with existing regulations, often already demanding but rarely fully implemented. Costs are generally expressed per cubic-meter rather than in hectares to take into account the existence of fixed costs, which may change the financial weight of certification operations.

A 2017 study by Oréade-Brèche for the PPECF<sup>6</sup> attempted to evaluate the specific cost of FSC by distinguishing notably the "legal compliance" stage and the "certification" stage. The specific cost of the certification stage is estimated at around  $\[mathebere]$ 2.2 per m³ per year for a 500,000 ha concession already fully compliant with existing regulations<sup>7</sup>. This is to be compared with the weight of the area fees (a fixed amount over years, that is easy to plan, collect and monitor) per cubic meter<sup>8</sup> which varies between  $\[mathebete]$ 2.18 (Gabon) and  $\[mathebete]$ 6.5– $\[mathebete]$ 32 (Cameroon, average of  $\[mathebete]$ 9.6). Certification is considered to have a positive impact and to contribute to the public interest, and these figures suggest that cutting the area tax to the equivalent of  $\[mathebete]$ 2.20 per cubic meter would cover the average specific costs of certification for an already legally-compliant company.

Such a fiscal sacrifice for the government could be offset by annual financial transfers from REDD+ funds, either those managed by the World Bank Group or, possibly, the Green Climate Fund. A simple calculation (see Table 4) shows that close to full compensation for the cost of certification on the 5.47 million ha currently under FSC certification would cost

<sup>&</sup>lt;sup>6</sup> Programme for the Promotion of Certified Forest Management in the Congo Basin, on behalf the PPECF/COMIFAC (Central African Forests Commission).

<sup>&</sup>lt;sup>7</sup> For a non-compliant company, the cost of upgrading to full legality may be the double.

<sup>&</sup>lt;sup>8</sup> The conversion of the area fee to volume is given by the simple formula: [(area fee per ha) / (volume harvested per ha)] x [rotation length]. We have adopted a conservative value of 8 m³ of commercial volume per hectare, which reflects more or less the current practices in Gabon, Cameroon and Congo.

	Certified area (ha)	Cutting cycle (years)	Exploited annually (ha)	Annual theoretical production (m³)	Specific cost of certification (€)	Mean cost/ha certified
Gabon	2,042,616	25	81,705	653,637	1,438,002	
Cameroon	1,130,301	30	37,677	301,414	663,110	
Congo	2,478,943	30	82,631	661,051	1,454,313	
Total	5,651,860			1,616,102	3,555,425	€ 0.63 [XAF 413]

TABLE 4 Specific cost of certification to be compensated (hypothesis of an average 8  $m^3$  per ha of commercial volume, specific cost of certification of  $\in 2.20$  per  $m^3$ )

the international community around €3.55 million per annum, and a doubling of the certified area (from 5.65 to 11.3 million ha) would cost around €7.1 million. Concretely, it would mean a tax cut equivalent to the full amount of the area fee of XAF 413 for every company, actually slightly more than the area fee in Gabon (XAF 400) and in the northern Congo (XAF 350). In those cases, a tax credit for certified companies can be applied to compensate evenly certified concessions in the different countries.

This seems affordable considering the benefits of FSC certification in terms of improved management, legal compliance, and social benefits for the local populations, which have been highlighted in recent studies (Cerutti *et al.* 2016b, Tsanga *et al.* 2014). To give a benchmark figure, the total REDD+ funding committed for the DRC alone was USD 264 million by the end of 2014 (approx. €245 million)<sup>9</sup>. Such a compensation scheme would not have to be permanent, but if maintained for around a decade, it could boost the number of certified companies, increase the supply of certified timber (thereby encouraging retailers to systematically propose certified products), and allow companies to benefit in many ways from certification schemes.

#### **CONCLUSIONS**

With the increasing demographic density in many landscapes and needs for more agriculture land in Central Africa, the room for large-scale forest concessions is shrinking (except in Gabon, Republic of Congo and parts of DRC). Competition from other land-uses and other tenure systems (small-scale enterprises, private or community-based) has become more acute. There are two possible scenarios for the next 15–20 years:

 Progressive fragmentation of most of the concessions (except in some remote parts of a handful of countries), with massive land conversion to agribusiness or small-scale agriculture. This tendency will be associated with growing informalisation of the timber activity (including community forestry, which will remain largely unregulated) and a declining export sector. In parallel, the development of intensive

- plantations to substitute the shrinking natural forest production can be expected, if important land tenure issues are settled in the next future.
- Evolution of the concession system from mono-exploitation (timber) to a multi-spectrum of activities, mixing sustainable timber harvesting and valorisation of non-timber forest resources, genetic resources, agroforestry production, recreational hunting, energy production and distribution... Such "concessions 2.0" (see Karsenty and Vermeulen 2016) would require an evolution of the legal framework and public policies favouring such diversification, as it has started in Congo with recreational hunting associated with timber management on the same concessions' area. This would be acceptable only with the recognition of communities' customary territories within the concessions, to develop jointly such new economic activities with the concerned populations.

In the short term, desirable government's efforts would be to rethink sectoral and cross-sectoral policies in order to address the causes of the decline of the regulated timber production (the one associated with the concessions implementing management plans). This is essentially a question of political will since forestry is not being seen as an asset for the "emergence". Disappointment vis-à-vis the financial promises of REDD+ played a large role in the current low priority given to the forests in Central Africa. Levelling the playing field between committed concessionaires and other loggers would be one of the priorities, and numerous public policy instruments can be mobilized toward this objective.

Foreign donors could play a role in supporting committed concessionaires in their efforts to take better advantage of forest management certification. Recognising the public interest of private certification schemes in a context of virtually ineffective public policies and poor governance would not be detrimental to efforts to reinforce administration, help governments to improve their regulatory framework, and ensure consistency with forest-related policies, i.e. policies in other sectors that affect the forests. Since "price premiums" associated with certified timber are often not persuasive enough for concessionaires, given the diversity of markets and their uneven maturity, incentives could be set at the

<sup>9</sup> http://reddx.forest-trends.org

production level, through national budget-compensated tax cuts for certified companies. Furthermore, non-fiscal incentives could be introduced, such as longer concession contracts, like the 60-year tenure for certified areas that was recently decided in Sarawak<sup>10</sup>.

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