



The contemporary forest concessions in West and Central Africa: chronicle of a foretold decline?

The contemporary forest concessions in West and Central Africa: chronicle of a foretold decline?

Alain Karsenty

**Food and Agriculture Organization of the United Nations
Rome, 2016**

Disclaimer

The Forestry Policy and Institutions Working Papers report on issues in the work programme of Fao. These working papers do not reflect any official position of FAO. Please refer to the FAO Web site (www.fao.org/forestry) for official information.

The purpose of these papers is to provide early information on ongoing activities and programmes, to facilitate dialogue and to stimulate discussion.

The Forest Economics, Policy and Products Division works in the broad areas of strengthening national institutional capacities, including research, education and extension; forest policies and governance; support to national forest programmes; forests, poverty alleviation and food security; participatory forestry and sustainable livelihoods.

For further information please contact:

For further information, please contact:

Cesar Sabogal

Forestry Officer

Forestry Department, FAO

Viale Delle terme di Caracalla

00153 Rome, Italy

Email: Cesar.Sabogal@fao.org

Website: www.fao.org/forestry

Comments and feedback are welcome.

For quotation:

FAO.2016. The contemporary forest concessions in West and Central Africa: chronicle of a foretold decline?, by, Alain Karsenty. Forestry Policy and Institutions Working Paper No. 34. Rome.

Content

Executive summary	1
A. Objectives of the report	8
B. Land status in West and Central Africa	9
C. Sub-regions and country's profile in brief	11
I. Increase of forest cover losses in the two sub-regions	11
II. Countries in brief	13
D. The forest concessions in West and Central Africa	22
I. Industrial concessions	22
II. The debate on the negative impacts of concessions	32
III. Community forestry under concession regime	35
IV. Recreational hunting concessions	39
E. Managing the concessions	40
F. Allocating the concessions	44
G. Taxation regime	47
I. An issue less critical in the forest reform agendas	47
II. Transparency and Independent Observer	47
H. Experiences with Log Export Bans	49
I. The impact of forest certification	55
J. New interests for forestland and new challenges for the concession regime	57
K. Policy options for sustainable concessions	62
REFERENCES	67
APPENDICES	71

List of tables

Table 1: Synthesis of the area covered by concessions and areas certified in West and Central Africa	25
Table 2: Estimates of production and employment provided by the artisanal/informal sector (Sources: documents by Lescuyer and Cerutti, 2006 and 2013, completed by various other sources).....	55
Table 3: Most significant change in ownership, from European to Asian company	58

List of figures

Figure 1: Gross tree cover loss in Central Africa	11
Figure 2: Gross tree cover loss 2001-2014 per country in Central Africa	12
Figure 3: Gross tree cover loss in West Africa	12
Figure 4: Tree cover losses in Cameroon (30% threshold)	13
Figure 5: Tree cover losses in Congo (30% threshold)	14
Figure 6: Tree cover losses in DR Congo (30% threshold)	15
Figure 7: Tree cover losses in Gabon (30% threshold)	17
Figure 8: Tree cover losses in CAR (30% threshold)	18
Figure 9: Tree cover losses in Equatorial Guinea (30% threshold)	19
Figure 10: Tree cover losses in Côte d'Ivoire (30% threshold)	20
Figure 11: Tree cover losses in Ghana (30% threshold)	21
Figure 12: Tree cover losses in Liberia (30% threshold)	22
Figure 13: A glimpse on forest concession areas in Central Africa	23
Figure 14: Forest concessions in Liberia	24
Figure 15: Map of Ghana showing high forest zone where concessions are concentrated	24
Figure 16: Average size of the Forest Management Units in Central Africa	26
Figure 17: Area concentrated by main concessionaires in Central Africa	27
Figure 18: Concentration of areas by commercial partners	28
Figure 19: Maps of the "finages" (customary territories) overlapping with the CEB Precious Wood concessions (Gabon)	36
Figure 20: Community development series in the Mokabi (Rougier Group) FMU in Congo (Rep.)	37
Figure 21: Area and proportion of concessions with a management plan (in hectares and % of total attributed concessions)	41
Figure 22: Evolution of the timber production in Equatorial Guinea (thousands of cubic meters)	50
Figure 23: Log exported by central Africa's countries and Liberia:	52
Figure 24: In Gabon, the log export ban entailed a sharp drop of the production and overcapacities for wood processing (data: ITTO Annual Statistics On-Line)	54
Figure 25: Map of the Intact Forest Landscapes and their impact on the concessions	56

List of boxes

Box 1: Framework of the forest land status in Cameroon	10
Box 10: Conservation concessions in central Africa	60
Box 11: Waiting for FLEGT licenses	60
Box 2: Two socially advanced companies in Gabon and Congo	31
Box 3: Small-scale enterprise as alternative to industrial concessions	34
Box 4: Acknowledging and managing the dual dimension of the community forestry	39
Box 5: The experience of Cameroon with an auctioning system for allocating concessions	44
Box 6: Independent observation in support of forest law enforcement	49
Box 7: The opportunity cost of the log export ban	51
Box 8: Gabon's experience with the log export ban (LEB): facing a logjam	53
Box 9: The issue of Intact Forest Landscapes	57

List of acronyms

AAC	annual allowable cut
BCEAO	Banque Centrale des Etats de l’Afrique de l’Ouest
BEAC	Banque des États de l’Afrique Centrale
CAGDF	Cercle d’Appui à la Gestion Durable des Forêts
CAR	Central African Republic
CCBA	Climate, Community and Biodiversity Alliance
CDM	Clean Development Mechanism
CDS	Community development series
CEB	Compagnie Équatoriale des Bois
CEMAC	Central African Economic and Monetary Community
CIB	Congolais Industrielle des Bois
CIBN	Chartered Institute of Bankers of Nigeria
DRC	Democratic Republic of Congo
EC	European Commission
EITI	Extractive Industries Transparency Initiative
ERA	Ecosystem Restoration Associates
EU	European Union
EUTR	European Union Timber Regulation
FCFA	Franc CFA
FCPF	Forest Carbon Partnership Facility of the World Bank
FDL	Development Communitarian Fund
FIP	Forest Investment Programme
FLEGT	Forest, Law Enforcement, Governance and Trade
FMU	forest management unit
FPIC	Free, Prior and Informed Consent
FRA	Forest Resources Assessment
FSC	Forest Stewardship Council
FSC-CW	Forest Stewardship Council – Controlled Wood
GDP	gross domestic product
GFW	Global Forest Watch
GIS	Global Information System
IFL	Intact Forest Landscapes
IMF	International Monetary Fund
IO	International Observer
IPE	Individual Protection Equipment
ITTO	International Tropical Timber Organization
LEB	Logs Export Ban
LER	Log Export Rights
MHD	minimum harvestable diameter

MEF	Ministry of Forest Economics (Congo Rep.)
MNS	Market News Service
NTFP	non timber forest product
OFAC	Observatoire des Forêts d’Afrique Centrale
OLB	Origine Légale des Bois (Legal origin of wood)
PAFC	Pan-African Forest Certification scheme
PEF	Forest Exploitation Perimeters (Côte d’Ivoire)
PEFC	Programme for the Endorsement of Forest Certification
PES	payments for environmental services
PFE	Permanent Forest Estate
PUP	Private Use Permits
R-PP	REDD+ Readiness Preparation Proposal
REDD	reducing emissions from deforestation and forest degradation
REDD+	reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks
REM	Resources Extraction Monitoring
SFM	sustainable forest management
TFT	The Forest Trust
TLTV	Timber Legality & Traceability Verification
TUC	Timber Utilization Contract
VAT	value added tax
VCS	Verified Carbon Standard
VCU	Verified Carbon Units
VLC	Verification of Legal Compliance
VPA	Voluntary Partnership Agreement
WB	World Bank
WCS	World Conservation Society
WRI	World Resources Institute
WWC	Wildlife Works Carbon

Executive summary

1. Concessions are covering almost 56 million ha in West and Central Africa (50 million ha for Central Africa or about 30% of the total tropical moist area). Altogether, the concessions produce around 10 million m³ of roundwood each year. A similar volume of timber is likely to be mobilized by the artisanal / informal sector, sourced principally outside the concessions but with significant encroachments inside the concessions when those ones are very large and the population density is locally important – such as in the DRC, notably.
2. In West and Central Africa, forest lands are generally considered as “public”, although to become private property of the State (or other public entities, general local councils), specific procedures of titling entailing local consultations should be performed.¹ Often confused with the legal land status, there is the vocational land use, which starts with zoning plans of wooded lands and should be eventually legally enforced by another procedure, the gazetting. But some countries such as Cameroon use a single procedure, the gazetting, to create simultaneously the private domain of the State and the permanent forest estate (PFE).
3. A concession is a bilateral or unilateral legal act by which an authority grants a private or public personal use right or a privilege². In a public-private partnership perspective, the concession contract requests an individual or a company *to build up a public work or to achieve a public service*, at his own expenses, with or without a subsidy, and who may remunerate itself (or himself) through the commercial use of the work or the service. Public services are the preparation of forest management plans, infrastructure building, and social services (e.g. schools, medical dispensaries) as stipulated in concession contracts.
4. Relations between forest companies and local populations are often complex. They are subject to conflicts over commercial timber trees (which may have other functions locally) and environmental damage, but at the same time the arrival of logging companies is often hailed – above all by local populations themselves – as a significant economic opportunity in remote and landlocked areas. Demands and expectations of local populations usually cover medicine and equipment of health care centres, contribution to local education through building or funding schools, employment and training for young men from riparian villages, distribution of food and beverage, construction or maintenance of roads; and in some cases, provision of additional public infrastructure such as electricity and wells.

Social dimensions of the concessions' system

5. Community forests are often organized on the model of the concession, with an exclusive area for exploitation of a given resource and specifications. Cameroon stands for the oldest experience of institutionalized community forestry (since the end of the 1990s). The outcomes are not convincing due to, on the one hand, all the red tape imposed by the administration, and, on the other, the difficulties of collective action in Cameroonian forest villages. To make matters worse, some illegal loggers are using legal documents from community forestry to “launder” their timber for export.
6. Within the framework of forest management certification, some companies (e.g. the CEB-Precious Wood in Gabon) have started mapping the customary territories overlapping the industrial concessions. They use such maps as a key for benefit sharing, with local investments decided jointly with communities and proportionate to the area of customary territory

¹ The exception is Ghana, where forest reserves are owned by the customary « stool land » authorities, but managed in trust by the government forestry agency.

² FAO (2003).

overlapping with the industrial concession. A new generation of forest regulations calls for benefit sharing with “riparian” populations (Cameroon, Gabon, DR Congo), and/or for establishing “community development areas” within the industrial concessions (Congo). In the DR Congo, a 2014 decree paves the way for a dual conception of community forestry, distinguishing between the “forest of the local community” (that is the formally recognized customary territory that may or may not overlap with industrial concessions) and the “community concession”, which is a subdivision of the forest of the local community where the community has exclusive rights to the harvesting of commercial timber.

7. These dynamics, if properly accompanied by public policies and institutions, may trigger a transformation of the concession system in Central Africa towards the recognition of overlapping rights associated with different “institutional layers” on the same area. The overlapping areas might not only be a key element for benefit sharing, but they could also become joint management areas. As for the community-based concessions, allowing them to enjoy exclusive rights by moving back, when needed, the industrial concession boundaries could help to create small-scale enterprises that could benefit from association with nearby large industries, as has happened in other tropical regions.

Logging and management characteristics

8. 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 market demand; and (ii) the high transport costs, often dependent on road operations. In Central Africa, the volume of commercial timber extracted rarely exceeds 10-13 m³ per hectare, and is often around 4-8 m³ (0.5 tree per hectare) – for instance in the DRC. This corresponds to approximately 4 to 8% of the standing timber volume (all species), which is significantly less than harvesting rates in Southeast Asia. In West Africa, given the lowest transport costs, the selectivity was less pronounced. For instance, in Liberia the average forest yield was around 21 m³ per ha by the end of the 2000’s. In Ghana and Côte d’Ivoire, where road infrastructure is better, the yields used to be around 40 m³ per ha, but with the gradual exhaustion of the forest resources current harvests are lesser.
9. Management plans are mandatory in all countries. They are to be prepared by the concessionaire, (except in CAR where a public structure prepares the plan) and their implementation should be seen as an absolute precondition for keeping the concession. The reality is far from this principle, and it is very likely that the majority of non FSC-certified concessions (or those having certification of legal sourcing or timber, even though this is less stringent) does not implement fully their management plans, and many do not implement it at all.
10. In Central Africa, the two pillars of the silvicultural system are the Minimum Harvestable Diameter (MHD) and the Felling Cycle. Management plans are based on a “management inventory” (sampling of 1-3 % of the whole forest area) performed by the forest company using national norms. The management inventory allows for estimating the annual possibility, the distribution of the trees (to define the future Annual Allowable Cut - AAC) and the diametric structure of the population, needed for assessing the dynamic of renewal of the various species and set the MHD. The management plan should be completed during the first three years of the concession contract. During this period, the concessionaire is granted a “provisional management agreement”, allowing him to harvest the AAC (expressed in area and volume). To allow for some flexibility, there are 5-years blocs where the AAC can be open simultaneously (2 to 3, depending on the country). AAC must be closed anyway after 2 or 3 years of activity. Before the logging operations, a 100% inventory of the harvestable trees (commercial species above the MHD) must be performed and is generally done on an annual basis for the AAC. In West Africa, the rules are quite similar in Liberia (5-years compartment planning, 100% pre-harvest inventory

of commercial species above MDH) and in Ghana (operators are allowed to log compartments grouped in 5-years coupes within the five years). In Ghana, the Forest Service surveys the compartment, recording recovery commercial timber tree larger than 50cm diameter and mapping them. From this map the Forest Service calculates the total number of trees the company can take using a “yield allocation formula”.

11. Cutting cycles are 25 years in Congo and Gabon, 30 years in Cameroon and Liberia, 40 years in Ghana. In CAR, the duration is determined by the management plan, between 20 years (secondary forests) and 30 years (primary-like forests). In Côte d’Ivoire, the cutting cycle is generally of 22 to 25 years. Silvicultural treatments after exploitation are not mandatory in Central Africa. It is generally considered that the most important silvicultural actions are associated with the harvest itself, and with the raising of the MHD when deemed necessary for the regeneration of the stand. In West Africa, replanting is mandatory in Ghana (on branch roads, skidding trails and on sidings) and Côte d’Ivoire (1 ha should be replanted for 250 m³ harvested).
12. Sustainability of harvests without silvicultural treatments is, however, questioned in Central Africa. Simulations over 2-3 cutting 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 (where timber volume has accumulated over a long time) and their volumes will slightly decrease over the felling cycles - without the survival of the species being threatened, however. The traditional response would be to raise the MHD 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 potentially marketable trees remain untouched and it is likely that the market demand for timber will evolve (along with the processing technologies) over the time of 2-3 cutting cycles (50 - 60 years and more). Therefore, the issue of sustainability of the best current practices remains an open question.

Allocation system

13. Many countries claim that they are allocating the concessions through a transparent process, and some through tendering. In reality, allocation is still largely discretionary and it is only in Cameroon that the tendering is based on public auctioning, which has yielded interesting but controversial results (increase of the risk for the industry). The auction system has been effective in capturing most of the economic forest rent and both government and local council revenues have increased. It has strongly favoured transparency and has limited corruption, even though loopholes in the bidding process increasingly exploited by some players have not been addressed by the government³.

Taxation

14. Taxation regimes have evolved over time. After being historically low and concentrated on log exports, taxes have been increased on the concession’s area itself and, in some countries, has been globally raised as a consequence of the influence on the World Bank on the reforms initiated in the forestry sector. But after the economic crisis of 2008-09, tax pressure has been considerably lightened, through the conclusion of bilateral agreements between companies and fiscal administrations. In the meantime, the “parafiscalité” (taxes or “contributions” not planned in the Finance Law but created at administrative level - whether or not legally) has considerably increased and has replaced somehow the formal taxation regime, with a blurred boundary with corruption and racket.

³ Some loggers have made quite high bids, but have then used the three year provisional period to high-grade the whole of the concession. This is, however, more due to poor law enforcement than to any flaw in the auction system itself.

15. Transparency has increased but public information is still difficult to access and governments are reluctant to provide on-line updated information on concession holders. Fiscal information is still a very sensitive matter, and transparency is extremely limited, in spite of the EITI (Extractive Industries Transparency Initiative).⁴ The introduction of independent observers has improved the situation regarding the level of law enforcement in the field. However, the public information available has rarely translated into sanctions or reform of the monitoring system of the administration.

Experiences with log export bans

16. Partial or total log export bans have been introduced in several countries, but are only strongly implemented in a couple of countries, such as Gabon, Ghana and Côte d'Ivoire. Cameroon and Congo use quotas allocated to companies. Gabon, which was the first timber producer and log exporter of central Africa, abruptly banned log exports in 2011. The outcome of this experience is disappointing, since the production fell sharply, the fiscal receipts almost vanished and the employment did not surge as expected. Given the insufficient competitiveness of the processed products, the volumes previously exported as logs have not been replaced by processed products, and the financial viability of the forest companies has been severely reduced. This reveals the existence of an opportunity cost of local processing on several segments of timber and would call for more innovative policies, possibly inspired by the cap-and-trade systems (transferable quotas) existing in fisheries and for pollution mitigation through Log Export Rights.

Employment

17. Overall, concessions provide direct employment for around 135,000 workers in the selected countries of West (Liberia, Ghana, Côte d'Ivoire) and Central Africa (Cameroon, Congo, Gabon, DRC, CAR and Equatorial Guinea). The informal sector is likely to provide many more jobs in populated countries such as Côte d'Ivoire, DRC, Ghana, and Cameroon, according to estimates (more than 100,000 jobs in Cameroon, up to 15,000 permanent jobs in DRC and probably much more if one takes into account also the non-permanent jobs). One specificity of jobs provided by the timber sector is that they are among the rare jobs available in remote and economically marginalized areas (the forest zones), and which target non skilled people. It is estimated that one permanent job in Central Africa sustains the livelihood of 10-12 relatives

Certification

18. Forest management certification has been a game-changer in Central Africa, for the six companies who have been able to get their concessions certified. Five of them are EU-based companies⁵, with markets oriented toward the Western world and large areas. Certification pushes companies to legal auto-regulation, since a negative audit would mean jeopardizing their market shares in some EU markets. No new concession has been certified for a couple of years, now, raising the question about the potential of the forest management certification for expanding beyond the so-called "early-movers". Not all certified companies have reached the same level of achievement, but some have reached an impressive level with respect to social criteria, rights recognition and benefits sharing with local communities. "Success stories" in Gabon and Congo are often exposed, but such achievements are fragile as the cost of reaching them is often questioned by the shareholders of the related international groups.
19. Investment in the forest management certification means significant costs, which are not always compensated by a price premium. Legality certification (OLB, VLC, FSC-CW...) that has multiplied

⁴ EITI is active in many African countries, but this is generally in mining and minerals, with Liberia currently the only country that has signed up its forestry sector for EITI.

⁵ Congolaise industrielle de Bois (CIB), the largest FSC certified company in Africa, is owned by OLAM which is headquartered in Singapore.

since the entry in force of the EUTR, somehow compete with forest management certification and competition is likely to increase when FLEGT licenses will be available in the future.

20. Internal discussions within the FSC tend to crystalize on the Congo Basin, with pressures to strengthen the requirements for the industrial concessions, especially with the new requirements of the “Intact Forest Landscapes” (IFL), which could force some concessionaires who are currently FSC-certified but have so-called IFL in their concessions to abandon the FSC and to seek an alternative with the PEFC/PAFC currently pushed by some stakeholders.

Changing conditions and transfer of assets

21. The markets for African timber have profoundly changed during the last 15 years. China, and increasingly other emerging Asian markets are replacing the traditional western outlet, and especially the EU market. As a consequence, Asian interests are gradually taking over European ones, and most of the area and the industrial production are now taken by Asian companies. Since the profitability of the activity is low (when complying with the regulations in force), many European companies have sold their activities to Asian companies who, on the one hand, are sometimes less concerned about some regulations and, on the other hand, have more effective trading networks.
22. Since 3-4 years, there is almost no more “primary” or “primary-like” productive forest to be exploited within the “perimeter of profitability” (depending mainly on transport infrastructures) of the forestland in Central Africa. All forests have been “secondarized” to a greater or lesser extent, meaning the “primary forest rent” has been largely dissipated by the first cutting cycle. As a consequence, profits are lower than they have been in the past and the industry has started to restructure to adapt to the reduced availability of traditional commercial species: there are many species potentially marketable 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) do not appear to have the resources to make this investment effort.

A low policy priority

23. 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 lower expectations vis-à-vis this scheme, leading to disregard the forest sector at a whole). In West and Central Africa, economic growth is associated with the extractive industries, and to a lesser extent to the large-scale expansion of perennial crops, such as oil palm, rubber 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 forest management certification. Governments are also aggressively promoting agro-business, often at the expense of the forest concessions.
24. 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, connected to global climate change issues. 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 tracking, sustainable forest management certification, social service provision for local populations, and significant fiscal contribution. This has the effect of squeezing out small-scale operators, who often resort to becoming, or remaining “informal” to avoid overregulation and associated corruption. In countries where the domestic market share is low, producers face strong competition from other countries, corporations and business models. Concentration and restructuration (of the export-oriented industry) on the one hand, and fragmentation (of the

domestic-oriented industry) on the other, seem to be the current trends in the logging industry of the Congo Basin.

Uncertain international initiatives

25. 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 harvestable diameter, and, to a lesser extent, extension of the cutting cycle length 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 carbon credits’ prices, perspectives are limited. It is also unlikely that the so-called “voluntary markets” could be an outlet for the carbon credits that would be possibly emitted by concessionaires through “REDD+ projects”, given the mixed perception of industrial logging. In addition, the issue of non-permanence is a serious one, given the frequent changes in ownership of the concessions – and also the risk of conversion, though this risk is often lower than in forest areas outside concessions. Moreover, the second “D” of REDD+ (avoided degradation) will more likely pave the way toward “conservation concessions” that could be remunerated, rather than for “improved logging concessions”.
26. The FLEGT program and the VPAs proposed by the EU are facing huge difficulties in W& C Africa, especially because almost all VPAs foresee legalizing domestic as well as export timber. The difficulty of ensuring and verifying all the timber production at national level has been underestimated both by the EU and by the African governments who have, in most countries, pushed for including also the domestic market in the scope of the VPA agreements. Companies exporting to Western markets sought for legality certification proposed by private bodies, and want them recognized as “proof of legality” by the African national authorities and “negligible risk” by the EU national authorities for the exported timber so far. FLEGT program has failed to reduce the level of illegal timber at country level and the unfair competition between players so far.

What alternatives?

27. In moist tropical forests of Africa, autonomous community forestry is generally not capable of replacing the industrial concessions and achieve sustainability of timber harvesting through small-scale enterprises. Hence, the decline of the industrial concessions regime is simply associated with forest degradation and triggers forest conversion, at small or large scale. This call for an evolution of the concession regime, more adapted to the growing population pressure and local land rights claims, and oriented toward a more intensive use of a wider range of natural resources
28. With the increasing demographic density in many parts of W&C Africa, the room for large-scale concessions is shrinking (exceptions being essentially Gabon and Republic of Congo). Competition by other land-uses and by other tenure systems (small-scale enterprises, private or community-based) is more acute.
 - A pessimistic scenario anticipates a progressive fragmentation of most of the concessions, with a growing informalisation of the timber activity (including community forestry, which will remain largely unregulated) and a declining export sector.
 - An optimistic scenario would anticipate an evolution of the concession system, from a mono-exploitation (timber) to a broader spectrum of activities, mixing SFM and valorisation of NTFPs, genetic resources, agroforestry production, sports hunting, energy production and distribution... Such “concessions 2.0” would require an evolution of the legal framework and public policies favouring such diversification, as it has begun in Congo where recreational hunting can overlap timber management on the same concession area. From both a development and a human rights perspective, however, this would be acceptable only if it entailed the recognition of communities’ customary

territories *within* the concessions, to develop jointly such new economic activities with the concerned populations.

Policy recommendations

29. The desired evolution of the concession regime highlighted above should be supported by a set of policy reforms favouring the rule of law and recognition of overlapping tenure rights in the concessions. The main policy recommendations are:

- Zoning plan and establishment of Permanent Forest Estate in each country.
- Gazetting all the concessions applying FPIC (Free, Prior and Informed Consent) principles.
- Strict procedure for mining inside concessions and obligations of ecological compensation by the extractive industries and financial compensation for timber concessionaires affected.
- Public availability of updated information on the concessions (surface, production, holders, etc.) on Ministries' website.
- Inclusion of industrial forestry in the EITI by governments (as in Liberia)
- Systematic mapping of the customary territories in and outside the concessions and participatory management of customary territories inside concessions.
- Organization of the dual dimension of community forestry, combining overlapping areas and exclusive community concession areas. On this basis, allowing for the economic use of several resources beyond timber, through recreational hunting, NTFPs exploitation and processing, agroforestry and other sustainable activities. Such commercial multiple use should be based on joint-ventures with local communities, after mapping of their customary territories included into the concessions and subsequent recognition of overlapping tenure rights.
- Cancellation of concessions without management plans deposited after 3 years maximum (with a 1-year grace period for exceptional circumstances).
- Strict enforcement of the volume and boundaries of the Annual Allowable Cut granted for the first 3 years (to prevent over-exploitation of the provisional area and high-grading of the whole concession area).
- Use of transferable national quotas for log exports to be auctioned instead of LEB.
- Organize logging rights of small-scale loggers with community concessions and in farmer's fallows by adapting tree tenure as in Côte d'Ivoire (recognition of tree ownership for farmers using uncontested land plots).
- Provide incentives to certified concessions (forest management schemes) through tax cuts, for instance the area fees. Foregone revenues would be compensated by international initiatives (such as REDD+ or FIP).
- Earmark forest taxes for a fund devoted to cover the costs of certification and audits for the companies (mutualisation of the cost of certification)
- Set procedures for "automatic" refunding of VAT for the exporting industries.
- Streamlined procedures for public purchasing policies of timber based on verification of legality in all African timber producer countries. This should also be adopted by all donor-funded projects.

A. Introduction

Deforestation is still occurring at an alarming rate worldwide, in spite of a recent slowdown attributable essentially to the improvement of the situation in the Brazilian Amazon over the last 8-10 years and the fact that accessible lowland forests in Sumatra and Borneo have almost all been converted. Losses of natural forests not only degrade the livelihoods of forest-dependent people, but also entail irreversible destruction of biodiversity and contribute to the aggravation of global warming, since land-use changes represent between 10 to 15% of anthropogenic carbon emissions worldwide.

Given this context, industrial forest concessions are seen by some as an indirect driver of deforestation (and a direct driver of degradation), but other analysts emphasize the absence of association between selective logging and deforestation, and consider that well-managed concessions may represent an asset against pressures for forest land conversion, either by agribusiness companies or by smallholders. The forest concession concept gained traction in the last decade, being introduced in highly forested countries such as Brazil and Russia, where governments intend to use this regime to avoid leaving large tracts of forests under uncertain tenure situation which favours appropriation through illegal (but often tolerated) deforestation.

On the other hand, with the increase of rural population densities in many tropical areas and legitimate claims for being granted new rights on forest lands often considered as public/State estates, the existence of forest concessions is challenged. Many consider that concessions should be dismantled in favour of community forests, supposed to provide more benefits to local populations. But many community forests are also forest concessions, and running a viable community-based enterprise oriented on timber is not an easy task, particularly in places where infrastructures are degraded, transport costs are high and markets difficult to access – especially with the competition of a growing informal sector delivering (illegal) timber at lower cost on the domestic markets.

Forest concessions are at a crossroad. Their legitimacy rests on their transparency, their strict compliance with laws and regulations and the social and ecological guarantees they can display. Thanks to both public policies promoting forest management and private certification schemes, the quality of management of industrial forest concessions improved in several countries, although this trend is very heterogeneous, with question marks on the effectiveness of the application of legally requested management plans in numerous concessions. With the change of structure of exploited forests, the processing industry will have to innovate to avoid the erosion of financial profitability which is already observable in many concessions complying with legal management rules. And concessions will have to change in order to accommodate to local land tenure claims and share more benefits with local populations.

This report seeks to take stock of the status and the evolution of forest concessions in West and Central Africa, with an emphasis given to the industrial concessions. It provides an analysis of the concessions regime, with its legal, institutional and technical aspects, examines the strengths and the weaknesses of the current concessions regime, and discusses the possible evolution and perspective of the forest concessions in this sub-region.

Defining forest concession

According to FAO's 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 Codes are still mentioning this), but this responsibility has been transferred to the concessionaires (except in CAR). Likewise, social obligations of the concessionaires has 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.

B. Land status in West and Central Africa

In West and Central Africa, forest lands are generally considered as “public”, even though some countries such as Cameroon (also Togo and Senegal) have a specific land status (called “domaine national” or “domaine rural”) 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, private or public, 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.

In Ghana, all forest lands are held in trust by the Government, which manages them for the stool landowners. The forest reserves were gazetted under colonial rule to create a permanent forest estate while allowing for the conversion over time of the remaining natural forest into other land uses (Lund et al., 2012). In Liberia, at first, State policy recognized customary ownership as full ownership rights, whether or not formally titled. It now recognizes only usufruct rights of possession and use of undocumented customary claims. This policy has permitted the State to grant concessions for vast tracks of customary lands, as well as to create national parks and reserves. During the civil war, a new national forestry law was passed, decreeing that forest resources (trees), as distinguished from forest lands, belong to the state (USAID, 2010).

Forest concessions are an important tool for sustainable forest management (SFM), especially considering that the majority of forests in tropical countries are public. Forest concessions for timber production have been the primary means of allocating harvesting rights for tropical forests in developing countries, as well as in several developed countries with temperate and boreal forests.

There are many concerns about forest concessions, which appear to have a bad track record, particularly in a number of tropical/developing countries. However, good examples of forest concessions do exist, often as individual initiatives of forest companies or communities rather than for whole countries.

Some past failures of forest concessions can be overcome through critical modifications in the design of the concession system. These and other objective and context-specific changes can be incorporated into new and different forest management agreements.

Well-managed public forest concessions have the potential to sustainably deliver both direct and indirect environmental and social benefits to neighbouring populations as well as to society as a whole. Besides helping to maintain forest coverage and providing services such as water storage and climate regulation, forest concessions can play an important role in structuring and managing the conservation units where the concession process takes place, through reinforcement of governmental presence in those areas and legalization of land ownership in the region. Better, more equitable and transparent forest concession systems in public forests can contribute to creating and strengthening forest-based economies capable of generating benefits at the local and regional levels – i.e. an inclusive, sustainable forest-based economy.

Although the distinction between “national domain” and “private domain of the State” is clear in the law in francophone countries, the administrative practices do not translate it into the facts, and tended to consider all the forests on the national domain as “Government’s lands”, disregarding local occupation and use rights.

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 service 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 to the name of the State. This is possible only because in Cameroon’s legal framework, permanent forests are also private domain of the State – or of a local council (see **Box 1**), 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.

Box 1: Framework of the forest land status in Cameroon

A zoning process, normally, should have essentially the objective of determining which land should be kept as forest land on the long-term, whatever is their legal status – present or anticipated (since several Forest Management Units - FMU/concessions are still not officially gazetted and assigned to the permanent forest estate). In Cameroon, the CFs are outside the permanent forest estate, in spite of the initial governmental project, but it is not the only solution that can be adopted.

Land vocation as suggested by the zoning plan	PERMANENT FOREST ESTATE (Gazetted forests or forest awaiting to be gazetted)		NON PERMANENT FORESTS (“agro forestry mosaic strip” along roads part of the National Estate)	
Administrative naming	DOMANIAL FORESTS	LOCAL COUNCIL FOREST	COMMUNITY FOREST	OTHER FORESTS
Juridical status	Private property of the state	Private property of the local council	Sub-division of the National Estate	(National Estate, private forests)
Attribution	Production forests, protection forests, etc.	Production forests, protection forests, etc.	Local management under the supervision of the Forest Service	Allotted forests (private properties) or awaiting being allotted

In Congo, the “Forest Policy Document” discussed in the Government for two years points out to the absence of gazetting for the FMU (which are the basis of the industrial concessions). Since the lands concerned are not titled either, one can see that there is a long way to go for achieving the rule of law in the forest sector in many countries.

C. Sub-regions and countries' profiles in brief

In this report focusing on West and Central Africa we selected 9 countries in which industrial forest concessions have an economic importance and a social significance. This does not mean that forest concessions do not exist also in other countries of the region, but they are, or they have become, marginal. On the other hand, there are forest concessions in other parts of Africa, notably in Mozambique, but it is outside the scope of this study.

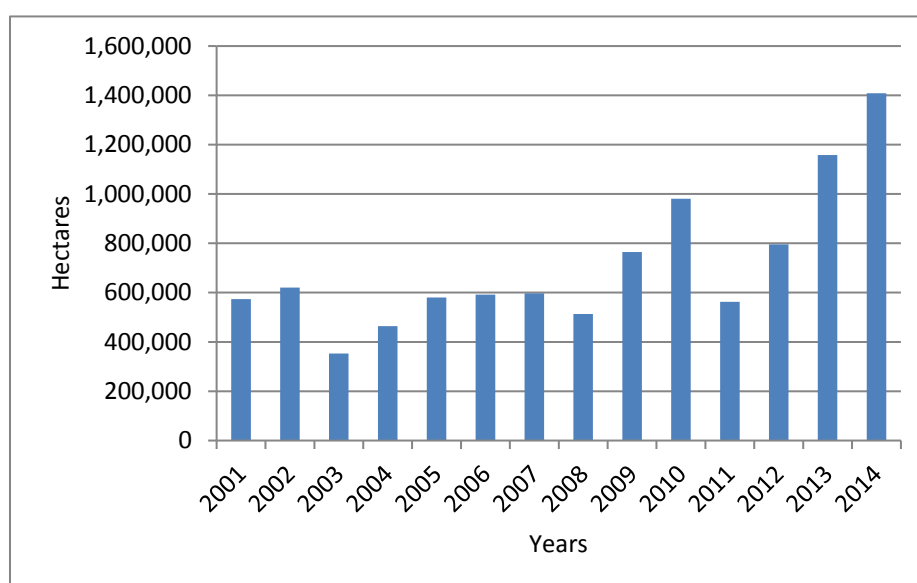
The profile here presented provide information related to forest cover, estimates of deforestation by the Forest Resources Assessment (FRA) of FAO and of tree losses by Global Forest Watch (GFW), economic weight of the forest sector in the national economy and elements of context helpful to frame the analysis of the concessions. Complementary information can be found in the comparative table in appendices.

Although it is well known by experts that FRA and GFW do not monitor the same things, the important discrepancies between the two sources is such for several countries selected that we decided to present the estimates in parallel, and also because GFW interface allows to select different “tree cover threshold”⁶, which is an important feature to get a better understanding of the forestry context in countries such as the Central African Republic or Côte d’Ivoire.

I. Increase of forest cover losses in the two sub-regions

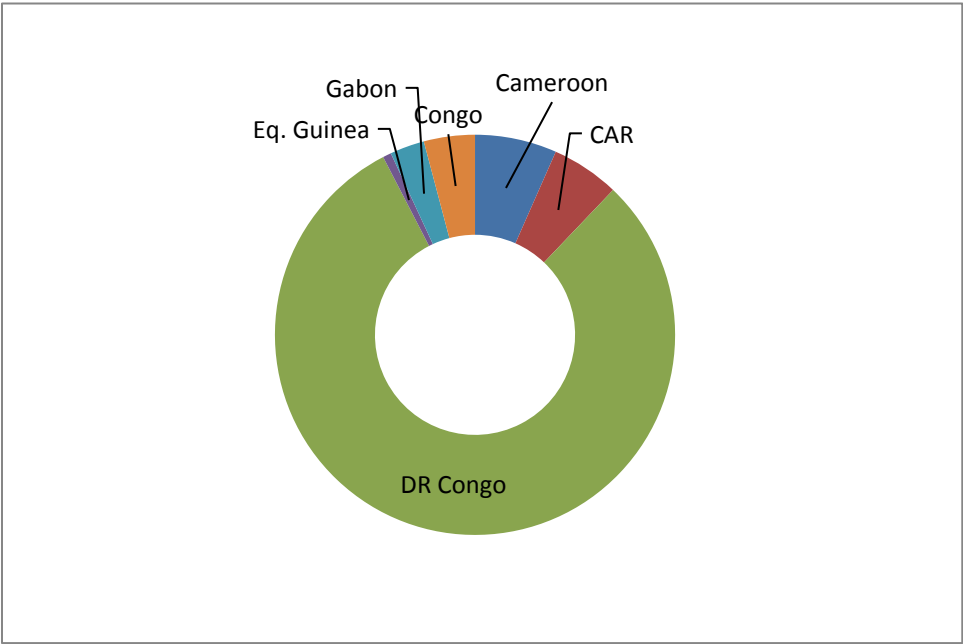
According to GFW data, the rate of forest cover losses is increasing both in Central and West Africa (**Figure 1** and **Figure 2**).

Figure 1: Gross tree cover loss in Central Africa



⁶ Tree cover thresholds (per area unit) are key criteria for defining “forests”, and in for countries harbouring various types of forests, adopting threshold of (10%, 30%, 50% or 75%) modifies considerably the area o forest and, from there, the figures of deforestation. Throughout this document we will provide the threshold associated with the figures of forest cover and deforestation.

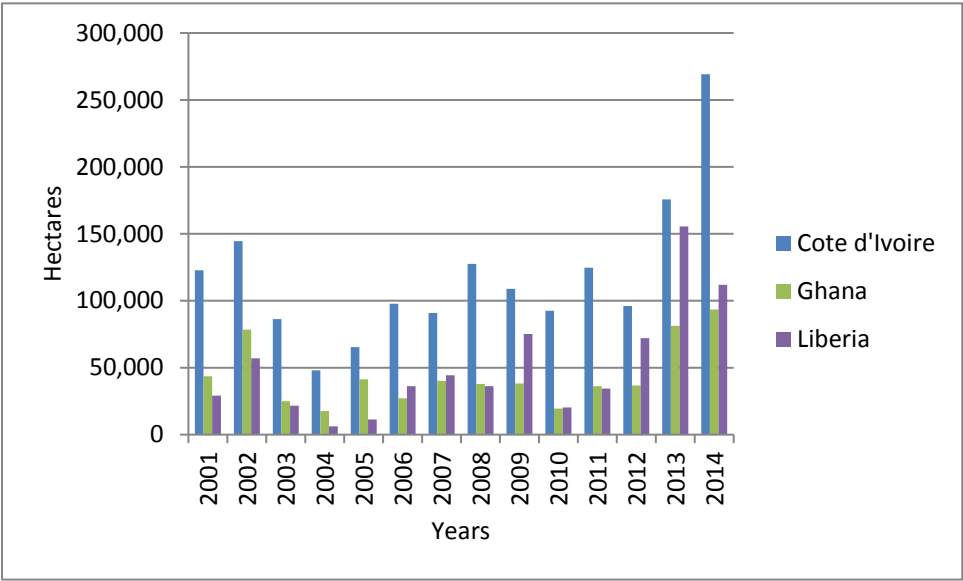
Figure 2: Gross tree cover loss 2001-2014 per country in Central Africa



Source: GFW – Forest cover threshold: 30%

In Central Africa, 80% of tree cover losses are attributable to the DRC (Figure 1a), while in West Africa, Côte d'Ivoire is the most affected by deforestation (**Figure 3**).

Figure 3: Gross tree cover loss in West Africa



Source: GFW – Forest cover threshold: 30%

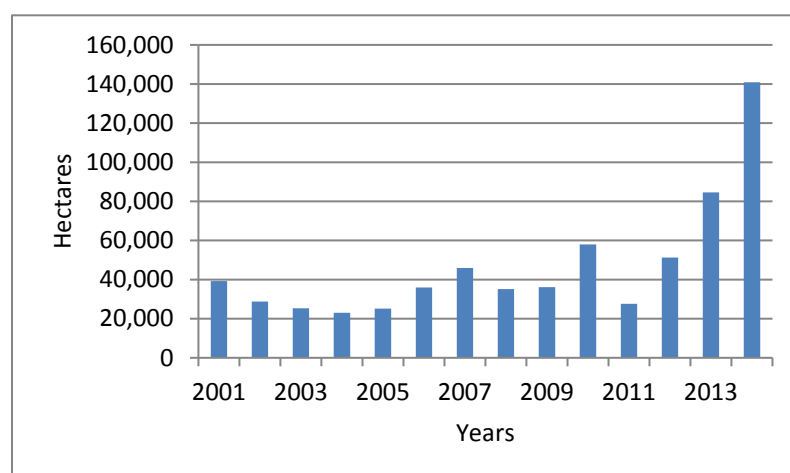
II. Countries in brief

Cameroon

Estimates of forest cover vary from 17 million ha (GFW, threshold of 75% tree cover) to 18.81 million ha (FRA 2015) of forest area⁷. With respect to timber, Cameroon is now the first exporter in volume (roundwood equivalent) of West and Central Africa. The formal industry produces around 2.2 million m³ of wood per year, with the bulk exported as sawnwood and although there is still a significant proportion of log exported (having increased since the log export ban in Gabon). Net deforestation is estimated at 220,000 ha per year between 2010 and 2015 by the FAO (FRA 2015) but GFW indicates a much less figure (around 60-70,000 ha of tree cover loss annually for a 10% threshold, and 15-30,000 for a 75% threshold) (**Figure 4**). As in the case of Gabon, deforestation tends to increase due to the development of permanent crops (oil palm, rubberwood) by both large corporations and mid-size farmers, adding to the deforestation caused by small-scale farmer cultivating food crops. Deforestation is important in the western and centre parts of the country, while the far east, less populated and quite landlocked, is also less deforested.

The contribution of the forest sector (hunting excluded) to the GDP is around 2.75 % and 3.75 % for the non-oil GDP (CIFOR, 2014). The number of employees in the formal timber industry is 22,000 and an estimated 44,000 for artisanal (informal) timber. The informal timber sector mobilizes an almost comparable volume to the formal industrial sector (around 2 million m³ annually, against around 2.7 million m³ estimated in 2013 for the formal industrial sector). Although most concessions have a management plan, the effective implementation of those plans is questioned and stakeholders foresee many abandoned concessions by their initial beneficiaries in the next future.

Figure 4: Tree cover losses in Cameroon (30% threshold)



Source: GFW

Several ambitious forest reforms took place in Cameroon who introduced the first “new generation” forest code in 1994. The experience with community forestry was pioneer in Central Africa, but the overall outcome is considered disappointing (Cuny, 2011). Cameroon attracted attention in the 1990’s and 2000’s for its endeavours to reform the allocation system of concessions and the fiscal regime. The amount of receipts increased significantly with the mechanism for setting the annual area fee through auctioning, although an uncompleted reform agenda prevented further progresses, and promises of synergies between fiscal instruments and better forest management remained unfulfilled. In spite of these initial interesting achievements, it seems that, for several years, the

⁷ For a 30% threshold of forest cover, GFW indicates an area of 31 million hectare, a figure extremely different from FRA 2015. However, when aggregating “forests” and “other wooded lands” categories, the area calculated from FRA 2015 data is of 31.5 million ha.

policy priority is no more with forestry and the Government promotes actively the development of agribusiness, thus lagging behind to complete the legal procedures to gazette the forest concessions (Ongolo, 2015). The attempt to create a large “conservation concession” in the Ngoyla-Mintom area (around 870,000 ha), a primary forest initially designed for logging but never allocated, failed in 2013 when the Ministry of Forests decided to launch a bidding process on the area. Finally, after several governmental about-turns, only half of the area has been allocated and the fate of the remaining part is still pending (Ongolo and Karsenty, 2015).

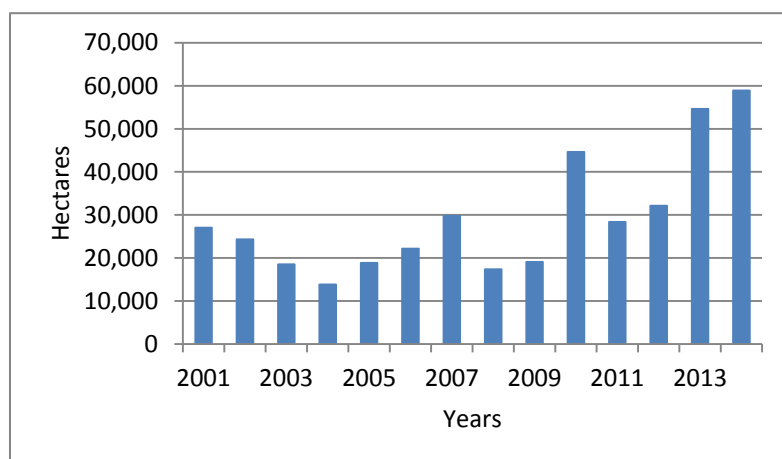
Cameroon has been one of the first countries to sign up a FLEGT/VPA with the EC. Three difficulties are currently faced by the country to export timber with “FLEGT authorizations”: the first is that the VPA encompassed also the domestic timber market, which is dominated by informality (and is technically illegal); the second is that the technical firms having attempted to design a national verification and traceability system with the administration failed to produce a workable system. Finally, with the importance taken by “conversion timber” (forest converted for oil palm production) which sometimes occurs with administrative authorizations but on part of the legally established PFE, there are big question marks on the legality of such timber.

Congo (Rep. of)

From a forestry perspective, Congo, a 4.3 million inhabitant’s country, is usually considered as a dual nation. The north of the country is landlocked, with large forests in which the sapelli is the most exploited species, and the south, a forest more fragmented in which okoumé (*Aucoumea klaineana*) is the most exploited species, with lower transport costs. Two-thirds of the forest is located in the north, where large (up to 1.9 million ha) European-owned concessions are dominating, and almost one-third is located in the south of the country, where Asian, Congolese and European companies are present, with a dominance of Asian ones (who are controlling *de facto* the smaller Congolese companies). Certified companies are concentrated in the north, while none can be found in the south, reflecting the largely unregulated situation of the region which has been affected in some parts by political troubles in the recent past.

The forest cover is about 22.3 million ha (FRA 2015), although GFW estimates indicate a forest cover of about 21 million with a cover threshold of 75%. The net deforestation has been on average around 14,500 ha per year (0.1%) during the 2010-2015 period, while GFW provides highest figures of around 35-40.000 ha of forest tree losses for the same period (30% threshold) (**Figure 5**).

Figure 5: Tree cover losses in Congo (30% threshold)



Source: GFW

The forest suitable for production (timber) purposes is only 10 million ha. About 7 million ha of dense forest are located in areas liable to flooding and are considered not exploitable for timber (4 million

ha are flooded forests). The 15 protected areas cover 3.7 million ha, but many of them are ill-managed and subject to poaching.

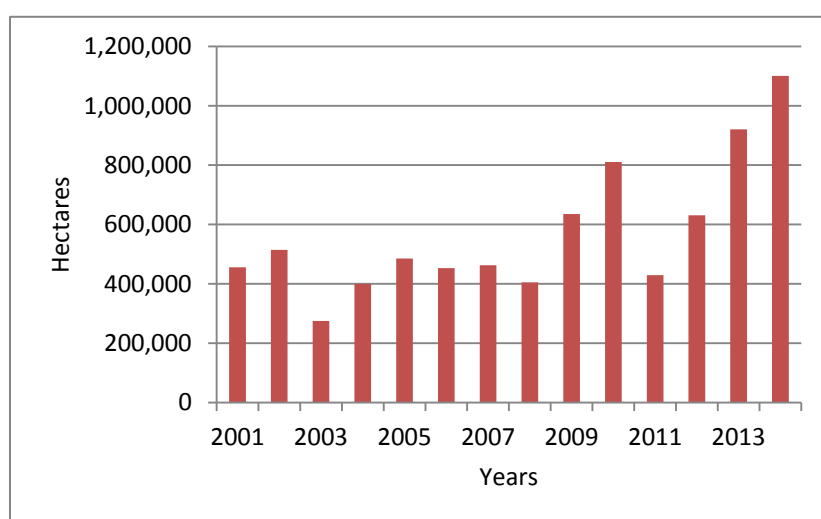
According to GFW, the forest sector represents around 1% of the GDP but a 2006 economic audit of the forest sector performed in 2006 indicated a contribution of 5% and of 10% against the non-oil GDP (Bravi et al., 2006). The forest industry employs between 10,000 – 12,000 workers. Although the Government seeks actively to promote wood processing – there is a law requesting each company to transform 85% of its log production – there is still more than one third of the timber produced exported as logs, and its share recently increased as a possible consequence of the Gabonese log export ban. The artisanal sector is, overall, not very important but with locally significant impacts in the southern region around Pointe-Noire.

Congo is engaged in both FLEGT and REDD+ processes. As in Cameroon, the country faces serious difficulties for setting up a national verification and traceability system. REDD+ raised initially high expectations, but signs of disappointments about financing were perceptible in the last years, and the Government seeks actively to attract foreign investors to develop the agribusiness. The country is currently in the process of enacting a new forest policy and a new forest code.

DR Congo

With 152.5 million ha (FRA 2015) or 119 million (GFW, 75% threshold), DRC harbours the largest tropical humid forest of Africa. It is also one of the countries with the highest deforestation rates: stable annual net deforestation of 311,400 ha in average since 1990 for FRA 2000, tree losses around 700,000 ha per year (tree cover: 30% threshold) since 2010 for GFW, and with an acceleration of losses compared to previous periods (**Figure 6**).

Figure 6: Tree cover losses in DR Congo (30% threshold)



Source: GFW

DRC is also the most populated country of Central Africa, with around 70 million inhabitants. Internal migrations have been important due to the numerous conflicts that are still affecting the eastern part of the country. In spite of the impressive forested area, the productive area is limited by the absence of infrastructure leading to a heavy reliance on navigable portions of the rivers (primarily the Congo River and its tributaries), and by the numerous flooded forests around rivers. DRC is also a “fragile State” with extremely low capacities of its administration for managing territories, leading to significant discrepancies between the area registered by the ministry for concessions or protected areas and estimations through GIS. Yet, forest concessions are officially covering 10 million ha (a dozen of concessionaires) while GIS estimates give a figure of 12 million. The same apply for the

protected areas: officially, 26 million ha are protected, but the GIS estimates give only 22.6 million ha.

Protected areas are generally not well managed or are ill-managed, while forest concessions, often very large but not fully productive, are nibbled by small-scale agriculture, illegal loggers and charcoal makers. According to a recent study (Defourny et al., 2011), deforestation in DRC is closely correlated with population density – and not with forest concessions or mines. Although announcements of mega land deals with agribusiness corporations have been trumpeted some years ago, development of oil palm plantations is still modest and forecasters are more circumspect regarding the changes in land use for the near future.

Official forest production is fairly modest (around 300,000 m³ per year, which weight is negligible in the GDP) due to the high costs of “doing logging business”, but in the eastern part of the country illegal logging is rampant with significant volumes of timber exported to neighbouring countries. To supply the large domestic market, the informal artisanal sector mobilises probably more than 3 million m³ per year, which is ten times the formal production. A moratorium on the allocation of new concessions - until transparent procedures for allocation and a national land-use plan is advanced - is in force since 2005.

DRC is engaged in a decentralisation process entailing the transfer of many responsibilities regarding management of natural resources to the provinces (11 today, but 26 already created but not functional yet), with provincial ministries in charge of the forest created since a couple of years. This has led to some confusion in responsibilities, tax collection and monitoring, knowing that the capacities of these new provincial ministries are highly heterogeneous.

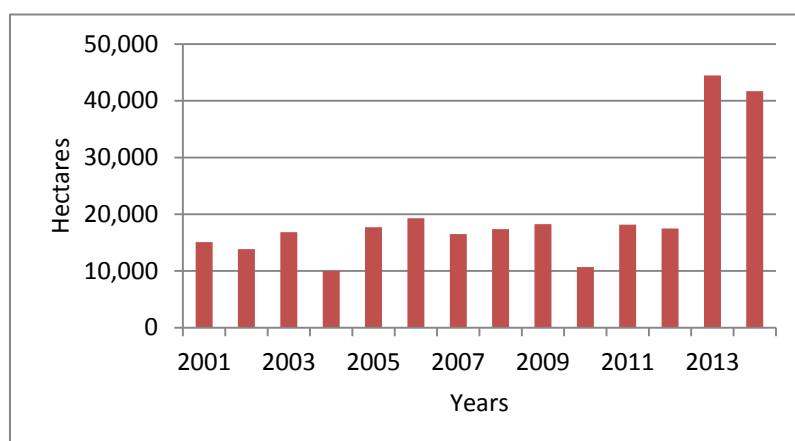
The Government is currently discussing with the EC about a possible FLEGT/VPA, even though the ambition of establishing timber legality on the full territory appears highly challenging. DRC is often considered as fairly advanced in the REDD+ process, even though changes on the field remain to be seen. The country benefits from many international funds, including FCPF Carbon Fund, the Forest Investment Program (FIP), the Congo Basin Partnership Facility - CBPF (for projects) and, very recently, the Central Africa Forest Initiative (funded essentially by Norway so far) from which the DRC expects an investment of US\$ 250 million up to 2020.

Gabon

With a population of around 1.7 million inhabitants, mainly concentrated in urban areas, and an area of 26,7 million ha, Gabon is a relatively “empty country” and has an important and dense forest cover representing 88 % of its total area. The country is largely covered by concessions, and in 2002 the Government decided to create 13 national parks covering around 3 million ha, sometimes at the expense of some parts of legally attributed concessions. A national land use plan is ongoing. For a tree cover density of 75% (which is the most relevant for a study on concessions), the total forest area is about 23 million ha (GFW).

The deforestation rate is historically very low, reflecting the very limited pressures from a tiny number of slash-and-burn farmers. For the same reason, FAO pointed out a net increase of 200,000 ha of forest in Gabon between 2010 and 2015 (FRA 2015). GFW indicates tree cover losses (for a 30% cover) of around 15-18,000 ha between 2001 and 2013 (less than 0.07% annually), and a significant increase in 2013 (loss of 40,000 ha) attributable to the development of oil palm and rubber plantations by large companies (**Figure 7**).

Figure 7: Tree cover losses in Gabon (30% threshold)



Source: GFW

The forestry sector contributed US\$ 422.2 million to the economy in 2011, which is approximately 1.8% of the GDP (Global Forest Watch). However, experts' evaluation in the beginning of the 2000's (Odyssee Développement, 2005) gave a larger estimate of 3.8% by adopting a broader view of the activities generated by forestry. And if the oil sector is excluded, the contribution was of 6.4% according to the same study. According to the last estimates from the Ministry in charge of forestry, the direct employment in the forest sector accounts for around 8,500 employees, a figure to which one should add the indirect employment (in transport, trade-related activities...) which may represent around 10,000 to 15,000 persons working at least part time for the forestry sector.

The country is divided in two regions, the (former) "first zone", a coastal region whose boundaries correspond to the navigable parts of the river, and the hinterland, articulated around the railway going to the east. The attribution of forest permits in the first zone has been reserved for Gabonese national only, leading to widely spread practices of sub-contracting of the concession to active loggers (called "*fermage*"). The first zone is the most degraded, but okoumé's regeneration is dynamic in many places. Gabonese forest is known for the abundance of the okoumé, a light demanding species, which is sought after by the veneer and plywood industry. Okoumé's regeneration is difficult in closed forests of the hinterland. There is also a "frontier of the okoumé" in the large north-eastern part of the country where the species is not present, making the exploitation less attractive for an industry accustomed to rely mainly on this species.

Concessions have been historically handled by French interests, but Malaysian and Chinese companies, working in Gabon since the mid-90's are now prominent, and Asia is the main outlet for the exported timber. Contrasting with the presence of very large concessions, most of the concessions are of limited size. A 2007-2013 project funded by the French Aid attempted to aggregate these small-sized forest permits (a total area of 2.5 million ha were targeted) but yielded very limited results. Many concessions are still without management plans after the expiration of the 3-years temporary agreement allowing for harvesting while preparing the plan.

With the log export ban decided in 2010, mid-size operators specialized in log exports, and often contractors of Gabonese' legal concessionaires, have been forced to leave the activity. As explained in the report, the timber production has shrunk after the log export ban and Gabon is no more the first timber exporter in West and Central Africa.

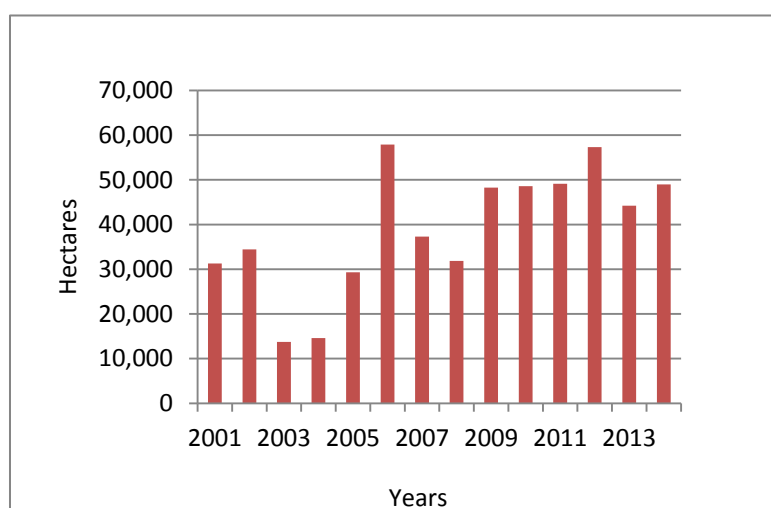
Gabon did not show significant interest for the FLEGT process and the VPAs proposed by the European Commission. And after having being active within the UNFCCC and COMIFAC at the beginning of the REDD+ process, the Government decided to take some distance with the process, and focused on a national Climate Plan instead.

Central African Republic (CAR)

Given its climatic contrast, with a dryer northern part and the more humid biomes in the south, forests in the CAR are very heterogeneous. FRA (2015) gives an area of 22.3 million ha, while a focus on dense forests (75 % threshold in GFW) gives an area of 7 million ha. Concessions are concentrated in the south-western part of the country and cover less than 4 million ha for a dozen of active concessionaires. Forests in the south-east are too landlocked and not rich enough in commercial species; they have never been exploited industrially. Protected areas account for only 247,000 ha.

Net deforestation is estimated at 15,600 ha annually by FRA (2015), but GFW gives much higher figures of 40,000 to 50,000 ha (for a 30% threshold) and almost 20,000 ha for dense forests (75% thresholds) (**Figure 8**). Timber production, dominated by sapelli (*Entandrophragma cylindricum*), is about 700,000 m³ per year, and sawnwood is dominant – although around 120,000 m³ of logs were annually exported in average, before the civil unrest hit the country for 2 years. Although modest in absolute terms, the forest sector contributes to 6.3% of the GDP and provides 40% to 80% of the export receipts (varying annually) (AFD, 2014). The forest sector is also the second formal job provider, after the Government, with around 4,000 employees. Informal logging is difficult to quantify given the span of the country, and partial estimates give a figure of around 130,000 m³ of illegal logs used annually.

Figure 8: Tree cover losses in CAR (30% threshold)



Source: GFW

The CAR has benefited from French support for the timber sector, with a Government's project preparing management plans for the concessionaires. However, the appropriation of such management plans by the concessionaires is questionable, and no one is currently certified.

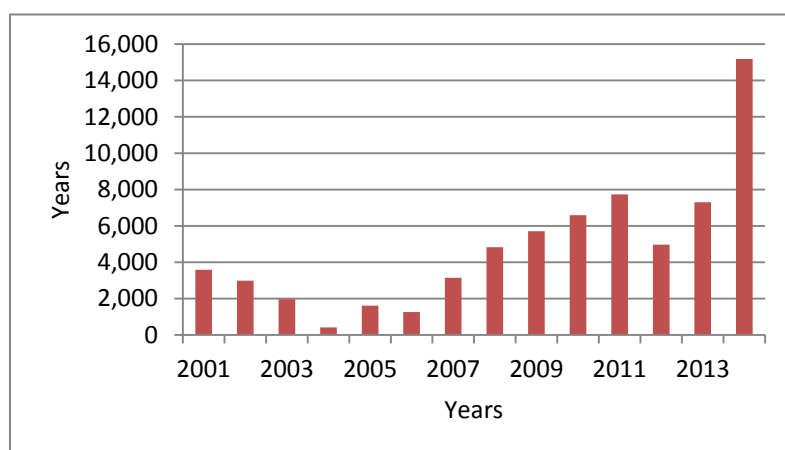
Given the unstable political situation, CAR lags behinds regarding the FLEGT and REDD+ processes.

Equatorial Guinea

According to the FAO, forests cover an area of about 1.58 million ha (FRA 2015) and GFW estimates tree cover of 2 million ha (75% threshold). Deforestation is estimated at 11,600 ha annually in average for the 2000-2015 period (FRA 2015), and a little below by GFW (**Figure 9**). The country has 274,000 ha in protected areas.

Forest exploitation in Equatorial Guinea is focusing on okoumé, and the sector is dominated for almost twenty years by a Malaysian company, a subsidiary of Rimbunan Hijau, for which many smaller companies have also commercial links with.

Figure 9: Tree cover losses in Equatorial Guinea (30% threshold)



Source: GFW

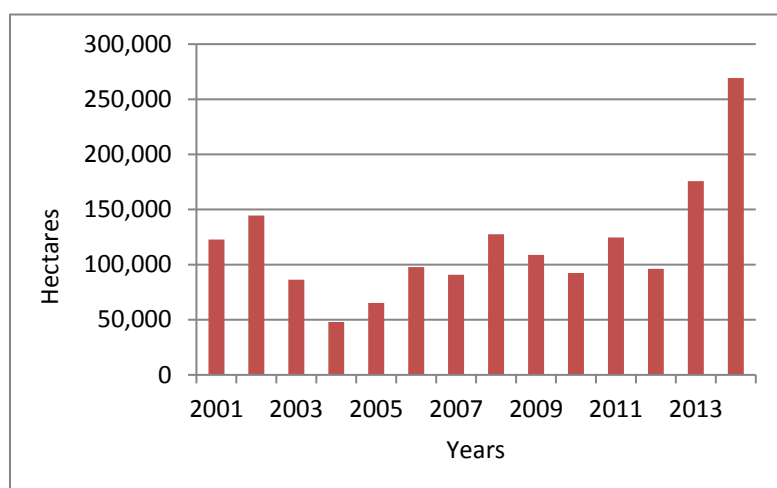
Log export is predominant, although the forest code stipulates that 6% of the production should be transformed locally. In 2007, a Presidential decree introducing a log export ban was issued, leading to the abandonment of concessions by companies, notably Shimmer. In 2008, the Government decided to cancel all the concessions and the productions collapsed (from half a million to 13,000 m³). In 2009, it was acknowledged that the decree will not be enforced; Shimmer came back and log exports (and production) resumed, although with lower volumes.

Equatorial Guinea became recently a wealthy country thanks to oil discoveries. Forestry is not significant in the GDP (around 0.3%) although its impact on employment in remote rural areas is not negligible. The country is only participating formally to forestry-related sub-regional or international events and information is sometimes difficult to gather, even though the situation improved over the past years on that respect.

Côte d'Ivoire

Côte d'Ivoire, a country highly forested in the 70's, experienced a severe deforestation the last 30 years. The dense forest has been lost with the exception of a couple of national parks, notably the one in Taï, in the western region. According to GFW, the area covered by dense forest (threshold 75%) is 511,000 ha. For FRA (2015), the forest area is of 10 million ha and the net deforestation rate is insignificant (400 ha/year in average for the 2010-2015 period). For GFW, tree losses are around 100,000 ha per year (for a 30% threshold) for the same period and were around 10,000 ha for a 75% threshold (**Figure 10**). Some of the differences come possibly from the 231 gazetted forests (*forêts classées*) which represent around 4 million ha, are highly deforested and degraded (although no official figure is provided by the Government, field visit and satellite images suggest that only little dense forest remains in these areas), but are supposed to be taken over by the forest administration. Such takeover and return of the "gazetted forest" to dense forests appears highly unlikely to most of the observers, given the perhaps one million farmers settled within these gazetted forests from which it is estimated that 20 to 40% of the cocoa produced in Côte d'Ivoire is derived (AFD, 2013).

Figure 10: Tree cover losses in Côte d'Ivoire (30% threshold)



Source: GFW

Protected areas account for 2.1 million ha, but with the exception of Taï National Park (540,000 ha), which is quite well conserved thanks to combined efforts of donors and the Ivorian management, these protected areas are also severely degraded and largely deforested.

The forest industry, once one of the most important in Africa, is rapidly shrinking, and survives essentially by targeting gallery forests and trees outside forests. It employs around 10,000 workers and is said to contribute to 1.7% of the GDP. This decline is likely to continue, given not only the depleted resource but also the fact that the new forest code (2014) gives the communities and the individual farmers the property of trees on their lands (providing they have a land certificate). A new relationship between farmers legally owning their trees and wood transformers will gradually be established, leading probably to the disappearance of the forest concessions.

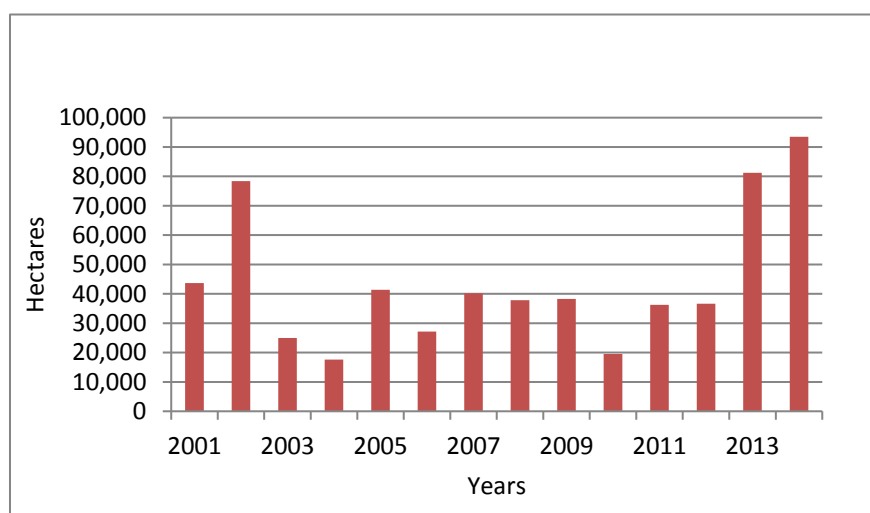
Côte d'Ivoire targets now reforestation, with an objective of reaching 20% of forest cover at national level "by 2018" – without precision on the threshold adopted (with FAO figures, forests currently cover almost 30% of the country). In the meantime, Côte d'Ivoire decided to articulate its REDD+ strategy on two pillars: encouraging "zero deforestation" private corporation initiatives for the agricultural commodities and preparing a national PES program.

Ghana

The evolution of the forest cover in Ghana can compare with Côte d'Ivoire, with a parallel decline since the 80's due to the very same main drivers of conversion: cocoa area expansion and other perennial crops. For FRA (2015), the forest area of Ghana is 9.34 million ha, with an average deforestation rate of 28,400 ha/year for the 2000-2015 period. For GFW, it is of 7 million ha (30% threshold) with an average tree loss of 40-60,000 ha/year, and of only 207,000 ha of dense forest (75% threshold) (**Figure 11**). Approximately 1.6 million ha are gazetted as forest reserves. A 2014 map of canopy cover of forest reserves in Ghana⁸ showed the degradation and deforestation of many of them.

⁸ "Assessing Forest Reserve Conditions in Ghana through Crown Cover Mapping": [/www.iucn.org/sites/dev/files/import/downloads/mapping_ghana_forest_reserve_condition_pre_publication_report_dr_aft_july_2014.pdf](http://www.iucn.org/sites/dev/files/import/downloads/mapping_ghana_forest_reserve_condition_pre_publication_report_dr_aft_july_2014.pdf)

Figure 11: Tree cover losses in Ghana (30% threshold)



Source: GFW

All trees and forests are vested in the president; in other words, they are held by the State in trust for the communities concerned. Although this implies that communities' legal ownership is not affected, in practice the State has control over trees and forest resources, even though communities and landowners are involved in forest management tasks (Boakye and Baffoe, 2007). Reforms of timber rights allocation as stipulated in the 1994 Forest and Wildlife Policy, most notably competitive bidding, have been only enacted and in general not implemented (Lund et al., 2012).

The forest sector is said to contribute to 3.5% of the GDP, and to employ directly 34,000 workers. Other estimates are much higher; for instance, the website of the Ghana Promotion Investment Centre⁹ says: "The formal forestry sector employs about 120,000 Ghanaians with employment predominantly in log processing industry", although this figure seems overestimated when comparing with countries such as Cameroon and Gabon with a comparable formal timber production. Companies holding timber rights consist of smaller logging companies without timber processing facilities and larger firms with various forms of processing facilities and vertical integration. Most of the domestic and part of neighbouring countries' demand for lumber is met by the artisanal operators (chainsaw lumber). Since 2004, the governments set an AAC level of 2 million m³, to be split between gazetted reserve and off-reserve areas. However, Hansen et al. (2012) estimated a total timber harvest of 6 million m³, taking into account the entire informal sector, meaning the total timber harvest is higher than what is estimated for Cameroon, a country much more forested. For Boakye (2015), "the annual average illegal logging for the period 2000-2011 among the formal sector in Ghana is estimated at 0.78 million m³ or 104% of the legal harvest".

In spite of these estimates, Ghana is generally considered as one of the most advanced countries in the FLEGT process and possibly a good candidate for issuing the first FLEGT authorization. The FLEGT/VPA signed with the EC does not require the domestic market to be fully included into the national verification system. According to the VPA, only "timber products for shipment" must be considered under the legality verification system, but "Ghana shall endeavour to verify the legality of timber sold on domestic markets" (p. 19 of the VPA). As for REDD+, Ghana prepared its REDD+ Readiness Preparation Proposal (R-PP) which was approved in 2010. Ghana's national REDD+ strategy (issued in 2015) will focus on avoided deforestation for the first phase of REDD+ and ambitions to significantly reduce emissions from deforestation and forest degradation by 40% over the next ten years.

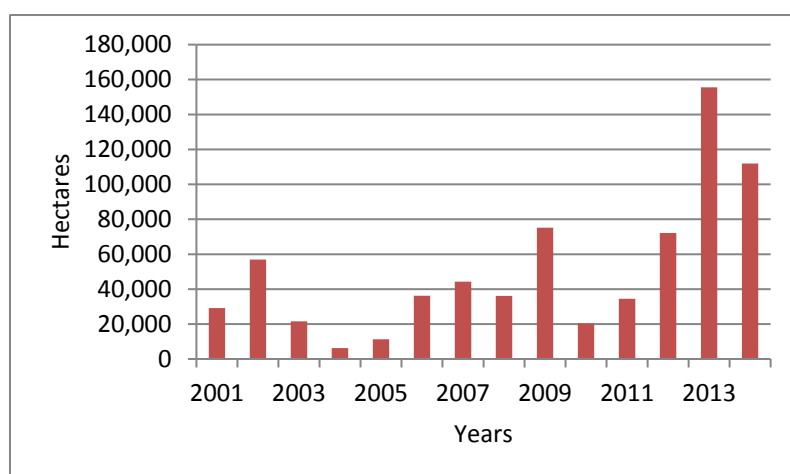
⁹ <http://www.gipcgghana.com/invest-in-ghana/sectors/forestry/investing-in-this-sector.html>

Liberia

According to FRA (2015), Liberia has 4.18 million ha of forest, a figure comparable to the one provided by GFW for the tree cover at 75% threshold (4 million ha, but 9 million ha at 30% threshold). Deforestation is estimated at 30,000 ha/year in FRA (2015), unchanged since 1990, which is well below the figures suggested for tree cover losses by GFW (escalating from 20,000 ha in 2010 to of 142,000 ha lost in 2013) (**Figure 12**). Protected areas cover almost 1 million ha.

During the periods of instability and civil conflict from 1980 to 2003, timber became a resource used for financing armed fractions, leading to a UN embargo on Liberian timber exports from 2003-2006. As a consequence, the activity declined and the timber export that, at the beginning of the 2000's represented 20% of the GDP, fell dramatically. In 2006, the President cancelled all forest concessions and the sector benefited from donors, such as the USA and the World Bank, support to reform the concession system and to ensure transparency. The industrial production and the exports slowly resumed in the past years, but the bulk of the supply on the domestic market is provided by the informal sector. The industry employs perhaps 3,000 workers.

Figure 12: Tree cover losses in Liberia (30% threshold)



Source: GFW

Over one million ha of forest was allocated as “Forest Management Contracts” (long term) and “Timber Sale Contracts” (short term) concessions, considered to be state-owned land, i.e. without recognition of private or community land title. However, the issuance of large numbers of Private Use Permits (PUPs) indicated a different approach to recognition of title in establishing forest concessions: the vast majority of PUPs were issued for communally-owned land, represented *a de facto* recognition of community land claims for the purpose of establishing commercial concessions.

Liberia is member of the FCPF for the REDD+ process and has concluded a FLEGT VPA with the EC.

D. The forest concessions in West and Central Africa

I. Industrial concessions

Initially, under colonial era, Western 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).

West and Central Africa have a long history with concessions given the fact the forest land is, formally at least, controlled by the government (except Ghana where it remains with the Stools) 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.

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 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. **Figure 13** indicates the location of the main concessions in Central Africa, while **Figure 14** and **Figure 15** give indications on the location of main concessions in Liberia and in the High Forest Zone of Ghana. No map of the “Forest Exploitation Perimeters” (PEF) is available for Côte d’Ivoire where there are maps only for the *forêts classées*, which are not concessions but managed directly by the State through a parastatal company.

Figure 13: A glimpse on forest concession areas in Central Africa

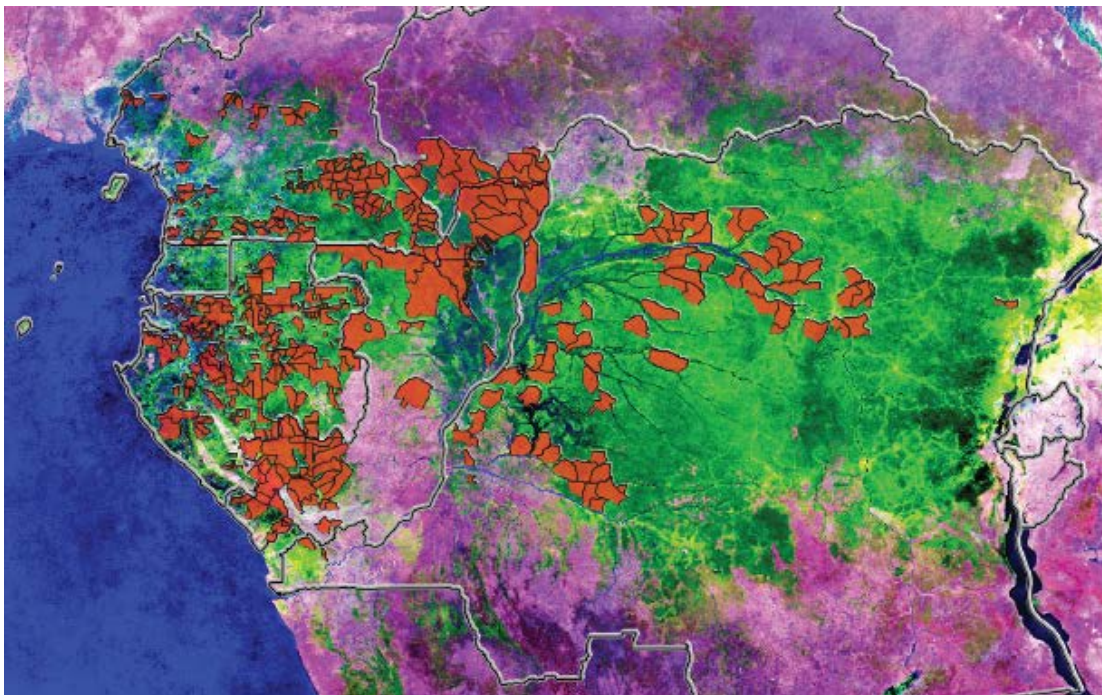
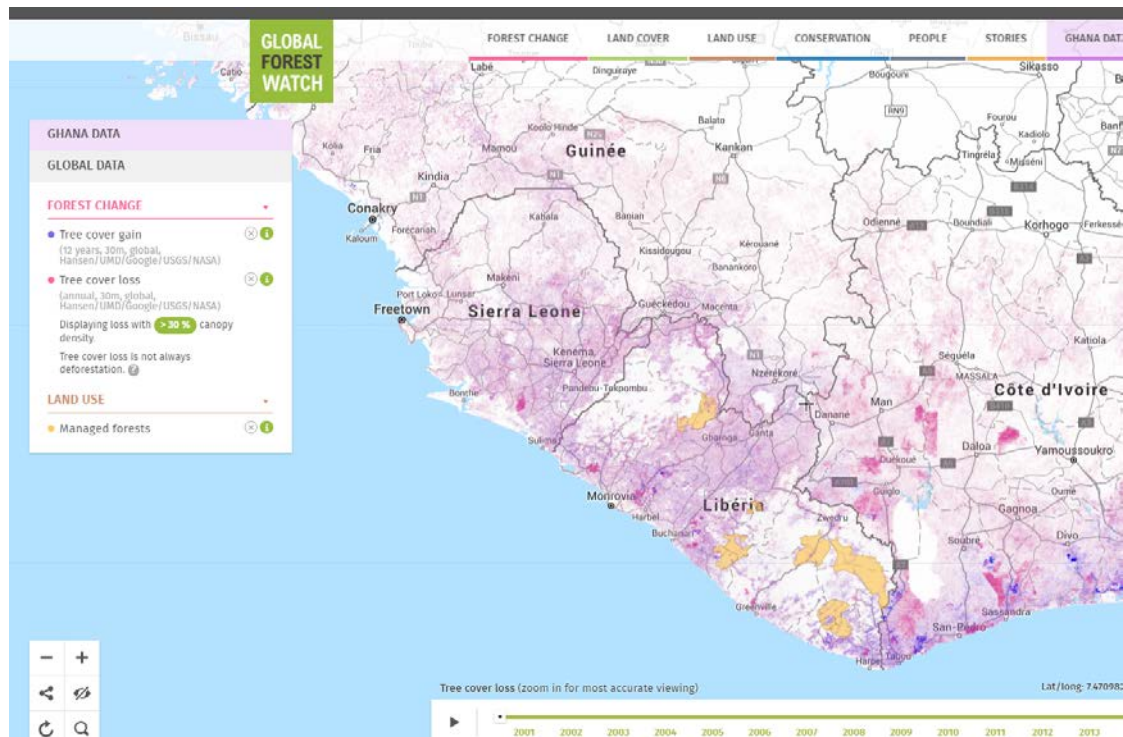
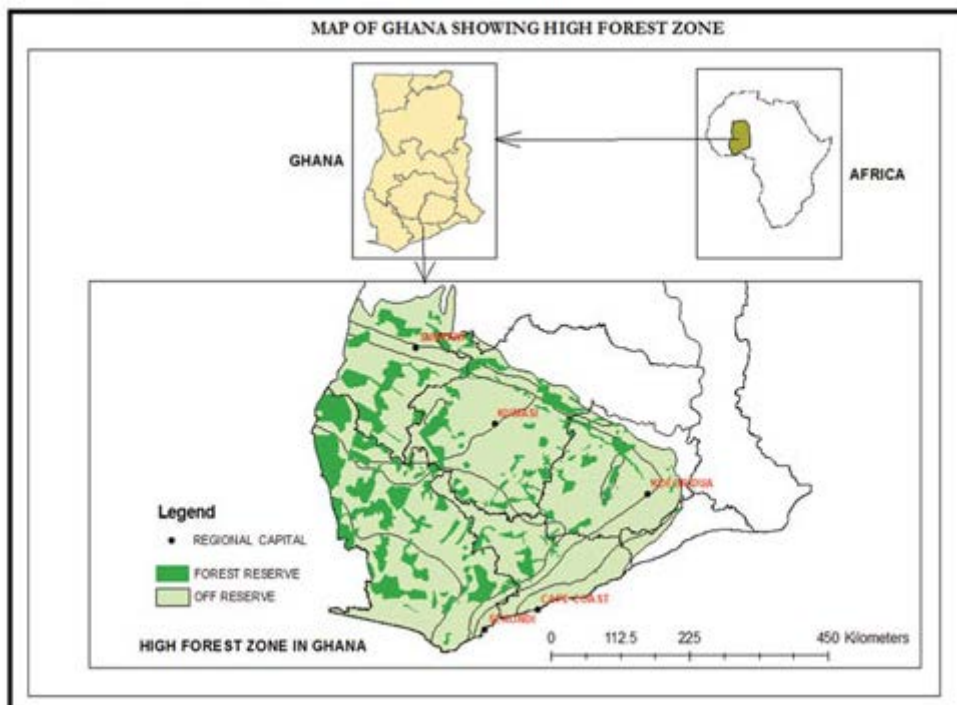


Figure 14: Forest concessions in Liberia



Comments from GFW about Fig. 13: “The Liberia logging concessions data set combines the boundaries of forest management contracts (FMCs) and timber sale contracts (TSCs), compiled by Global Witness from available government and contractual maps”

Figure 15: Map of Ghana showing high forest zone where concessions are concentrated



Source: Boakye, 2015

Table 1 is an attempt to quantify the areas covered. While the situation is quite well documented for Central Africa, it is certainly more ambiguous for West Africa and some choices have been made:

- For Ghana, only the Timber Utilization Contracts (TUCs) have been considered as concessions (long term objectives, specific commitments for the concessionaires).
- For Côte d'Ivoire, only the *Périmètres d'Exploitation Forestière* (PEFs) of the Rural Domain have been considered since the *forêts classées* are managed by the State through SODEFOR. But, as the PEFs cover an area of around 12 million ha mostly without forests, we have retained the figure of 700,000 ha which is the best estimate available for forest area remaining in the Rural Domain and covered by PEFs. This area is more consistent with the estimated formal timber production, which is around 1.1 million m³ per year (MINEF, 2014).

Table 1: Synthesis of the area covered by concessions and areas certified in West and Central Africa

		Concessions			Concessions with a management plan		Certified concessions (FSC or legal timber)		FSC certified	FSC certified as % of all conce-ssions	FSC certified as % of concessions with a management plan
		Area (ha)	Nbr.	Average area (ha)	Area (ha)	%	Area (ha)	% of all conce-ssions	Area (ha)	%	%
Cameroon		7 058 958	111	63 594	5 071 000	72	3 409 593	48	940 945	13	19%
Congo		12 600 221	51	247 063	4 671 691	37	3 061 243	24	2 478 243	19	52%
	North	5 822 597	14	415 900	3 504 159	60	3 061 243	52.5	2 478 243	42	71%
	South	6 777 624	37	183 179	1 167 532	17	0			0	
Gabon		14 272 630	150	95 151	7 181 420	50	2 435 511	17	2 053 505	14	28.5%
Equatorial Guinea		740 000	48	15 417							
CAR		3 058 937	11	278 085	3 058 937	100	0			0	
DRC ¹⁰		12 184 130	80	152 302	0		828 033	7		0	
Liberia		772 740	10	77 000	265 000 ¹¹	34				0	
Ghana		3 09 632 ¹²	60	50 029	767 000 ¹³	26				0	
Côte d'Ivoire		700 000 ¹⁴	380		436,000	62				0	
Total		54 389 352	901		23 870 917	44%	8 241 418	15%	5 473 393	10%	23%

¹⁰ This does not include around 650,000 ha attributed to 3 Chinese companies in August 2015 by a former Minister in spite of the moratorium on forest concession allocation in force since 2002. The newly appointed Minister in charge of the forests declared in July that these allocations will not be legalised

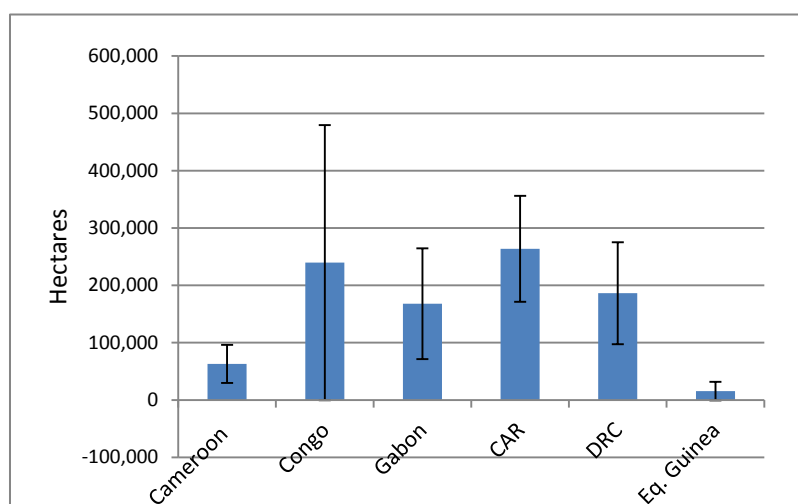
¹¹ Excerpt from FRA 2015

¹² Ghana has approximately 2.6 million hectares of forest reserve land, of which 1.6 million hectares falls within the so-called High Forest Zone. Of these reserves 715,000 hectares have been dedicated for natural timber production, with the remainder under protection and plantation development (Source: Implementing the Ghana-EU Voluntary Partnership Agreement: Annual Report 2012). According to an analysis made by Global Witness (2013) "*The Timber Resources Management Act of 1998, and subsequent amendments, only refer to TUCs and Salvage Permits. This clearly suggests that the only legal ways to access timber commercially are through TUCs and Salvage permits*". Timber Utilization Contracts (TUCs) for Forest Reserves have a term of 40 years, while TUCs for other lands have a term of five 5 years. In this report one considers only TUCs as "concessions". There were 60 valid TUCs (in and off reserve) according to a list published by the Forestry Commission (www.fcghana.org/news.php?news=57) in 2013 for an area of 3 million ha. TUCs in forest reserves represent 2.82 million ha but there are not fully forest covered.

¹³ Excerpt from FRA 2015.

¹⁴ In Côte d'Ivoire, forest exploitation permits (*Périmètres d'Exploitation Forestière*) in the "rural domain" cover a large area (12 million ha) but often without forests. These permits (there are around 380) allows for harvesting trees outside forests. It is estimated (source: *Rapport national sur l'aménagement durable des forêts en Côte d'Ivoire suivant les critères et indicateurs de l'OIBT, 2009*) that these permits altogether harbour around 700,000 ha of forests, although this figure seems high (and depend upon the definition of forest). One company has a management plan covering 436,000 ha. Gazetted forests cover 4.2 million ha (including 212,000 ha of planted forests) but are not "concessions" as they are managed by a parastatal enterprise (the SODEFOR). On these "*Forêts Classées*", 1.36 million ha are under management plan. Although these *forêts classées* are highly deforested or degraded as it is visible on satellite imagery, no recent estimate of the remaining forested area is available.

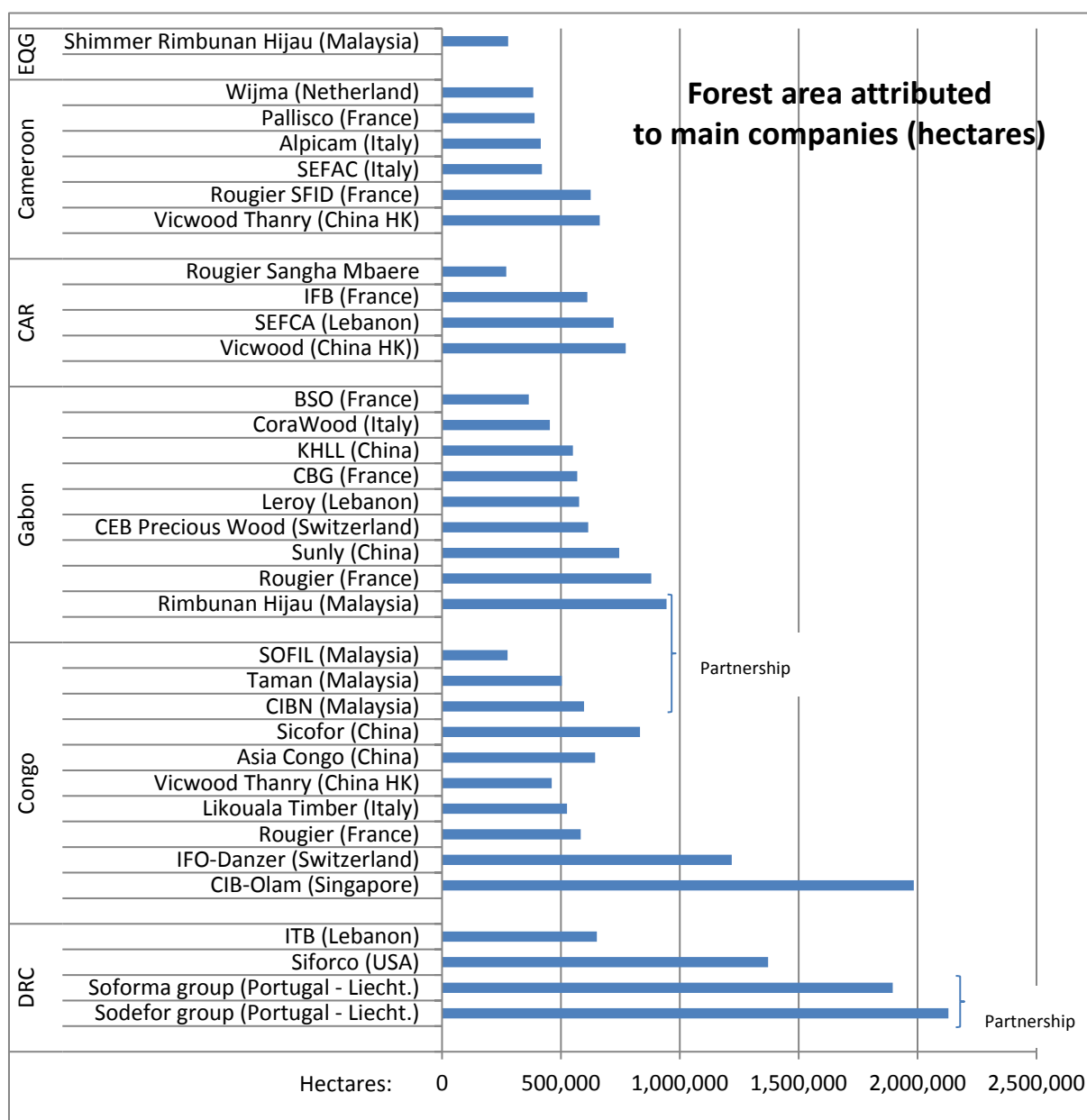
Figure 16: Average size of the Forest Management Units in Central Africa



Source: author, based on GFW data

Figure 16 does not reflect well the concentration of FMUs in the hands of large companies, something that **Figure 17** does it better.

Figure 17: Area concentrated by main concessionaires in Central Africa



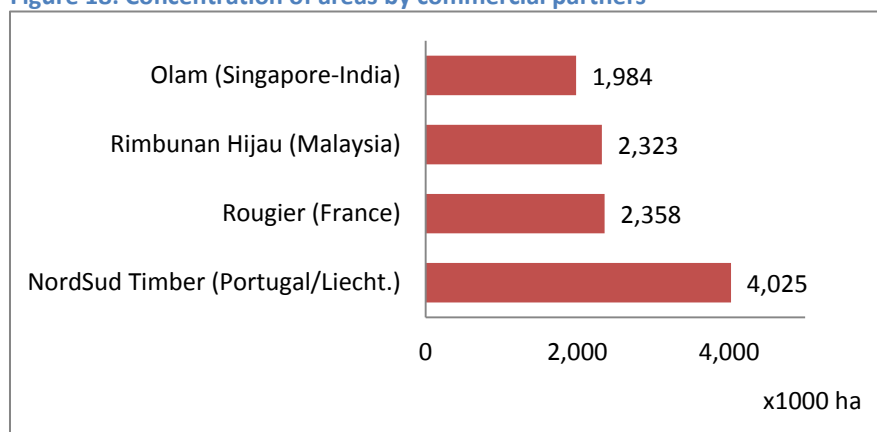
Source: Author, based on various sources

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 an industrial unit in a recent past. Some sources¹⁵ mention also strong commercial ties between Taman, CIBN, SOFIL and the large Malaysian company, Rimbunan Hijau.

If we consider these companies are partners, then we can identify a quartet of companies/partners currently exploiting very large areas, as reflected in **Figure 18**.

¹⁵ <http://fr.allafrica.com/stories/200104230099.html> for Taman and CIBN and http://afrique.lepoint.fr/economie/bois-du-congo-l-asie-s-installe-19-08-2014-1857851_2258.php for Taman and Rimbunan Hijau

Figure 18: Concentration of areas by commercial partners



Large foreign companies still dominate forestry in Central Africa. The situation is more balanced in West Africa, especially in Ghana and Côte d'Ivoire, where a majority of companies are African. 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 sometimes dependant of some foreign companies for the export (e.g. Congolese and Asian companies in southern Congo).

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 school and health care building or equipment, building local roads and bridges to facilitate access to villages, boreholes drilling and supplying of building materials to populations. In some cases, provisions are more extensive and those who benefit are not only 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 concession on land also used by 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 employment opportunities on an individual basis 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 health care centres;
- Contribution to local education through building or funding schools;
- Employment and training for young men from riparian 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 including measures deemed “conservative and repressive” by Doucet et al. (2002). These include 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.

Two other factors explain this evolution of specifications and the growing importance of social issues in concession-related activities:

- The implementation of long-term forest management plans that settle down concessionaires to a given territory;
- The development of forest certification in Central Africa.

Social provisions in specifications and some examples¹⁶

Specifications vary with national regulations, but it is frequent to find provisions for the below items. Some also provide examples of actions undertaken by companies, as illustrated below.

Housing for employees, with water and electricity supply. One particular question for the companies is the perimeter of delivery, namely whether the target population should be the entire neighbouring villages or whether it should be limited to company staff and their immediate families.

For example:

- In Cameroon, Pallisco decided to deliver electricity with half a dozen generators, but only to its employees living in a camp built near the small town of Mindourou. The same situation prevails for water: a fountain is available for the workers, but not for the inhabitants of Mindourou.
- Wijma also has a tap with clean water theoretically for all its workers at its base in Ma'an, although most of the company's workers are accommodated at the entrance to one of the company's concessions, *i.e.*, between 20 and 50 km away from town. However, Wijma provides electricity for six hours a day to the entire town of Ma'an, although again because of the town's remote location the generator goes unrepaired for weeks or end if it breaks down. The company has also built a waste disposal unit (albeit for its own waste rather than that of the town of Ma'an) and established a partnership with organizations specialised in recycling.

Schools for local population. School building and equipment, health care and sports facilities (mainly football pitches) form the bulk of social deliveries and are often planned for by contract specifications. In some cases, companies decide to hire teachers themselves to complete the educational team in existing schools. This often creates tensions between teachers hired by the company and others, namely those paid by the government or local council, especially as the former are paid higher and more regular wages.

For example:

- In Ghana, SAMARTEX is believed to have carried out a range of social deliveries in the education sector. The company has been running a nursery school with a capacity of 230 children since 1995, albeit with only 6 employees. The company also supports a primary school with 549 students run by the Ghana Education Service. The costs of the 11 employees are shared jointly by the company and the Service. SAMARTEX also provides material support to a college by sponsoring individual sports equipment, furniture, building construction and wages of teachers not paid by the State. Furthermore, SAMARTEX supports financially the best students and has designed an internship programme oriented towards management which lasts a minimum of 2 years, welcomes a dozen of students from the university, and allows the company to recruit skilled people. At the end of the programme, the best students are offered a manager's position within the company. In addition, SAMARTEX has created a football club for young people as well as the 2,000 employees of the company site in Samreboi.

¹⁶ With excerpts from Jégou, Karsenty and Singer, (2008)

Health care: The health of employees in forest concessions is affected by a number of infectious diseases, particularly HIV/AIDS. In regions with few economic activities, the arrival of a timber company tends to attract many immigrants, including prostitution which has been known to develop rapidly under such circumstances. Truck drivers commuting between large towns and forest sites are vectors of the disease. Beyond legal obligations, companies are directly concerned by this situation which also has a significant impact on their own labour force. Skilled employees with higher wages and thus disposable income are particularly exposed to contract HIV, an issue which thus affects directly the companies' interests.

For example:

- In Congo-Brazzaville, CIB is without doubt the most advanced company regarding health care. It has its own programme to fight HIV/AIDS which includes regular awareness-raising campaigns and free condom distributions. The Pokola health centre (locally known as the "hospital") is reputed as being the most efficient of all of northern Congo. CIB is the only company equipped for delivering on its own antiviral treatment, tri-therapy and HIV screening. The centre has two machines to detect T4 lymphocyte loads in the blood. The company also claims that the "hospital" is home to an operating theatre and latest Dutch material. 8,000 persons currently use the health centre and access is not solely restricted to workers and their relatives. Workers are requested to bear 15% of the treatment costs.

Food: One of the deleterious impacts of logging on the forest environment is the increase in poaching favoured by road construction for timber transportation. With the sudden concentration of workers and their relatives in forested areas, hunting pressure increases significantly. In some regions there are signs that wildlife has been seriously depleted, which deteriorate the livelihoods of local inhabitants who depend the most on forest products, especially Pygmies. To address this issue and control poaching inside concessions, companies have begun supplying their workers with sources of protein and some initiatives have been undertaken to develop local food production and animal breeding.

For example:

- In Cameroon, Wijma has introduced a carrot-and-stick approach to fighting poaching. The company claims to have eradicated poaching among its staff with an extremely strict policy of firing anybody caught with bushmeat (although some reports confirm that timber prospectors often kill and eat wildlife *in situ* – an activity which is much more difficult to monitor). In terms of "carrot", Wijma has set up a shop (*économat*) which sells chicken, frozen fish and basic foodstuffs (such as oil, rice and flour). Fish and chicken is reserved to workers only but according to some employees, prices are high and the shop, which is located in Ma'an, is difficult to get to for those who are housed outside town near the entrance to the concessions. Wijma has partly solved this issue of long distance by providing its staff with a couple of trucks equipped with benches that run along the main roads to Ma'an, but these do not run at all times. Once in Ma'an, workers often need to find shelter in town for the night before returning home the following day. The company is also promoting alternatives to bushmeat among local populations and has been organising training workshops on breeding chicken.

Roads: Road construction and maintenance is a frequent request of populations in forested areas. In the near absence of government authorities, villagers look to the companies for this type of infrastructure. However, many environmental NGOs point out that roads are associated with deforestation and large-scale poaching. National legislation often stipulates that temporary roads must be closed once logging activities are finished in a given area, which often goes against the will of local populations. Companies have thus struck various kinds of compromise between these two contradictory requests. In Congo-Brazzaville, for instance, CIB maintains main roads

after the end of logging activities, whilst secondary axes are only maintained if specific villages benefit from it.

Working conditions: Rougier's companies in Gabon, Cameroon and Congo-Brazzaville carried out a risk analysis for each type of job. In the Gabonese company (ROG) workers wear "IPE equipment" (Individual Protection Equipment) and security staff check the proper use of the equipment on each site. Security training (first aid, tackling fires...) is also part of company policy. A vehicle is said to be available full time for evacuation. In Gabon, CEB has a training programme for workers covering risks linked to felling trees and fires in the wood processing unit.

Whilst the situation has undoubtedly improved in some large companies – especially those which have undertaken a certification process – (**Box 2**), limited information is available for medium-sized enterprises and a number of large companies. In addition, subcontracting for logging and other risky and dangerous operations is quite common, yet these employees have yet to benefit from the same improvements in working conditions that fully-fledged staff of many concessionaires now enjoy.

Box 2: Two socially advanced companies in Gabon and Congo

In Gabon, CEB-Precious Wood has spent around USD 3.4 million in social investments since 2001. This encompasses:

- Building houses for the employees and their families, but also the teachers assigned in "CEB school" by the government
- Distributing mills for cassava
- Building and maintaining schools and health centre
- Provide generators, etc.

Agriculture has also been developed jointly with local farmers through pilot plantations of cocoa and bananas granted to village associations later on. For the primary school, up to 600 children are trained. The company discusses with the academic authority the skills of the assigned teachers. Certification auditors compare the results of the "CEB School" with other schools of the region. The company provides also busing for students through a contract with a transport company.

In Congo, the CIB-Olam (formally French, German, Danish, then taken over by Olam in 2011), has been requested by the Government to ensure food security for employees and their relatives, which amounts to sustaining a large part of Pokola's town (14,000 inhabitants). Several agricultural projects have thus been undertaken. One such project called PROGEPPP involves breeding programmes for a number of animals such as snails, pork, duck, etc. Attempts to develop cattle breeding amongst the wider population have also been made, but it resulted in failure, and projects to breed smaller animals have also met with mitigated results. This is mainly due to the fact that there is no tradition of breeding within these local populations which are traditionally oriented to hunting and gathering.

One of the originalities of CIB's actions is the widespread use of a GPS by the Mbendjele to identify trees and forest sites that are important to them to prevent them from being logged, such as hunting and foraging grounds, water sources, burial places, sacred sites and sites of economic and cultural value. This initiative was related in an article in *Nature* by M. Hopkins in July 2007 (vol. 448, pp. 402-403) as follows:

[Anthropologist J. Lewis, committed by TFT,] designed a set of electronic icons to help the Mbendjele record the locations of important sites using a portable, palm-pilot-style device. The simple pictorial menu allows the pygmies to identify different types of sites as they wander through the forest; the sites are then automatically plotted onto a computerized map with GPS. The Mbendjele choose from four categories to classify their important sites: hunting, gathering, social/religion and farming. From there, each category branches off into more specific details. For instance, to signify the importance of a sapelli tree, one would select 'gathering' and then 'caterpillars' from the next list of choices. Similarly, the system can log areas where yams grow, where herbal medicines are found, and where the Mbendjele camp while travelling through the forest. The results can easily be plotted on a piece of mapping software such as Google Earth. And the pygmies know the terrain so intimately that they have no problems visualizing it as depicted from a birds-eye view on a map.

The situation of CIB vis-à-vis its social surrounding is comparable to the practices of large industrial firms in the 19th century in Europe, where many aspects of social life were determined by the company itself. CIB has built

houses and claims to house its employees and their families free of charge. Materials used today are of better quality and bricks are gradually replacing wood.

Yet so far only 600 employees have benefited from this measure and twice this number is still waiting to be housed in similar conditions. Houses are supplied with electricity and running water. For those who have not yet been granted a house, CIB has built new water access points for 7,000 inhabitants which is roughly the number of workers and relatives entitled. Despite the specifications set by the Government mentioned above, the company is reluctant to go beyond these existing measures and providing for the rest of Pokola's population. In its defence, CIB representatives say the company is unwilling to act as a "substitute to the Government". In fact, CIB is already largely a substitute to the Government in many respects: in his paper on the role of CIB in Pokola, Carret (1998) described how the company owned most public facilities in town in the 1990s, including a jail. By using this argument today, the management is aware of the growing financial cost of these demands and try to bound the expenses.

II. The debate on the negative impacts of concessions

At the beginning of the 21st century, forest concessions were in a state of flux. One does not discuss here the critique of "conservationists" (scientists and conservation NGOs) related to logging in natural and ancient forests since logging can be practiced apart from the concession system. There is also a specific criticism against industrial logging, which draw a line between an alleged sustainable logging that is (or could) be practiced by communities and an industrial logging associated with the concessions, allegedly unsustainable as it requires heavy equipment (bulldozers, etc.). This assertion seems to be based on common sense, but existing community forests where logging is practiced in Central Africa do not have convincing records with respect to the quality of forest management, as several reports have stated (see **Box 3**).

In Central Africa, some authors argue that concessions have failed to reduce poverty (see Counsell, Long, & Wilson, 2007). This argument has some consistency when one sees the poverty in forest areas and compare with the, sometimes, strong economic impact of oil or gas extraction for the local populations, in terms of potential of redistributed royalties (providing the governments adopt an active policy to ensure redistribution). But it is also known that reliance on highly valued natural resources when the institutions are weak often leads to what is called the "resource curse". Yet, one can wonder whether the critique of the forest concessions is specific to the concessions or can apply to any extractive industry in a context of ineffective / weak institutions. In addition, the benefits made by forest concessionaires (i.e. what could be redistributed) cannot compare with the potential benefits yielded by the mining activity or oil extraction (when prices are good). It is usual to see companies declaring negative financial results at the end of fiscal exercises – even though it is also known that there are various means to reduce the apparent benefits, including transfer pricing. But different signs suggest that many forest concessions in West and Central Africa are not that profitable, at least for those who comply strictly with the public regulations (and, for some of them, with the additional requirements of forest management certification) as many forest concessionaires are seeking more or less actively buyers for their concessions, and the recent withdrawals of big players (Olam in Gabon, Danzer in DRC, DLH in Congo...) tend to indicate that this is not an easy or highly profitable business.

The emphasis on public and private actors, often at the expense of local populations, and the growing nongovernmental sector has been a strong target of criticism. Critics have not only pointed to the theory of concessions but have relied on a wealth of historical evidence to support their views. Indeed, examples abound where local populations were marginalized and/or abused within concession-based systems, such as in Coquery-Vidrovitch's (2001) account of concessions in French colonial Africa in the early 20th century.

Concession-based systems are often picked up on the idea that rights and responsibilities are delegated from the public to the private sector. This is where the large size of concessions in Central Africa comes into play: although justifiable from an economic viewpoint, this aspect is often used to

put forward the image of concessions as a relic of colonialism from a historical perspective. Thus, large forest concessions have been often portrayed as “states within the State,” even though in many countries the concessionaires are unable to oppose the more and more evident governmental policy choices in favour of agribusiness, sometimes impinging well-established forest concessions, not speaking of mines and oil extraction.

Concern for the well-being and interests of local populations only came to the forefront of discussions on forest management since the late 1980s, with the growing popularity of community-based (rather than State-led) development ideas. At the same time, the nongovernmental sector grew exponentially in size, leading to the staggering array of environmental, social and advocacy NGOs that colour the political landscape of forestry today. These NGOs not only defended the interests of communities, but also argued for an official role for themselves in forest management. And it is a matter of fact that large forest concessions can prevent the development of self-administered community forest, at least given the current prevailing conception of the community forestry and industrial concessions as two mutually exclusive land tenure entities. But this is currently beginning to change, and this report provides recommendations to deepen and give a better consistence to this process.

On the other hand, the social demand for community forests (designed as community concessions, see next section) is variable across countries, and often the demand is for agricultural land, not for forest to be managed on a communal basis. Attitudes of the local population vis-à-vis the industrial concessions are ambivalent: perceived as potential competitors for some resources, they are also seen as opportunities for getting various economic and social advantages (Joiris and Bigombe-Logo, 2010). Therefore, relationships are still “in tension”, where the renegotiation of previous agreements reached is also favoured by the sometimes fragile internal cohesion of the communities that gives opportunities for individual one's upmanship.

Box 3: Small-scale enterprise as alternative to industrial concessions?

In an IIED Discussion Paper focused on Guyana's forest sector, Mendes and Macqueen (2006) suggest the promotion of small and medium enterprises alongside the use of "portable technology" as an alternative to large-scale concessions and an *"industry (...) concentrated on high volumes, low revenue primary products such as logs or large sawn baulks"* (p. 18). They advocate less "vertical integration" and more "specialisation" that could bring more value-added to the timber production. One knows that small-scale logging and processing generates much more work than large industries concerned by productivity gains. But could such a "small-scale strategy" work for West and Central Africa, where vertical-integration and large-scale concessions are going hand-in-hand?

Currently, portable technology is used by chainsaw loggers to make wood boards sold mainly on the local market, and sometimes exported. Such activity has 3 characteristics:

- The forest is more high-graded by chainsaw loggers than large concessionaires. As underscored by specific studies in Cameroon, DRC and Congo (Cerutti and Lescuyer, 2011; Lescuyer, Cerutti et al., 2014; Lescuyer, Yembe-Yembe and Cerutti, 2011), small-scale loggers concentrate on higher value species, since they are mobile and can look for a bundle of species without the spatial constraints entailed by a forest management plan. This is contradictory with the efforts aiming at reducing the pressure on highest value species (which are generally over-exploited) and a shift towards less-used species. This shift is being tried by several industrialists constrained by the reduced AAC entailed by the implementation of forest management plans, and further accentuated by the certification requirements.
- In addition, recovery rates are low (Cerutti and Lescuyer, 2011), since the main difference with the industrial wood processing is the making of the board in the forest with the chainsaw itself (very low recovery rate) or with a mobile saw (such as Lucas Mills). In the last case, the recovery rate on the main product (the standard sized FAS board) can compare with the industrial one, but there is no use of by-products (from the "wastes") which makes all the difference between the common recovery rate of 30-35% and a 50-60 % corresponding to the combination of main-standard size board and by-products such as non-standard board, moulding, pieces for flooring, etc. Let's add that veneer peeling industry needs logs transport and is not compatible with portable technology. In countries such as Cameroon, CAR, Congo and DRC, more investments in veneer peeling industry would help diversify the range of harvested species in response to the reduced AAC on managed forest.
- Due to loopholes into the legal frameworks in West and Central Africa, illegal is, in general, synonymous with informal. That means that small-scale loggers escape many of the formal taxes – even though they are pressured with non-official taxation by the official agents – and are outside of the salary system (no social insurance, etc.). Such a situation could be reversed, but it would need a radical change in public policies and also a substantial decrease in corruption which plagues the administrative system from the top to the lowest level.

Since most of the forest sector in West and Central Africa is export-oriented, with a significant part of the production (in value) still going to Europe, the issue of "environmental norms" – which includes legality requirement – should not be underestimated. And small-scale logging and processing is, currently, unable to meet these escalating requirements. Admittedly, these current handicaps can be overcome in the future thanks to pro-active training and technical support policies, combined with a complete reorganisation of the credit system and a radical change in the law and administration practices, and there are certainly valuable policy actions that ought to be undertaken without delay, but one knows that willingness for reforming is not always evident in Africa.

We can also add that to promote small-scale entrepreneurship, one needs entrepreneurs. And here the country situation is contrasting. In Ghana, Côte d'Ivoire, most of Cameroon and in some parts of Congo, there is such a potential; but in northern Congo, CAR, Gabon and in many parts of DRC, the density of the social and economic activity and capital is low. Small-scale enterprises are not very adapted to landlocked, low population density, remote markets and high transportation costs, and it is difficult to imagine that governments would give up the benefits (fiscal, induced development effects...) granted by the large concessions. Then, a realistic agenda would focus more on helping the small-scale sector to be "decriminalized" and getting more efficient to complement the large scale industry (especially for supplying domestic markets) than to believe they could be an alternative in the short term – and even to longer term in certain areas.

III. Community forestry under concession regime

Community forests are often organized on the model of the concession, with exclusive area for exploitation of a given resource and specifications. Cameroon stands for the oldest experience of institutionalized community forestry in Africa (since the end of the 1990s). The outcomes are not convincing, due, on one hand, to all the red tape imposed by the administration, and, on the other, of the difficulties of collective action in Cameroonian villages (Cuny et al., 2004, Vermeulen et al., 2006; Julve et al., 2013). Corruption prevailing in the country is an aggravating factor. Gabon has also allowed for community forestry since 5 years, but only three community forests have been recognized so far. Here too, difficulties of collective actions are reported in villages, in which individualism is important. The Forest Code under preparation in the Republic of Congo would allow for community forestry, but specific modalities are still to be decided. Other countries (e.g. Equatorial Guinea, Ghana...) have specific categories of tenure resembling community forestry, but without specific privilege of exploitation for a given resource; therefore, they cannot be considered as concessions.

As opposed to Latin American countries where indigenous communities are socially recognized and settled on specific territories, the so-called indigenous peoples in Central Africa are much less numerous and were until recently not recognized politically as a distinguishable component of the “national community” (Bahuchet et al., 2001). In Latin America, this better recognition has led sometimes to recognize ownership rights to communities. This was not, and is still not, a policy option endorsed by governments in Central Africa.

With recent evolutions in the international regime of indigenous peoples at the UN, the political attention paid to indigenous communities is gradually changing, notably in Congo (Rep.) where the Government decided to address the issue in high-visibility meetings. The Pygmies-related communities themselves were reputed “nomadic” or, at least, not attached to specific territories. This also has changed gradually and more territorial relationships have been established in that respect. But the situation of “subalterns” faced by many Pygmies communities in their social relations with their Bantu villager’s neighbours (Bahuchet, 1993) has not facilitated the emergence of indigenous community forestry.

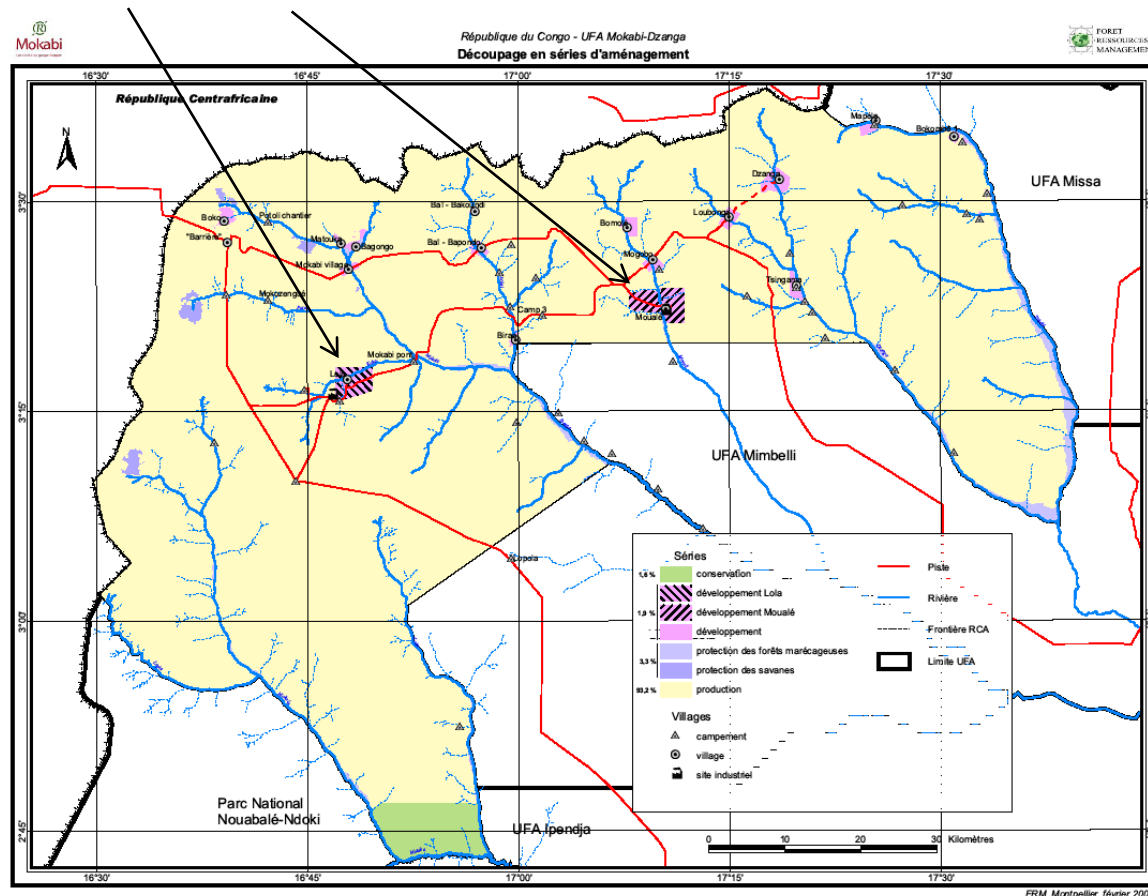
The UK-based NGO Rainforest Foundation and its local partners have already mapped thousands of hectares of “customary territories” (including Bantus) throughout the Congo Basin (www.mappingforrights.org/). Within the framework of forest management certification, some companies (e.g. the CEB-Precious Wood in Gabon) have started mapping the customary territories overlapping the industrial concessions (see **Figure 19**) and using such maps as a key for benefits sharing, with local investments decided jointly with communities and proportionate to the area of customary territory overlapping the industrial concession.

[illegible]

A new generation of forest regulations calls for benefits sharing with “riparian” populations (Cameroon, Gabon), and/or for establishing “community development series” within the industrial concessions (Congo).

The “community development series” (SDC) implemented in concessions with management plans in Congo (in the northern region, so far into 9 FMUs) are limited areas around villages within the concessions which have been mapped during the preparation of the plan (Schmitt and Baketiba, 2015). These areas are defined with respect to the number of inhabitants and the importance of agricultural activity. In the FMU Pokola in the CIB concession, these SDC represent 6% (26,950 ha) of the FMU area. In another concession (Mokabi – Rougier group), the SDC represents 1.9 % (10 934 ha) of the FMU (**Figure 20**). These SDC have been created by a regulatory text in 2007 and are part of the forthcoming new forestry law.

Figure 20: Community development series in the Mokabi (Rougier Group) FMU in Congo (Rep.)



Source: FRM and Mokabi (Rougier Group)

In those areas, villagers are allowed to develop agricultural activities, hunting and timber harvesting for local needs (that means, commercial hunting and logging are prohibited), breeding, etc. The area is not an “enclave” within the concession since the company can still exploit timber there but it has agreed with the communities a payment of 1,000 FCFA (USD 1.7) for each cubic-meter harvested in the area - and up to double that amount for certain species, as in the case of CIB-Olam. In one concession, the payment is delivered in cash to the villagers; in another one it is transferred to a “Development Communitarian Fund” (FDL) for financing small projects chosen by the villagers¹⁷. FDLs are supervised by a “Concertation Committee” whose composition is fixed by administrative regulation with all the “stakeholders” (including all local administrative authorities). They are funded by a mandatory contribution of 200 FCFA (USD 0.35) for each cubic-meter harvested annually on the entire FMU.

Initially, those funds have been decided as a response to the request of the certifying bodies, and it has been expanded through different regulatory documents and as part of the FLEGT legal framework in Congo. A couple of studies have been devoted to these FDL (Morand, 2013; Barros 2013; Rickenbach, 2013), which detail the difficulties for using these funds to promote a sustainable local development. Difficulties are related to the capacity to design realistic and sustainable small projects (and projects are often imposed by the administrative authorities or, at least, strongly suggested), resulting in a limited absorption capacity of the available money. Other difficulties include the lack of technical support for agriculture and livestock-raising which has to do with what is referred to as “collective action”, the capture by the local “elites” of advantages and the frequent

¹⁷ In addition to the 200 FCFA (USD 0.35) for each cubic-meter harvested annually on the entire FMU that must be transferred to the FDL according to public regulations.

failure of projects requesting cooperation of villagers (free-riding and mistrust are frequent). Lastly, when no distinction is made between the so-called “villagers” (Bantu people)¹⁸ and indigenous people (“Pygmies”), the latter are often discriminated in the equipment distribution and other advantages. The current trend is to consider distinguishing those project proposals for indigenous people and for “villagers” and to try to individualise (at the household’s level) the initiatives/micro projects supported by the FDLs (Schmitt and Baketiba, 2015).

The dual dimension of the community forestry in DRC

In the DRC, the 2014 decree organizing community forestry paves the way for a dual conception of community forestry with the distinction between the “forest of the local community” (that is the customary territory that can overlap with industrial concessions) and the “community concession”, this latter being potentially a subdivision of the former but associated to an exclusive area (Vermeulen and Karsenty, 2014). (**Box 4**).

If really managed by the public authorities and by the industrial concessionaires as foreseen in the forest code, the concept of “forest of the local community” can be a promising option for benefit sharing (communities receiving some portion of the timber revenues proportionally to the share of their customary territory encompassed into the industrial concession).

Towards a revisited conception of the interactions between industrial concessions and community forestry

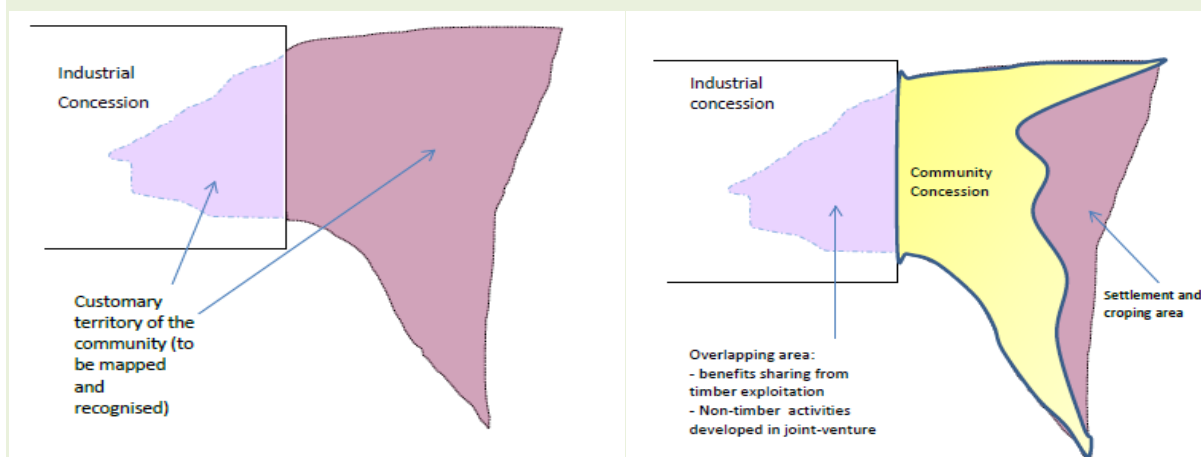
These dynamics, if deepened and handled by public policies, may trigger a transformation of the concession system in Central Africa towards the recognition of overlapping rights associated with different “institutional layers” on the same area. The overlapping areas might not only be a key element for benefit sharing, but they could also become joint management areas (keeping some parts out of the exploitation and for controlling potential encroaching of outsiders) for the development of non-timber economic activities in joint ventures between the industrial concessionaires and the various communities, and having those overlapping rights recognized by the legal frameworks.

As for community-based concessions, allowing for exclusive rights by moving the industrial concession boundaries in order to make room for viable small-scale enterprises might be the second part of the case for promoting joint management, associating overlapping and exclusive rights for communities. Gazetting of Forest Management Units, not yet completed in Central Africa, could provide the opportunity for such moving of boundaries when needed.

¹⁸ In reality, the so-called “Bantu” and “Pygmies” are often settled in the same village, but it is common to distinguish the “villagers” and the indigenous people (not really nomadic any more), also called “Pygmies” – a generic name for several ethnic groups.

Box 4: Acknowledging and managing the dual dimension of community forestry

Conceiving all tenure categories on the same plan leads to dead-end discussions and conflicting outcomes on the ground, as the possibility of viable community forestry entails a more or less profound dismantling of the industrial concession system - an option unlikely to be accepted by governments looking for fiscal receipts, exporting industries and structured employment.



A compromise could be if instead of opposing the two dimensions, the stakeholders integrate both the customary land tenure (the “forest of the local communities” - the “*finage*” in Gabon and Cameroon), a category that could overlap with other tenure such as the industrial forest concession and protected areas, and an institutional innovation (already mentioned as such in the DRC forest law): the community concession. With the exception of provisions to avoid private appropriation of the collective heritage by the customary Chiefs, there is no need to regulate the customary land tenure (A + B, in the below graph is the *finage*), but a political interest to map and recognise it, notably for co-management of shared resources and benefits sharing – as in Gabon and other countries. On the other hand, the community concession would be an exclusive tenure (B will be its maximum size¹) designed within the *finage*. Its productive nature would call for an elected body accountable *vis-à-vis* those who have entrusted them for managing a collective enterprise.

The debate would be much easier if the stakeholders agree on the dual dimension rather than to keep the community forestry on a single plan: as the *finages* are overlapping with other tenure categories, there is no need to cap them in surface; on the other hand, the community concessions would be limited by the boundaries of the other legal tenure entities, such as the industrial concessions. Boundaries of those last could be deemed misplaced and impeding the possibility of a viable community concession; in such a case, negotiations could be organised by the forest administration and the provincial authorities to reshape the industrial concessions boundaries, existing or planned.

Overlapping areas could be an opportunity for partnership between communities and the industrial concessionaire for developing economic joint ventures based on NTFPs and/or agroforestry, recreational hunting, plantations of cash crops in degraded areas and control of the potential outsiders.

IV. Recreational hunting concessions

Recreational hunting was practiced during the colonial period in DRC, which was then Zaire. Fifty-seven concessions were granted to private hunting clubs. There are 19 or so hunting concessions still operational, even though they no longer welcome official hunting tourism. It is only in 2003 that new hunting concessions were offered for lease, including some of the existing concessions. Three private companies were interested in leasing hunting concessions in 8 sectors, totalling a surface of close to 90,362 km² for a hunting season. Nevertheless, it is difficult to obtain reliable information on the nature, the functioning and the results of this activity.

In Congo, the last and unique private hunting club stopped any tourism activity in 2000. It operated near the Nouabalé-Ndoki National Park, on the FMU of Kabo, in the CIB logging concession. This company had signed a draft agreement with the Ministry of Forest Economics (MEF), the NGO Wildlife Conservation Society (WCS) and the CIB, within the management plan of the peripheral zone

of the National Park Nouabalé-Ndoki. Yet, hunting activities have been forced to stop since MEF stopped giving out quotas for Bongos (a large forest antelope).

In CAR, 48,621 km² (4.86 million ha) are “domaines de chasse sportive” and an additional 30,134 km² (3.01 million ha) are community-managed hunting areas, mostly in the northern part of the country. In 1990, in the southwest of the country, three sectors have been assigned for hunting in the Dzanga-Sangha Reserve, which is a zone of closed rainforest.

In certain hunting regions, waterside communities received a small portion of the total amount of taxes paid by hunting clubs, which was at the most 10 % of the felling tax and 10% of the area tax. Furthermore, these taxes are not properly distributed by the government body in charge, and in numerous cases the taxes are paid to the villages. The rent is captured at an intermediate level, meaning that local populations fail to receive benefits from the hunting tourism industry. The feelings of being taken advantage of that arises in such cases, creating opposition against hunting clubs (Roulet, 2005).

But the new trend seems to be the development of recreational hunting in timber concessions. In Congo, an agreement, encouraged by the Government, has been concluded between the CIB-Olam and a company called “Congo Hunting Safari” for proposing safaris on a portion of the Kabo FMU (296,000 ha)¹⁹. Another deal is to be concluded soon and could pave the way for an evolution of the concession regime with a joint commercial use of different resources overlapping on the same territories.

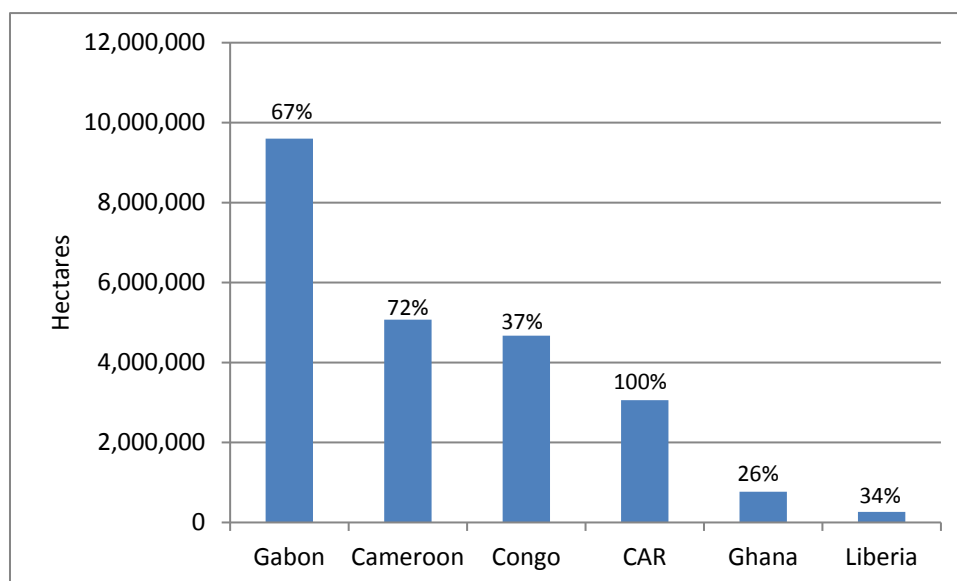
E. Managing the concessions²⁰

Management plans are mandatory in all surveyed countries and their implementation should be seen 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 plan and many do not implement it at all. **Figure 21** provides available data on the area under management plans.

¹⁹ Before this agreement, the situation was conflicting since the Government granted safari rights to “Congo Hunting Safari” on a portion of the Kabo concession without the agreement of CIB-Olam. This intrusion of Hunting Safari into the FMU led to the suspension of the FSC certificate of the FMU and this agreement led to an end of the sanction.

²⁰ For other details see comparative table in the appendices

Figure 21: Area and proportion of concessions with a management plan (in hectares and % of total attributed concessions)



For Ghana and Côte d'Ivoire, there is no database giving a complete overview of the status of forest management, but large societies such as Samartex in Ghana and Improbois in Côte d'Ivoire comply with national standards. Samartex is certified for "FSC chain of custody" and Improbois is certified "Origine Légale des Bois" (OLB), both being legality and traceability certificates.

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 market demand, and (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, and is often around 4 - 8 m³ (0.5 tree per hectare) – for instance in the DRC. This corresponds approximatively 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 RIL practices (even though these have 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 cylindricum*), okoumé (*Aucoumea klaineana*), ayous/samba/wawa (*Triplochiton scleroxylon*) are light-demanding, and this low rate of tree removal does not create favourable conditions for their renewal²¹. 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 used in water 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 and volume) during the "provisional management convention" of the concession granted for 3 years, during which

²¹ In many dense forest with closed canopies, inventories show that light-demanding species, although numerous in mature trees diameters, are scarce in the smallest diameter classes, announcing a change in the forest composition.

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 dynamics of renewal of the various species and to 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 (also in Liberia).

- Cutting cycles are of 25 years in Congo and Gabon, 30 years in Cameroon and Liberia, 40 years in Ghana. In CAR, the duration is determined by the management plan, between 20 years (secondary forests) and 30 years (primary-like forests). In Côte d'Ivoire, the cutting cycle is generally of 22 - 25 years.
- In Central Africa, MHDs are set by the management plan, after examination of the diameter structure of the commercial species. 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 in the small diameters. In general, management plans in certified concessions set management MHDs 10 to 30 cm higher than the administrative MHDs²². In Ghana, of all trees in the compartment above the MHD (set by species), only 20% will be allocated to the company for logging.
- 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 Ghana, productive forest reserves are sub divided into compartments which are the smallest management unit, and harvesting is carried out within the confines of these compartments. The compartments in the reserves are grouped according to a harvesting schedule. In Ghana, the AAC in natural forests is decided on the basis of stock surveys and size limits are prescribed for the various commercial species. Only 20% of trees above the diameter limit are to be harvested (around 3 trees per hectare), with the rest retained for the next entry in 40 years.
- 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 Ghana, the company is allowed to log the compartments within 5 years. The next coupe cannot be entered into before the 5 years has elapsed. In West Africa, the rules are quite similar in Liberia (5-years compartment planning, 100% pre-harvest inventory of commercial species above MDH) and in Ghana (operators are allowed to log compartments grouped in 5-years coupes within 5 years).
- In CAR, before the opening of an AAC the concessionaires have to perform a 100% pre-harvest inventory (all commercial species above 20 cm diameter) which will allow mapping the trees to be harvested). In Ghana, it is the Forest Service that surveys the compartment, recording and mapping recovery commercial timber trees larger than 50 cm (Asamoah Adam, Pinard and Swaine, 2006). From this map the Forest Service calculates the total number of trees the company can take using a "yield allocation formula".
- In CAR, based on exploitation inventories, the lists of trees and volume to be harvested are proposed to the administration, which validates it (or not) and delivers the annual harvesting

²² For more details, see http://www.atibt.org/download/i/mark_dl/u/4012517735/4612072401/Manuel_ATIBT_4e_volet_certification.pdf (in French).

authorization. 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 of 2.5 tree/ha and 45 m³/ha based on 25 ha units. In CEB-Precious Wood (Gabon), the cap is of 3 trees/ha. In Ghana, Samartex does not harvest more than 2 trees/ha (larger area unit not specified).

- 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 a particular 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. Certified concessions have also adopted specific voluntary actions, such as the limitation of harvesting to a maximum of 3 trees/ha (the case of CEB-Precious Wood in Gabon). 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 plantings in logging gaps are considered too expensive to manage over time. In Ghana, once a compartment has been logged, the compartment is certified by the Forest Service District Manager, who inspects that environmental standards have been adhered to, and that enrichment planting has been done on branch roads, skidding trails and on sidings. This 'concession planting' is a key part of the company's operations. In Côte d'Ivoire, companies have obligations to replant in proportion to their annual harvest (1 ha planted for 250 m³ extracted). Given the difficulty companies face for finding perimeters to perform the reforestation, they are allowed to do their plantation in the "*forêts classées*" (where conflicts with settlers often make the sustainability of these plantations unlikely).

Sustainability of harvests without silvicultural operations is, however, questioned in Central Africa. Simulations over 2-3 felling cycles suggests that some key commercial species (which are also light-demanding) 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 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 that 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. 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. Several studies concluded that fauna (such as elephants) was better off in concessions in northern Congo than outside the concessions. Management plans should contain provision for the management of the biological diversity, the protection of endangered species and ensuring the sustainability of wild meat resources used by local populations as a major protein source.

In certified concessions the management plans contain provisions for a participatory zoning of the hunting areas, especially with indigenous people who rely strongly on hunting and are allowed to practice their traditional hunting activities except in areas where any hunting is prohibited. Rules are established for preventing hunting by outsiders (such as control of log trucks, closing of forest roads

not in use, prohibition of road traffic at night, etc.). The plans contain also provisions for monitoring of the dynamics population of large mammals and a follow-up of the impact of hunting practiced by local populations.

F. Allocating the concessions

Many countries announce allocating concessions through an open selection process, and some through tendering. In reality, allocation is still very discretionary and only in Cameroon the tendering is based on public auctioning which has yielded interesting but controversial results (**Box 5**).

Box 5: The experience of Cameroon with an auctioning system for allocating concessions

Concession allocation through bidding has been encouraged by the World Bank in reform packages, and such a procedure is in force in Cameroon since 1997.²³ The current allocation system is based on an examination of a technical offer (with an eliminatory threshold) with a weight of 30% in the final computation, and a proposal for setting the per hectare annual area fee, with a weight of 70%. There has been a floor price equivalent to € 1.5 per hectare since 2000. Normally, bidders commit themselves to pay the area fee they proposed for the entire contract duration (15 years, renewable), which made this case almost unique worldwide (contracts are generally shorter). In principle, area fees should be updated on a regular basis to reflect domestic inflation, but this has not yet been the case. The bidding system has been fought against by prominent operators including the best known ones. “Insiders” were very reluctant to give up their long-time established network of patronage and face competition. Not surprisingly, “outsiders” have another view. A new generation of companies, generally more efficient, have seized this opportunity to enter the Cameroonian forest sector. Obviously, once they become insiders, they will be prompt to coalesce with the other players to claim for tax cuts. Some important lessons can be drawn from the Cameroonian experience:

- The area fees proposed by private operators in a market-based environment – USD 4-6 per hectare a year on average, and up to USD 13 for “good” forests – are far higher than area fees initially calculated by the Government under the administrative system. This result was unexpected for most observers and reveals not only the value of Cameroon’s forests on international markets, but also, to some extent, the windfall earnings that neighbouring countries were and are still experiencing.
- One objection to the reform was that, without a comprehensive inventory of the whole forest, commercial concession values would remain largely unknown and the auction would be impracticable. In fact, though the lack of a comprehensive inventory is a handicap, companies are relatively well informed of the composition of the forest auctioned, often previously exploited at low intensity. Nevertheless, the setting of the floor price was a tricky matter during the reform process. After being set it at approximately € 2.5 per hectare, it has been lowered at approximately USD 1.5 to take into account “the less favoured concessions” with lower potential commercial value.
- In fact, the floor price matters only in few situations, perhaps in less than 10% of the cases. When competition is real, the proposed price is significantly above the floor price (from USD 4 to 6, on average, and sometimes higher). However, it sometimes happens that there is only one bidder in the allocation process for a particular concession and that his bid is only slightly above the floor price. This is often due to the fact that he has been informed – against existing regulations – that he is alone in the race. Sometimes, there is no proposition at all, which may indicate the floor price is too high.
- The auction system has been effective in capturing most of the economic forest rent and both Government and local council revenues (entitled to 50% of the annual royalty) have increased. The structure of forest taxes has changed with most of them concentrated upstream; this is consistent with the decline of roundwood exports due to the progressive implementation of a partial log export ban since 1999.
- A 2006 economic study (Karsenty *et al.*, 2006) found many indications that last allocated concessions (particularly in 2005) were marred by new irregularities, as demonstrated by the strong correlation between the abnormally low level of financial bids and the many cases where only one bidder was selected at the stage

²³ The first round was most disappointing for the World Bank since robust rules were not implemented at this time. New allocation rounds resumed in 2000, with better designed allocation rules and the appointment of an Independent Observer.

of bid evaluations (all other candidates were eliminated for “insufficient” technical scores). Such a situation simply confirms the fact that any mechanism for the award of an economic asset can end up being diverted. Another lesson is the fact that the “technical” component of the bidding system gives way to manipulations fuelled by corruption, and public opinion (including the civil society and some analysts) is still reluctant to accept the idea that the financial offer is the only component that cannot be manipulated.

- The increase in the costs of access to the forests sparked a range of responses. Some companies attempted to enlarge the range of species harvested, provided they could find new markets for them. The most efficient wood processors have been able to diversify their finished or half-finished products. Recovery rates have globally increased, as several operators have moved toward use and marketing of by-products or new products (including moulding, flooring, etc.). Other wood processors have decided to increase the share of out-sourced raw material, and with the weakness of control by the Forest Service (including widespread corruption), contractors are often national entrepreneurs who access the forest through different ways, often illegally, and with no forest management activities at all.
- The traditional contrast between regulation and economic instruments does not make sense here. As we pointed out, two types of response exist: one (type 1) is potentially favourable to SFM and is based on forest productivity increase (compared to the high-grading initial situation), waste reduction, increase of efficiency in wood processing, and attempts at market innovations. The other response (type 2) threatens SFM. It includes outsourcing, fiscal evasion and illegal logging. In fact, depending on the pressure they feel from the regulating authority, most companies tend to mix “type 1” and “type 2” strategies in varying proportions.²⁴ An appropriate policy, backed by a strong political will, has to enforce strict regulations in the field to block the “type 2 response”, and apply economic instruments such as a the bidding procedure and an incentive-oriented taxation regime.

Based on the analysis of the Cameroonian experience, one can say that competitive auctions are a necessary but not sufficient tool and should not be implemented alone. The competitive auction system has some inherent risks, which are exacerbated by the excess of installed capacity and the lack of information during the launching phase. The heterogeneity of forests, in terms of occurrence and distribution of commercial species, timber quality and proportion of unproductive areas, is not always taken into consideration in forest inventories (both reconnaissance and large scale) and an information asymmetry is always present in a context of limited public information.

The companies’ adaptation capacity to diverse characteristics of the resource depends on a number of factors, including capital availability, access to markets and the efficiency of the processing capacity. These features are not always under the control of firms that often have limited access to information, limited capacity of anticipation and can make wrong assessments, all limiting factors that can cause risks of overbidding²⁵. Some operators argue that given the fluctuations of the international wood market and the unstable institutional and legislative conditions of the country, it is impossible for them to correctly reveal their willingness to pay based on expectations on future economic rent. Furthermore, having to pay a fixed annual area fee when a large part of the cash flow is determined by international volatile prices, exposes the concession-holder to high risks when the market is down. Targeted fiscal measures aiming at reducing the risks incurred on versatile international markets should be introduced.

The following set of measures can be considered:

- Financial means should be given to the Forest Service (or to private firms acting on its behalf) to undertake **survey inventories** aiming at providing accurate **public information** of the commercial potential of the resource to be auctioned. In addition, sufficient time has to be given to allow potential bidders to make their own surveys.

²⁴ Even though a handful of companies are clearly committed toward SFM and globally comply with the new regulation system.

²⁵ Vincent *et al.* (2003) speak of a “winning curse”.

- **The area fee should be linked to the international price of tropical woods** through the creation of a basket of forest products (logs, sawn wood, ply and sliced veneer, plywood) from different species on which a wood price index updated yearly would be based.²⁶
- **Export and cutting taxes** on secondary species could be significantly reduced in order to promote diversification towards these species to counterbalance potential high-grading due to higher fixed costs deriving from SFM implementation. And if the forest management plan reduces the potential yield (through increase of the minimum exploitability diameter of the main species) after the auction (unexpected reduction), a corresponding reduction in the area fee can easily be calculated.
- **A reduced area tax** could be granted to firms that go beyond legal requirements and get independent certification of their forest concession. The Government will have to decide what certification system it will endorse and what the duration of the tax rebates for certified firms will be. It is clear that this measure would strongly increase certification which in turn will result in an acceleration of forest management plan implementation, a pre-condition for certification. It would return fractions of the captured economic rents to operators complying with the law, allowing them to offset the cost of their organizational investments and diversify their harvests, in line with management plan prescriptions. To convince governments to give up such tangible fiscal revenues, the international community could propose to compensate governments for the foregone revenues derived from the amount of area certified (for, say, 8-10 years). REDD+ finance could be mobilized for such budgetary compensations. This seems a realistic way to take up the idea embodied in the so-called “performance bond” scheme suggested by several authors (Blakeney 1993, Leruth et al., 2001), but whose implementation seems most difficult as long as it does not take into account the dynamics of independent certification schemes.
- Management plans under preparation will define productive and non-productive areas within the concession. It would be advisable to have the **area fee to be paid only on the productive areas** once the management plan is ready and approved (it would also provide an incentive to achieve readily the forest management plan). This principle has been adopted in the DRC.
- **Transferability of concessions** (already in force in Cameroon) at auctioned prices should be facilitated with minimum interference of the administration. In case of evident overbidding (payment default), the operator must return the concession without delay and the possible noncompliance with forestry rules must be sanctioned adequately.

This set of measures can be considered as a useful way of “fine-tuning” the fiscal regulatory framework following the consolidation of the competitive allocation process. They are inspired by the need for risk reduction, performance recognition (certification), diversification, levelling of the playing field conditions and fair treatment of law-abiding operators. If implemented, they would reduce fiscal revenue in the short-term. At the same time, they should spur a sounder and more vigorous growth of the sector which in turn would benefit the whole economy and counterbalance the initial reduction in revenues.

²⁶ Such a mechanism has been mentioned as a possible means of reducing risk associated with the volatility of international timber prices in Karsenty (2002), and was also put forward by Vincent *et al.* (2005). Given that operators might be reluctant to disclose their prices to competitors, it is important to work with a price index. This type of information is provided by ITTO twice a month for a dozen of African species (logs and sawnwood) could be used as a starting point.

G. Taxation regime

I. An issue less critical in the forest reform agendas

Taxation regimes evolved over time. After having being historically low and concentrated on log exports, taxes have been increased on the concession's area itself and, in some countries taxes have been globally raised as a consequence of the influence of the World Bank on reforms initiated in the forestry sector to increase transparency and fiscal receipts – leading to considerable controversies. But after the economic crisis of 2008-09, and the decreasing influence of the WB once large debt cancellation operations in Central Africa had been completed, tax pressure has been considerably lightened, with several bilateral agreements between companies and fiscal administrations.

For instance, in Gabon, agreements (entailing tax reduction) have been concluded between the Ministry of Forestry and many concessionaires for various in-kind services (building and renovation of forest's office, transport of staff, etc.); and other agreements have been gathered by the Presidency as incentives for attracting timber processing industries in the Special Economic Zone of Nkok. In the DRC, collection of some taxes has been transferred to the provinces, and it has been reported by DRC's officials that bilateral agreements involving in-kind services have led to "demonetization" of the taxation (in-kind services against tax cuts). In Cameroon, the area tax has been cut by 50% after the 2009 crisis; if this special measure is now over, the recent recovery of the area tax is fuelled by new rounds of competitive allocation of "*ventes de coupe*", short term permits which unregulated exploitation preludes to forest conversion.

The "super-cycle" of the mineral natural resources started in 2004 (oil) and 2006 (mining products) and included also the agricultural products from 2008 on. As many highly forested countries are also rich in minerals and oils, they enjoyed since then significant flows of fiscal revenues from these activities, and somehow disregarded the modest amounts of receipts the forestry sector usually yielded. For instance, in Congo-Brazzaville, forest taxes compare to potential oil revenues in a proportion of 1 to 80 - 100.

Conjugated with the debt reduction negotiated around the same period – and the subsequent decline of influence of international organizations such as the IMF and the WB that insisted on fiscal efforts to make country debts sustainable repayment –, forest taxation is no more a major issue in the forested countries. Whether the apparent end of the "supercycle" and the decline of oil and mineral prices (and even agricultural product prices, such as oil palm) might reverse this trend is an open issue. With the end of the exploitation cycle in primary forests and growing human population, policy priority assigned to the forest sector is employment. The timber industry can, therefore, refuse high taxation in the name of employment and, so far, this has been an effective strategy since processed products are much less taxed than logs (whose exports are restricted if not banned).

In some countries, such as the DRC, Cameroon or CAR, the "*parafiscalité*" (taxes or "contributions" not planned in the Finance Law but created at administrative level) have considerably increased and somehow replaced the formal taxation regime, with a blurred boundary with corruption and racket (Cerutti and Tacconi, 2006). Since ministries face difficulties to get their budgetary allocation for investment and functioning, many administrations (especially those who can potentially hamper the business) use, and often abuse, of their prerogatives to levy specific monetary contributions. As a result, companies often pay a lot of "contributions" to various public administrations, with only little sums entering the Public Treasury.

II. Transparency and Independent Observer

Transparency has increased but public information is still difficult to access and governments are reluctant to provide on-line updated information on concession holders. Fiscal information is still a very sensitive matter, and transparency is extremely limited, in spite of the EITI (Extractive Industries Transparency Initiative) and other measures such as the Economic Government Matrix conducted

between WB and the DRC Government²⁷. The EITI encompasses the timber sector alongside the mining and oil/gas industries, but a country can decide to expand the EITI requirements to forestry. This decision has been taken in Liberia, the only one in the selected countries. In 2013, the EU adopted a new “Accounting and Transparency Directives” introducing a new obligation for large logging companies (concession-based logging of natural and semi-natural forests) listed in the EU to report the payments they make to governments. Large European concessionaires resist this obligation and complain that their Asian competitors are not subject to the same obligation. Seven EU members have started translating the directive into their national legislations.

A first experience of Independent Observer (IO) has been experienced in Cameroon after long and difficult discussions between the WB and the Government (Topa et al., 2009). This Independent Observer of the concession allocation process participates into the commission that decides to whom the permits will be attributed, following a strict procedure of ranking involving a financial bid. This innovation produced interesting results in terms of governance and transparency at the end of the 1990's and the beginning of the 2000's, when a major re-allocation of concessions took place. But, to be a driver of change the information has to be used by the authorities. In Cameroon, the report of the IO of permits allocation was mattering in the first years, but it gradually ceased to be used in the dialogue with donors. It is also true that most concessions were attributed in the mid-2000, making the role of this Observer less critical than it was some years before.

The introduction of IOs has improved the situation regarding the level of law enforcement in the field. However, the public information available rarely translated into sanctions or reform of the monitoring system of the administration (see **Box 6**). On one hand, the governments formally agree with such institutional innovation as testimonies of their goodwill to enforce forest laws, but on the other hand the vested interests inside the Forest Services are reluctant to sincerely support such processes. Big international environmental NGOs, which are keen at pinning to their list Western companies sensitive to the public opinion, have not used extensively the published results of these IOs when the companies called into question were not those usually targeted by these NGOs. With the FLEGT process, the role of IOs should become critical, but it seems that governments are not willing to use the information revealed and to follow the practical recommendations made by the teams.

²⁷ The Extractive Industries Transparency Initiative (EITI) is a voluntary initiative with the objective of improving transparency and accountability in countries rich in oil, gas, and mineral resources. Once a host country endorses the initiative, the EITI process is mandatory for all extractive industry operators (including those that are state-owned) operating within that country.

Box 6: Independent observation in support of forest law enforcement

In Cameroon, Global Witness was appointed as the first Independent Observer (IO) of the forest sector in May 2001 for a transitional period. In May 2002, the appointment was extended until another Independent Observer (Resources Extraction Monitoring, REM) was recruited through an international tender. The project “Independent Observation in Support of Forest Law Enforcement in Cameroon” can be summarized as following:

- ensuring the objectivity and transparency of control operations conducted by the Ministry in charge of Forestry by including an IO with international credibility, monitoring how law enforcement filed missions are carried out and whose reports will be published;
- monitoring and observing all phases of forest law enforcement in Cameroon, from field investigations to payment of penalties, taxes and compensations and/or the final judicial verdict through the Issuing of Statements of Offence (*Procès-verbaux*) by a control unit;
- facilitating clarification on the means of control, through a description of roles of those involved in forestry control;
- assisting the Ministry to develop and put in place systems for monitoring control missions and litigation and case tracking, based on the legal and regulatory framework in force.

The IO does not have a function or power of “control” or law enforcement, but that of independent observation and support for the implementation of an effective control system. Issuing of Statements of Offence and sanctions remains a function of the Government. The IO is recognized by the Government in an official capacity and works in close cooperation with all relevant departments, albeit independently. This position facilitates access to official information related to forest control available, such as maps of valid logging titles, statistics, tax collection documents... Since 2011, the role of the IO has been taken over by AGRECO, with the support of the NGO Cameroon Forest Watch (<http://www.oicameroun.org/>).

In Congo, the Government asked REM in 2007 to implement Independent Observation. REM and the Congo NGO CAGDF led the process until June 2013, with EU and UK funding. CAGDF, then, took over. Contrary to Cameroon, the missions of the IO were not operated jointly with the Forest Service. The IO had the obligation to inform the administration of the location of the mission and the companies to be visited. Mission reports of the Independent monitor must be adopted by a Reading Committee (*Comité de Lecture*) before being published. The Committee is presided over by the Forest Director and includes representatives from the three independent monitors, as well as a representative from civil society; donors can also be invited as observers, and EU representatives have regularly participated. The Government cannot block the adoption of the report, though any objections they may have can be noted in it. Reports are accessible on the Internet: <http://www.observation-congo.info/Rapports.html>

In the DRC, REM carried out the IO role from 2010 to April 2013, with funding from the EU. The project ended in December 2013 and reports are accessible at <http://www.observation-rdc.info/>. An NGO called OGF (*Observatoire de la Gouvernance Forestière*) has taken over since then (<http://www.ogfrdc.cd/>).

All these initiatives have yielded interesting results in terms of knowledge of the violations, their various nature and realistic assessments of the magnitude of illegal logging. But the process was not really supported by the governments. Reports pointing out the infractions with the name of the involved societies are published on the Internet. The review committee did not object reports presented by the IO pointing out serious administrative dysfunctions. But no further action is taken by the administration (suspension of contracts, etc.), revealing the lack of ownership of the process by national authorities although the IO is put forward by governments in international forums to affirm “good governance” in the forest sector.

H. Experiences with Log Export Bans

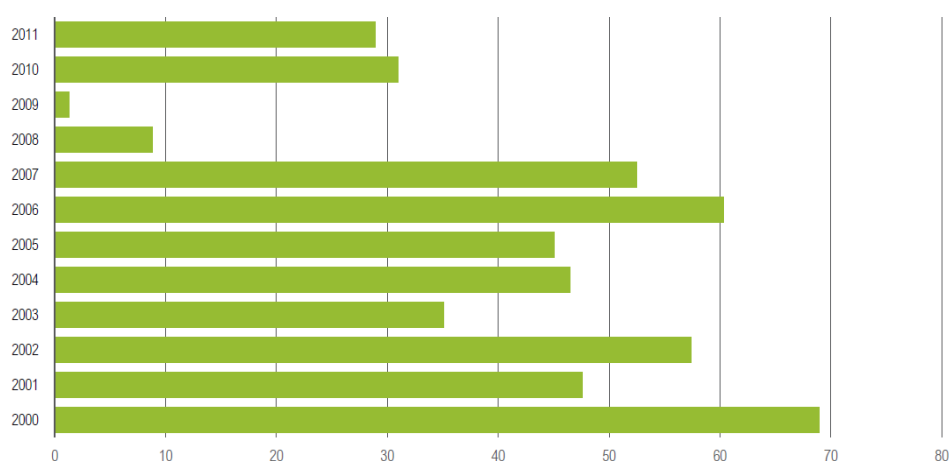
Partial or total log export bans (LEB) have been introduced in several countries, but are only strongly implemented in a couple of countries, such as Gabon, Ghana and Côte d’Ivoire. Cameroon and Congo use quotas allocated to companies but these are not strictly enforced (e.g. in Congo).

- In Cameroon, the “traditional species” (generally redwood) must be transformed in 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 Cameroonian Government

allowed temporarily the log exports of traditional species, which boosted the exports. Today, this authorization is closed and around 1/3 of the industrial log production is exported as logs. Quotas of log exports rights for ayous and azobé (*Lophira alata*) have been introduced, but allocation of these quotas is discretionary and entails governance issues.

- In Congo, concessionaires are requested to transform at least 85% of their log production. This obligation is fulfilled by the certified companies, but most companies do not comply with this obligation. In 2010, the Government allowed for transferability of the implicit 15% quota of authorized log exports. But public authorities experience difficulties at managing this system since the exchange of information between the various services of the ministry in charge of forests and custom services is dysfunctional. In the last years, around 1/3 of the log production has been exported as logs (more than double the 15% quota).
- In Equatorial Guinea, a presidential decree has been issued in 2007 prohibiting log exports. After the issuance of the decree, all concessions were cancelled and only short term permits were delivered, leading to a collapse of the production from more than 500,000 m³ in 2007 to 13,700 m³ in 2009 (**Figure 22**). By the end of 2008, the presidential decree was *de facto* abrogated and log exports resumed. Shimmer International, a subsidiary of the large Malaysian company Rimbunan Hijau, came back into the forest sector. Certified companies (legality) are allowed to export up to 50% of their production. The others have to pay 5000 FCFA (USD 0.85) for m³ exported as logs. In 2013, 11 companies shared 740.122 ha, representing 48 concessions (which are very small areas).

Figure 22: Evolution of the timber production in Equatorial Guinea (thousands of cubic meters)



Source: WRI - Atlas forestal interactivo de la República de Guinea Ecuatorial

- The 1997 Forest Law caps the production at 450,000 m³ annually, but it is obvious that this was not respected up to 2008. In the meantime, areas devoted to production forests (*Bosques Nacionales*) diminished dramatically: the Government reduced them significantly 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 installed for more than 3 years to process 60% of their production. A subsequent Finance Law raises this threshold to 77%, but the law is barely enforced.
- In the DRC, only the holders of mills can export logs for a maximum of 30% of their production. Here too, the law is poorly enforced.

Log export bans for the most valuable species have an economic cost, as specific qualities of logs – most often the highest quality, but also low-grade timber in demand as logs on Asian markets – are processed rather than exported. The economic cost is generated by low processing efficiency which

causes a given log to lose economic value in the processing compared to selling it as logs on the international market (to be processed abroad in more efficient sawmills struggling to buy logs). Not all timber processing entails a loss of added value, as there are efficient plants with good wood processing rates able to fetch high prices for their products. LEBs create also perverse incentives as they encourage companies to acquire poor processing equipment simply to comply with the law. And the eviction of the foreign demand (the most remunerative) for logs tend to decrease log prices on the domestic market, allowing inefficient sawmills to remain competitive thanks to the low price of the raw material (as long as the timber resource is balanced with industrial capacities installed).

The same phenomenon has been observed in Ghana with low domestic prices of logs compared to the FOB prices of the same species exported in Central Africa. In 1995, M. Richards analysing the log export ban in force in Ghana stated that “log export bans have caused severe distortions on the domestic market encouraging consumption of endangered species and negating the environmental objectives of the bans. Both the low royalties and log export ban have encouraged over-capacity and inefficiency in processing, to add to already high wastage levels in the forest”. Hansen and Lund (2011) consider that “inefficiencies result in a loss of raw wood in the order of 1.1 million m³ annually in Ghana”. See also **Box 7**.

Box 7: The opportunity cost of the log export ban

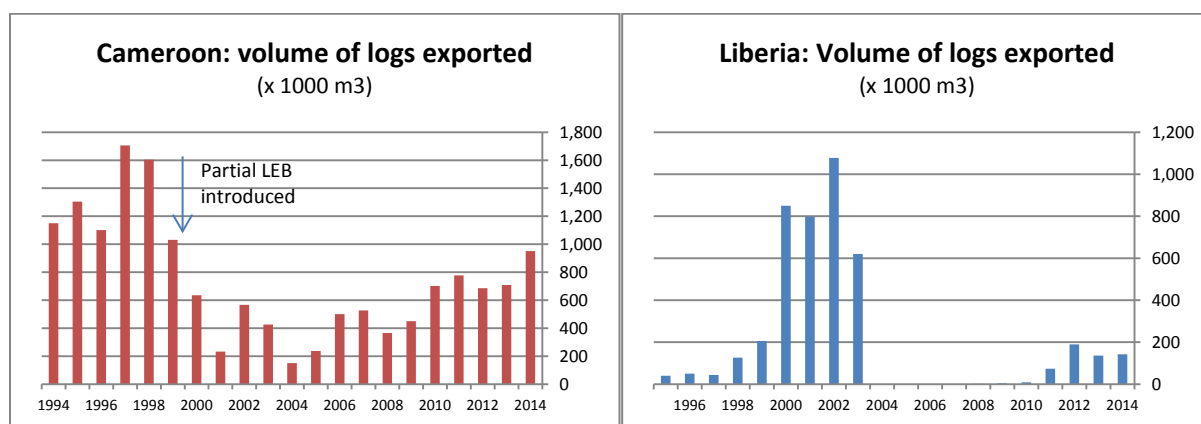
The average declared FOB price of sapelli sawnwood exported from Cameroon is listed at € 605 per m³ by ITTO-Market News Service (MNS) in July 2015. The FOB price for Congo Basin sapelli logs was listed as € 320 per m³ for “B” quality by ITTO-MNS at the same time (sapelli cannot be exported as logs from Cameroon). The recovery rate in simple sawmills (i.e. without drying facilities or industrial carpentry for by-products re-utilization) is 36% on average. This means that the log equivalent value of exported sawnwood is € 218, to compare with the actual FOB price of € 320 for logs exported from, say, Congo. Even though the log sawn was of the lowest merchantable quality (BC/C, listed at € 240 exported as logs by ITTO), there would be an opportunity cost of € 22, without accounting for the energy needed to run the sawmill.²⁸

In other words, sapelli logs processed in these mills could have been exported for a minimum of € 664 and up to € 886 (B grade), instead of the € 600-610 value yielded by the export on 1 m³ of sapelli. A recovery rate of 52% would be needed to formally nullifying the opportunity cost of exporting sawnwood rather than logs, without accounting for the energy and the depreciation of machines used. By doing by-products, wood processors can increase the overall recovery rate (even though the value of by-products does not equate the one of the main product) and be better-off transforming rather than importing logs. Obviously, the reasoning is even more relevant for those wood processors doing specific products of high value. In any case, one can guess that, given the heterogeneity of timber industries, a total log export ban generates opportunity costs for many players.

What varies also is the income distribution. With a higher volume of exported logs, a greater part of the forest rent goes to the Public Treasury, as taxation is heavier on logs as compared to processed products. Under a LEB the fiscal receipts drop (see Gabon’s case) but governments hope that there will be more employment, which is not systematically happening (see again the case of Gabon). The share of the economic rent going to the industry could probably be greater as compared to a free trade situation, given that domestic prices of logs tend to decrease (elimination of the foreign demand for logs). A more comprehensive analysis on added-value generated by the processing industry would need to be carried out in each case in order to make reliable assessments. This analysis should assess the positive impacts on added value of establishing a log export ban which includes wage distribution and industrial capital remuneration against a reduction in transportation activity due to lower volumes (this reduction in transportation may also yield important environmental benefits, especially when transportation is essentially made by trucks).

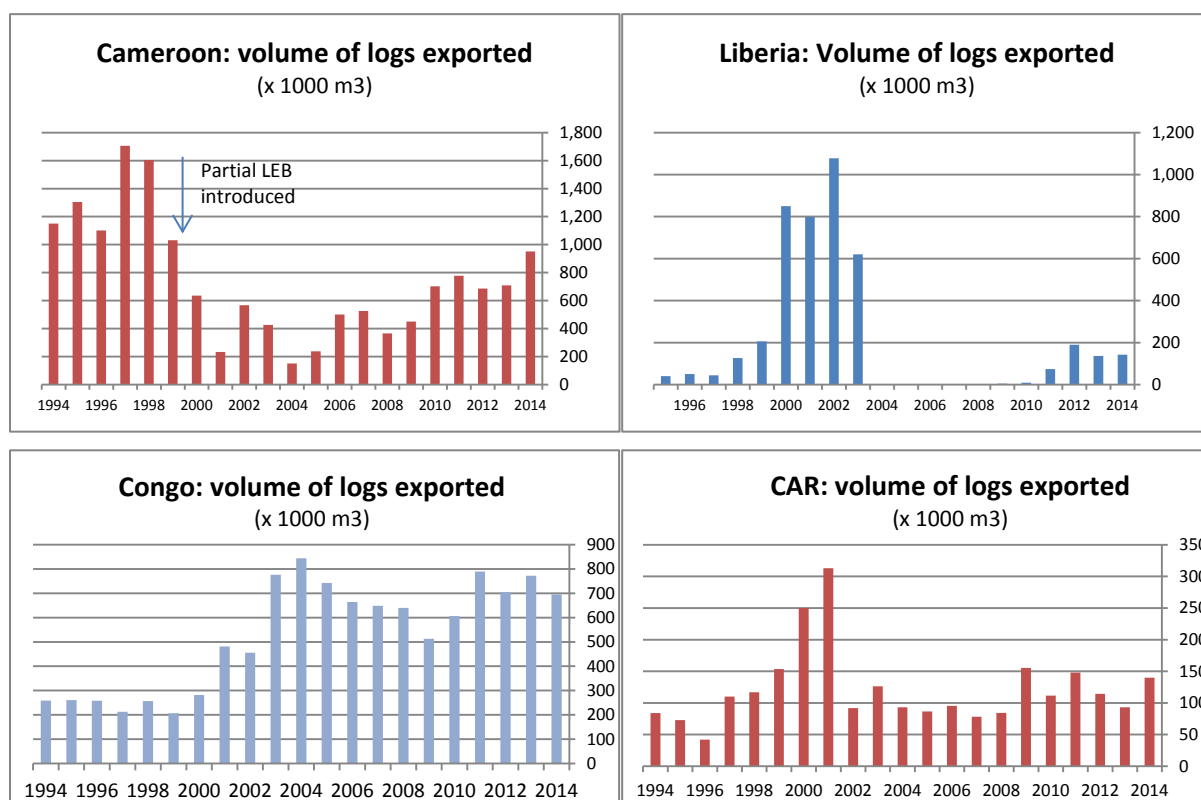
²⁸ Some companies obtain high recovery rates on the main products by selecting only the highest quality logs for processing. In this case, processing efficiency would be higher, but so would be the opportunity cost associated with logs which are not exported

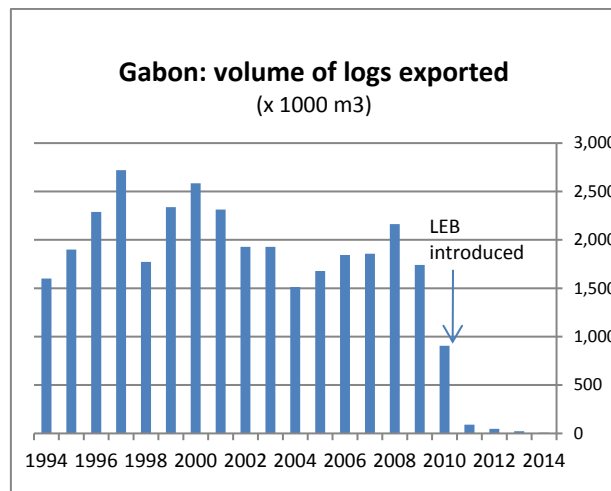
Figure 23: Log exported by several Central Africa's countries and Liberia



displays the evolution of log exports in countries where this is still allowed and shows a certain resilience of this trade activity.

Figure 23: Log exported by several Central Africa's countries and Liberia





The more recent LEB case of Gabon is described in **(Box 8)**.and some data illustrating the result can be seen in **Figure 24**.

Box 8: Gabon's experience with the log export ban (LEB): facing a logjam

In 2010, the Government of Gabon decided to ban log exports, a measure entering in force in 2011. This was quite surprising, inasmuch as Gabon was the largest log exporter of Africa, and was not well-known for its industrial traditions. The impact has been significant for the forest sector. The timber production dropped brutally and dramatically. Although the usual figures of production for Gabon (source: ITTO) were around 3.2 to 3.5 million m³ (with a peak at 3.94 million m³ in 2009, just before the LEB), the 2012 production was just 1.7 million m³ and the 2014 figure is likely to be between 1.8 and 1.9 million m³. The profitability of the timber activity became, overall, negative, since the financial margins were linked essentially to the export of logs. Therefore, the perimeter of profitability of logging shrunk and several concessions stopped or reduced their activities, especially when they did not have enough processing capacities.

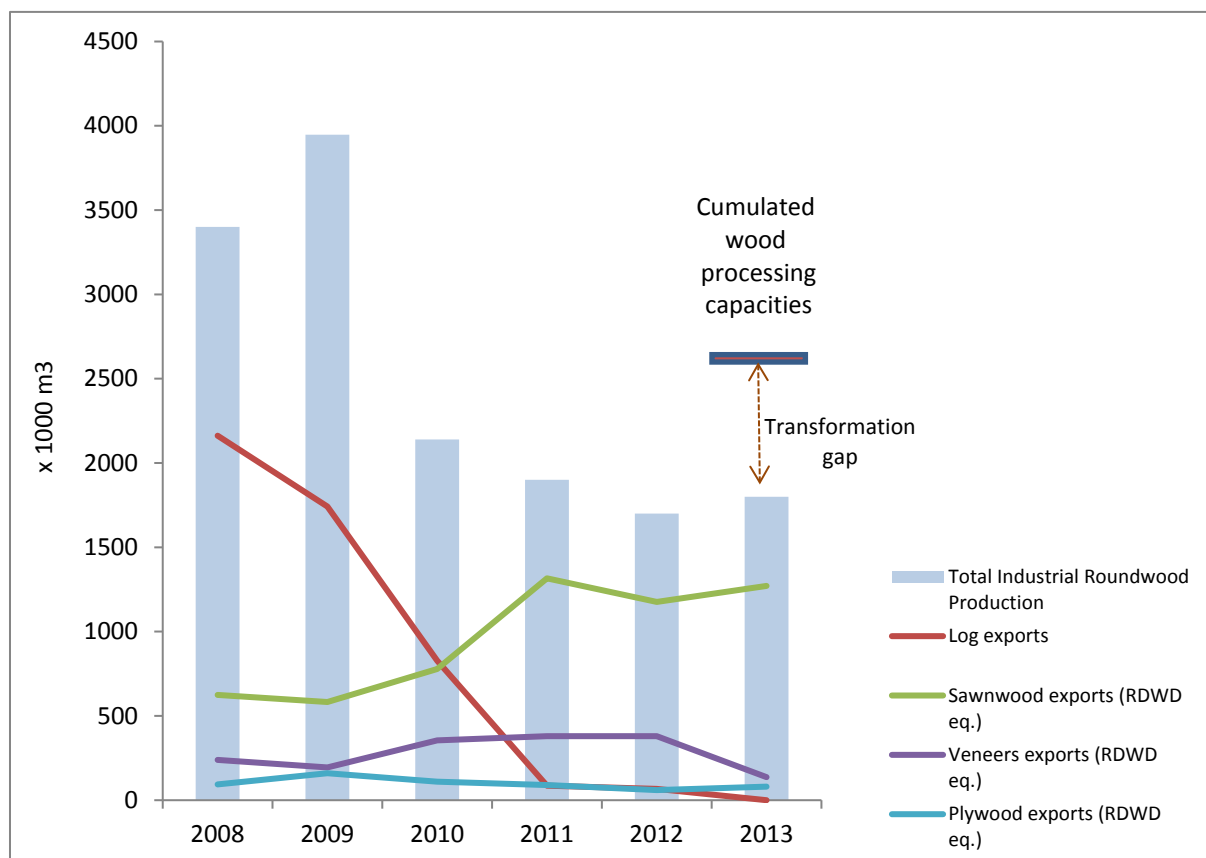
As all companies suffered financial losses up to 2013, thanks to restructuring, high international log prices for the African timber and an active domestic market for high-quality logs (for peeling), a handful of companies resumed profits in 2013-2014, but have to bear the losses of the previous years (debts) damaging their investment capacity. New sawmills (and some peeling units) have been built, raising the installed processing capacity (input) of transformation to 2.6 million m³, resulting in a situation of overcapacity as long as the production does not reach its previous levels. Employment, according to figures from the Ministry of Forest Economy, is slightly below the pre-LEB situation: 8,200 employees in 2014 against 8,900 in 2009. But this accounts only for direct employment, not for the indirect employment (log transport, port facilities...) that has been lost in the meantime (probably several thousands, but there is no figure available). Fiscal receipts, essentially based on taxation of log exported, dropped dramatically: although forest taxes (area, felling and export taxes) yielded in the past around 30 to 40 billion FCFA in average (USD 50 to 65 million, and even 75 million in 2009), in 2014 the "*Direction Générale des Impôts*" suggests these are 6 billion FCFA (USD 10 million) only.

The Government was expecting that logs that could no longer be exported would be transformed in plywood, veneers and sawn wood – and also in furniture. But the international competitiveness of those Gabonese processed products is limited, as the country 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 wood recovery rates cannot take-off. In addition, the Government pledged in 2010 a 40 billion FCFA (USD 65 million) for a fund intended to support the investment in processing, which has not been created yet.

For the concessions themselves, significant changes have taken place in ownership. Many mid-size players whose activities were based on log exports gave up their activity 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 Nkok²⁹. 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 forest activities and sold its business to a (new coming) Chinese company.

Figure 24: In Gabon, the log export ban entailed a sharp drop of the production and overcapacities for wood processing (data: ITTO Annual Statistics On-Line)



Employment opportunities generated

Overall, concessions provide direct employment for around 135,000 workers in the selected countries of West (Liberia, Ghana, Côte d'Ivoire) and Central Africa (Cameroon, Congo, Gabon, DRC, CAR and Equatorial Guinea). The informal sector is likely to provide much more jobs in populated countries such as Côte d'Ivoire, DRC, Ghana, and Cameroon, according to estimates (more than 100,000 jobs in Cameroon, up to 15,000 permanent jobs in DRC and probably much more if one takes into account also the non-permanent jobs). One specificity of jobs provided by the timber sector is that they are among the rare jobs available in remote and economically marginalized areas (the forest zones), and which target non skilled people. It is estimated that one permanent job in Central Africa sustains the livelihood of 10-12 relatives. **Table 2** gives the best estimates one can propose to compare direct industrial employment and jobs provided by the artisanal sector.

²⁹ 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.

Table 2: Estimates of production and employment provided by the artisanal/informal sector (Sources: documents by Lescuyer and Cerutti, 2006 and 2013, completed by various other sources)

	Cameroon	DRC	Congo	CAR	Gabon	Côte d'Ivoire	Ghana	Liberia
Annual domestic consumption from informal chainsaw milling (sawnwood) (m³)	662 000	1 024 000	100 000	34 000	50 000	Between 1.5 and 3 million	497 000	140 000
Estimated informal sawnwood exported (m³)	53 000	112 000	-	5 000	-	?	260 000	?
Total (m³)	715 000	1 126 000	100 000	39 000	50 000		757 000	140 000
Roundwood equivalent (m ³)	2 359 500	3 715 800	330 000	128 700	165 000	-	2 498 100	462 000
Employment artisanal sector	45 000	25 000	3 000	2 000	1 000	?	86 000	5 300
Employment industrial sector	11 500	6 000	7 500	4 000	8 200	10 000	37 000	5000-6000

I. The impact of forest certification

Certification of “good management”³⁰ has been a game-changer in Central Africa, for the six companies who get such scheme for their concessions (Decolvenaere decided to abandon the FSC in 2015). All are EU-domiciled companies holding large concessions with markets oriented towards the Western world. Certification pushes companies to legal auto-regulation, since a negative audit would mean jeopardizing their market shares in some EU markets. No new concession has been certified for a couple of years now, questioning about the potential of certification for expanding beyond the so-called “early-movers”. Even more concerning, one of the two certified concessionaires in Congo is looking actively for a buyer of its concession.

All certified companies have not reached the same level of achievements. Some of them have reached an impressive level with respect to social criteria, rights recognition and benefits sharing with local communities. “Success stories” in Gabon and Congo are often exposed, but such achievements are fragile as the cost of reaching them is often questioned by the shareholders of the related international groups.

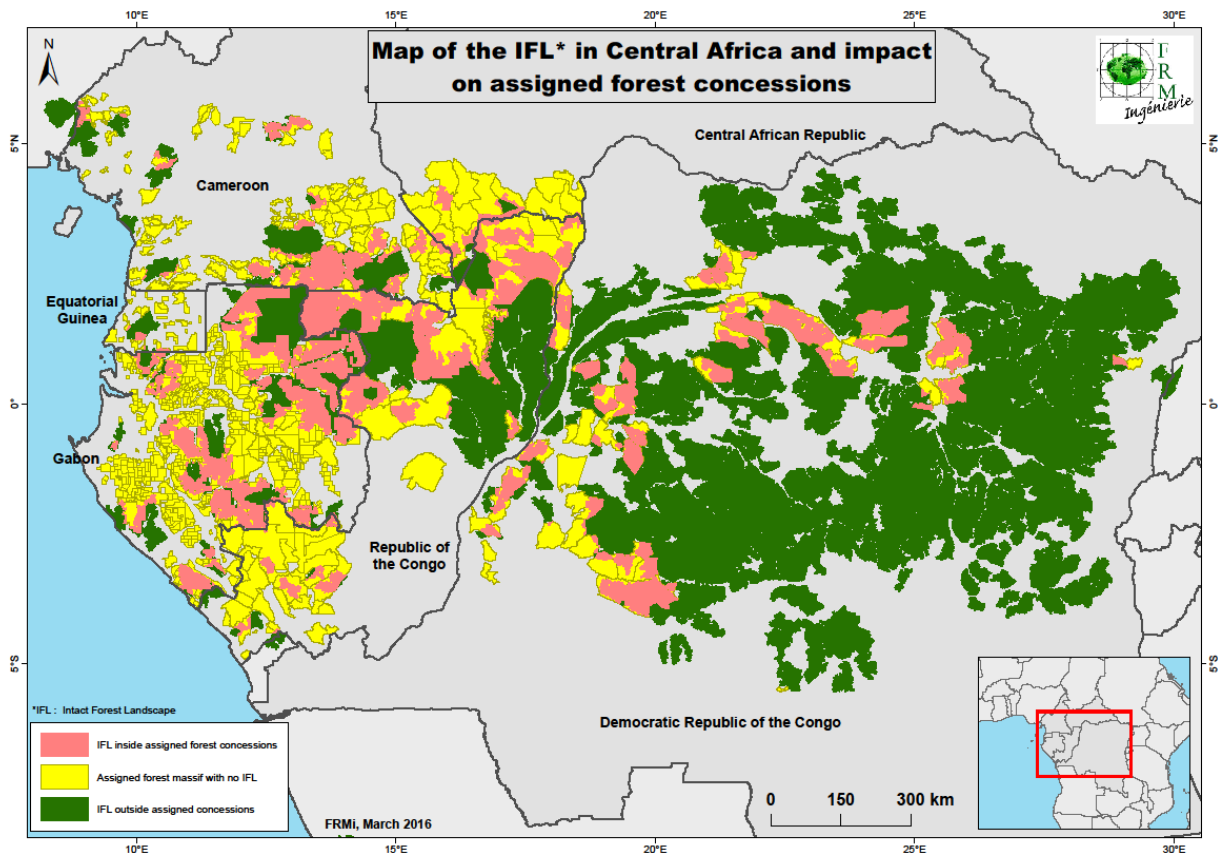
Investment in certification means significant costs, not every time compensated by the price premium (which sometimes does not exist). Legality certification (OLB, VLC, FSC-CW...) that has multiplied since the entry in force of the EUTR, somehow compete with “good management” certification and competition is likely to increase when FLEGT licenses will be available in the future.

Internal discussions within the FSC tend to crystallize on the Congo Basin, with pressures to strengthen the requirements for the industrial concessions, especially with the issue of the “Intact Forest Landscapes” (IFL, see **Box 9**), which could force some FSC-certified concessionaires having IFL in their concessions to abandon the FSC and to seek an alternative with the PEFC/PAFC currently

³⁰ FSC is the only scheme certifying good stewardship of forest so far in Central Africa. There are other schemes (PEFC/PAFC) but with no client until now.

pushed by stakeholders. A map crossing concessions and IFL has been produced for Central Africa by FRM Ingénierie, showing the magnitude of the issue (**Figure 25**).

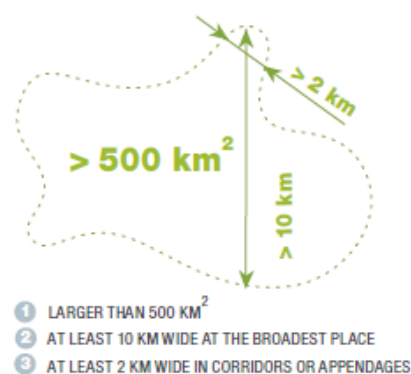
Figure 25: Map of the Intact Forest Landscapes and their impact on the concessions



Box 9: The issue of Intact Forest Landscapes

The definition of IFLs can be found at <http://www.intactforests.org> : “an unbroken expanse of natural ecosystems within the zone of current forest extent, showing no signs of significant human activity and large enough that all native biodiversity, including viable populations of wide-ranging species, could be maintained. Although all IFL are within the forest zone, some may contain extensive naturally tree-less areas, including grasslands, wetlands, lakes, alpine areas, and ice. This definition builds on the definition of Frontier Forest that was developed by WRI (Bryant et al., 1997).”

Greenpeace emphasizes this notion and triggered discussion within the FSC. In a document called “*Tropical Forest Fragmentation - Implications for Ecosystem Function*” (Ellis-Cockcroft and Cotter, 2014), the authors write: *Although our understanding of tropical forest ecosystem function remains incomplete, there is undoubtedly a strong argument for the need to preserve large areas (500 km²+) of intact forest(...). This is especially true given that it is unknown whether the transition between the ecosystem function and ecosystem services of primary forest and that of secondary forest is linear ... Furthermore, fragmented forest, particularly in light of retrogressive succession, is unlikely to support key functional groups involved in the maintenance of*



ecosystem stability, such as large frugivores and apex predators.... While it has been demonstrated that some aspects of ecosystem function can be maintained in moderately disturbed forests(...), the evidence presented here strongly caution against any encroachment into intact forests.

The sketch at the side, excerpted from the Greenpeace report, gives an idea of what an IFL is.

During the 2014 FSC General Assembly, Greenpeace Int. passed a motion with 9 principles aiming at protecting the IFLs and calling FSC national working group “to develop, modify, or strengthen (according to standards revision processes) indicators within National Standards and CB standards that aim to protect the vast majorities of IFLs”, failing which “If by the end of 2016 a relevant standard has not been implemented, a default indicator will apply that mandates the full protection of a core area of each IFL within the management unit. For this purpose, the core area of the IFL will be defined as an area of forest comprising at least 80% of the intact forest landscape falling within the FMU”.

For instance, the #4 principle states “Within IFL cores ensure that Certificate Holders implement protection measures (for example, set-asides, legal protected areas, conservation reserves, deferrals, community reserves, indigenous protected areas etc.) ensuring management for intactness, in areas within their control”.

Concessionaires believe that this will practically prevent exploitation under FSC certification in many forests in Congo, Cameroon and Gabon. In Congo, 42% of the IFLs are included into the concessions; it is 54% in Cameroon, 63% in Gabon and even 74% in CAR. Consequently, some of them consider abandoning the FSC and looking for a PEFC alternative (through the PAFC, a scheme initiated in the beginning of the 2000’s but without clients, that was taken over some years ago by the PEFC). But the potential disaffiliation of several large companies with the FSC might have a significant impact for their exports in Europe and North America, since opponents to industrial concessions will certainly claim the PEFC/PAFC certificate does not provide the same environmental guarantees as they do not consider the IFLs.

J. New interests for forestland and new challenges for the concession regime

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 outlet, and especially the EU market. As a consequence, Asian interests are gradually taking over European ones, and most of the area and industrial production are now taken by Asian companies (see **Table 3** for an

illustration). Since the profitability of the activity is low (when complying with the regulations in force), many European companies have sold their activities to Asian companies who, on the one hand, are sometimes less concerned about some regulations and, on the other hand, have more effective trading networks (buyers advancing up to one third of the cost of operations for their contract). This is also why forest management certification does not expand further so far, even though some newcomers in Gabon (such as the Chinese KHLL who has taken over Olam-Bois concessions in Gabon) claim that they are interested in certification. Given that Asian companies often re-export semi-finished products made with African timbers to Europe or the USA, these companies are considering at least legality certification to facilitate re-export.

Table 3: Most significant changes in ownership from European to Asian companies

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	Compagnie Equatorienne des Bois (CEB) (In Gabon CEB has been 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

Since 3-4 years, there is almost no more “primary” or “primary-like” productive forest to be exploited within the “perimeter of profitability” (depending mainly on transport infrastructures) of the forestland in Central Africa. All forests are “secondarized” to a more or less extent, 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.

Unlike what happened in Southeast Asia, where, thanks to the relative homogeneity of stands rich in dipterocarp forests, commercial species were grouped under well-known names (e.g. meranti) leading to intense harvests, in Central African logged forests there are many species left that are potentially marketable. Important investments in processing and marketing will be required to re-create opportunities for a new economic rent, but the “insiders” (current concessionaires) are not wealthy enough to make this investment and there is a big question mark on the potential “outsiders” that could invest in Africa’s forest sector.

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 lower expectations vis-à-vis this scheme). In West and 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 the certification (e.g. Decolvenaere in Cameroon). Governments are also aggressively promoting agribusiness, often at the expense of the

concessions – as in Cameroon, where the Government balks at signing the gazetting acts for incorporating the concession in the Permanent Forest Estate.

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, connected to global climate change issues. 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 tracking, sustainable forest management certification, social care for local populations, and significant fiscal contribution. This has the effect of squeezing out small-scale operators, who often resort to becoming, or remaining “informal” to avoid overregulation and associated corruption. In countries where the potential for domestic markets is low, producers face strong competition from other countries, corporations and business models. Concentration and restructuration (of the export-oriented) on the one hand, and fragmentation (of the domestic-oriented) on the other, seem to be the current trend in the logging industry of the Congo Basin.

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

Moreover, the second “D” of REDD+ (avoided degradation) will more likely pave the way toward “conservation concessions” that could be remunerated rather than for “improved logging concessions”, as though selective logging is not deforestation it could be considered as causing degradation (even though potentially reversible). Thus, turning logging concessions into conservation concessions could be eligible as “avoided degradation” activities (**Box 10**).

Box 10: Conservation concessions in Central Africa

A couple of conservation concessions have been established in Central Africa, especially in the DRC which have incorporated the concept in the 2002 Forest Code. A pilot project funded by the Congo Basin Forest Partnership proposes to create a 485,000 ha of Conservation Concessions in the Equateur Province of DRC by converting a former (cancelled) timber concession to conservation. The project has been initiated by Conservation International. Its principle is to pay the government the annual area fee and to manage the concession as a protected area. Communities participate in conservation management in return for local development investments such as constructing schools and bridges, as well as training and materials to raise agricultural productivity.

Another conservation concession initiative is associated with the Maï Ndombe REDD+ project. The area was a former logging concession on the shores of Lac Maï Ndombe that was cancelled in 2007. A Canadian company (Ecosystem Restoration Associates (ERA) Carbon Offsets Ltd.) with a local DRC partner spent 3 years to acquire the concession. It includes different measures for the conservation and sustainable use of 299,645 hectares of rainforest and aims to improve the living conditions of the indigenous and local communities living in the project area, comprising 26 villages and around 50,000 inhabitants. In December 2012, the project was validated to both, the Verified Carbon Standard (VCS) and the Climate, Community and Biodiversity Alliance (CCBA). Standards and carbon credits were sold in January 2013 on the voluntary carbon market. The project is now run by Wildlife Works Carbon (WWC) which took over ERA interests in the Maï Ndombe joint venture. After the initial selling of 2013, the project has faced difficulties to find new buyers and many certified VCU (Verified Certification Units, carbon credits validated by the VCS) could not be sold. In 2014, the project decided even not to certify its “credits” given the gloomy commercial perspectives.

A conservation concession is to be included into a wider area that constitutes the future “jurisdictional Maï Ndombe REDD+ project” supported by the Forest Carbon Partnership Facility of the World Bank (FCPF) and the Forest Investment Program (WB and AfDB), covering 12.3 million ha, including 9.8 million ha of forests. Articulation between the conservation concession project and the wider jurisdictional project is challenging, given the different parameters adopted for calculating the baseline scenario of deforestation and carbon stocks measurements.

In Cameroon, conservationists, led by Conservation International and relayed eventually by WWC, contemplate since 2001 the possibility to create a conservation concession on the 9 FMUs of primary forests in the region of Ngoyla Mintom. Those FMUs, once earmarked for logging in the zoning plan of Cameroon have been kept unallocated by the Government who was waiting for financial offers from conservationists (The Economist, Feb 14th, 2008). Finally, in 2012 the Ministry of Forests and Wildlife decided to launch a public tendering open to both loggers and conservationists for the 9 FMUs. Almost all the FMUs were allocated to loggers (except a “biology offset” area won by a mining company), but after reactions of donors the Government modified his decision and decided in August 2012 to allocate only half of the FMUs to loggers and maintain for the time being the *statu quo* on the second half.

Conservation concessions in Central Africa are quite different from the initial conception advocated by Conservation International in the beginning of the 2000's, where the idea was to buy back the logging rights to the forest concessionaires, possibly after the first felling cycle reduce the financial compensation for loggers (Rice et al., 2001). Only the Government is remunerated, based on the fixed-area tax applicable to logging concessions. With REDD+ and the perspective brought by the carbon market, the conservation concession idea has been subsumed into the concept of “REDD+ projects”. But with the difficulties faced by this market and the concentration of donors on jurisdictional projects on a much larger scale, the short-term potential for expansion of conservation concessions has been reduced.

The FLEGT program and the VPAs proposed by the EU are facing considerable difficulties in West and Central Africa. The difficulty of ensuring and verifying all the timber production at national level has been overestimated both by the EU and by the African governments who have, in some countries like Cameroon and Congo, pushed for including also the domestic market in the scope of the VPA agreements. Companies exporting to Western markets sought for legality certification proposed by private bodies and want them be recognized as “proof of legality” by the African national authorities and “negligible risk” by the EU national authorities for the exported timber. The FLEGT program failed to reduce the level of illegal timber at country level and the unfair competition between players so far.

Box 11: Waiting for FLEGT licenses

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. The EU has taken the initiative in proposing Voluntary Partnership Agreements (VPA), to help producer countries bring their legality systems into line, to reinforce their monitoring capacities and, the decisive step, to ensure independent certification of national systems of verification of legality, so that timber exported to the EE benefits from Forest Law Enforcement, Governance and Trade, or FLEGT, certifications, thus enabling European importers to feel assured 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 they want to import presents no significant risk of illegal production. This has led to a growth in constraints on the players in the supply chain, to be overcome by buying tropical timber with FLEGT certifications -- when they are available.

Although six countries (including five African nations) implement VPAs, none has yet proved able to perfect a national system of verification and traceability that is deemed to be sufficiently watertight. The surely excessive ambitious aim to ensure that these legality assurance systems cover all national production, and not just exports to the EU, makes it difficult to take the final step, given the lack of control of the artisanal production, which is mainly responsible for supplying these countries' domestic markets.

For their part, firms for which Europe is still a major market, have adopted private systems. These are systems of traceability and verification of legality, or good forestry management certification systems that include verification of legality. Professional associations ask for national authorities in charge of applying the EUTR in different EU countries to consider there are negligible risks of illegality when importers put timber onto the market with such private certifications. But the European authorities balk 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 programme that has become the much-trumpeted cause of the Commission for Tropical Forests.

With the increasing demographic density in many parts of West and increasingly Central Africa, the room for large-scale concessions is shrinking (exceptions being essentially Gabon and the Republic of Congo as well as parts of DRC). Competition by other land-uses and other tenure systems (small-scale enterprises, private or community-based) is more acute. Two big scenarios can be foreseen for the next 15-20 years:

- A 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 a growing informalisation of the timber activity (including community forestry, which will remain largely unregulated) and a declining export sector. In parallel, a development of intensive plantations to substitute the shrinking natural forest production can be expected, providing a couple of land tenure issues are tackled in the next future.
- An evolution of the concession system, from a mono-exploitation (timber) to a broader spectrum of activities, mixing SFM and valorisation of NTFPs, genetic resources, agroforestry production, recreational hunting, energy production and distribution... Such “concessions 2.0” 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 (“*finages*”) within the concessions, to develop jointly such new economic activities with the concerned populations (see below the recommendation section).

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 seen as an asset for the “*emergence*”. Disappointment vis-à-vis the financial promises of REDD+ (similar to the over-expectation associated with the Clean Development

Mechanism some 15 years ago) played a large role in the current over-priority given to forests in Central Africa. Levelling the playing field between committed concessionaires and other players would be one of the priorities, and numerous public policy instruments can be mobilized towards this objective. Foreign donors might play a role in supporting committed concessionaires to take more advantage of the forest management certification.

K. Policy options for sustainable concessions

In Central Africa, the future of forest concessions is not encouraging. With the “new interests for lands” worldwide for producing food and non-food crops, the profitability gap between sustainable forestry and agriculture (especially permanent crops), or more precisely between selective exploitation of natural forests and simplified plantation systems (including tree plantations such as rubberwood or eucalypts), has increased. The promise of valorisation of “ecosystem services” such as carbon sequestration or genetic resources, has not concretized so far and serious doubts arose about such promises of a “new forest economy” (beyond timber). On the other hand, revenues from timber tend to decrease with a new felling cycle. Even though there is still an important timber potential in many concessions, the valorisation of the less-used species would need investments in processing techniques, new products and marketing efforts. It seems only a limited number of investors have the will to make such investments, given the uncertainty associated with forest concessions in Africa. Except in Gabon and northern Congo, the population pressure is increasing and fragmentation of the forests due to agriculture is progressing. Governments do not give the timbers sector a high policy priority, corruption is rampant in the sector and concessionaires have also to cope with the negative image of tropical timber, assimilated to deforestation by the public – a perception fuelled by campaigns of large NGOs against industrial logging. The World Bank has been criticized by its Inspection Panel in DRC (Inspection Panel, 2007) and Liberia (Inspection Panel, 2010) for the efforts devoted to regulate the industrial concessions and the 2013 report of the Internal Evaluation Group of the World Bank relayed such criticisms and led the organization to be less active in its efforts for reforming the concessions regime (Internal Evaluation Group, 2013).

The forest concessions in West and Central Africa have one foot in the former colonial era and another in the modern “private-public partnership” and/or the “delegated management” pattern which are so emphasized in current socio-environmental management debates. The importance and weight of concessions in different countries vary with the policy choices made by governments, but they are also depending on objective features such as population density, remote forest area and transport costs. History, which shapes collective preferences of local inhabitants, also matters. And without a tradition of local self-organization – also the consequence of the concessionaire system inherited from colonial era – those collective preferences can be in favour of a bargaining dependence relationship with the concessionaire rather than an unlikely community development externally promoted (Karsenty, 2007).

The contribution of the forest concessions system to the national economy may appear relatively modest in relation to fiscal revenues, compared to, say, oil or job creation, compared to agribusiness. However, its full contribution in terms of induced added value is not accurately captured by national accounting systems, and is sometimes dissimulated behind transport and trade related contributions to GDP. Yet, the forest industry is one of the rare capable to create formal manufacturer employment for low-skilled workers in economically marginalized areas. Small-scale forestry is, without any doubt, able to create much more work in accessible and close-to-market areas, but not in low-populated and landlocked forest zones. In addition, the governance context prevailing in West and Central Africa disfavours the development of small-scale enterprises moving away from the informality they are confined to by the prevailing policies and the administration’s “predatory” behaviour. The formalization – and formal taxation – of the small-scale informal sector is as much an economic necessity as a major policy difficulty.

In moist tropical forests of Africa, autonomous community forestry is generally not capable to replace the industrial concessions and achieve sustainability of timber harvesting through small-scale enterprises. Hence, the decline of the industrial concessions regime is simply associated with forest degradation and triggers forest conversion at small or large scale. This calls for an evolution of the concession regime, more adapted to the growing population pressure and local land rights claims, and oriented towards a more intensive use of a wider range of natural resources.

This evolution should be supported by a set of policy reforms favouring the rule of law and the recognition of overlapping tenure rights in the concessions. Key elements of what could be such policies are detailed below.

Zoning plan and establishment of PFEs

The *raison d'être* of a forest zoning plan is to propose the area where a permanent forest estate (PFE) will be established in law. Too often, zoning plans ambition to define precisely the places where various activities should take place, including mining - whose potential location is generally difficult to predict-, when it should rather establish policy priorities in the utilization of the lands. It would be illusory to believe to prevent mining or oil extraction by establishing a PFE, but the legal existence of the PFE can strongly support the implementation of the principle of ecological compensation (avoid, minimize, compensate) and might provide legal grounding for overcompensation (financial transfers from the extractive industries to forest conservation and restoration).

An important point is that the establishment of a PFE should not entail changes in the legal status of land: private properties or community forests can be encompassed in the PFE, there is no necessary correspondence between the Private/Public domain of the State and the PFE.

Gazetting all the concessions applying FPIC principles

The zoning plan should be a proposition made by the Government to the populations and land users to be negotiated and adjusted when necessary. Gazetting the forests gives a legal basis for establishing in law the PFE. Such procedure should follow the Free, Prior and Informed Consent (FPIC) principle. The acceptance of gazetting could be facilitated by an evolution in the regime of tenure inside the concessions, as we will see below.

Strict procedure for mining inside concessions and obligations of ecological and financial compensations for the extractive industries

If governments decide to issue mining permits within existing concessions on the PFE, it is crucial that strict procedures are established to enforce the sequence “avoid damages, minimize them, and compensate the residual ones”, associated with international standards for ecological compensation. A compensation obligation is more and more a general obligation set by law for extractive industries, whatever the land status. When destruction takes place on concessions within the legally established PFE, a reinforced obligation can be an “overcompensation”, which adds financial compensation to the in-kind ecological compensation.

Public availability of updated information on concessions (surface, production, holders, etc.) on Ministries' website

The legitimacy of the concessions depends of the transparency and the possibility to any citizen to know the location, size, production and holders of the concessions in near-real time. Updated websites can be implemented in the Ministries in charge of the forestry sector, possibly with the support of organizations such as OFAC (State of the Forest for Central Africa) or WRI who publish Interactive Maps that would benefit from being updated more frequently.

Inclusion of industrial forestry in the EITI by governments

Another way of reinforcing the legitimacy of the concessions is to inform the public of the fiscal contribution of concessions and forest industries to the national budget and to local public

institutions. Since concessionaires are reluctant to publish such information on a voluntary basis (fear of unfair competition), the inclusion of the forestry sector in EITI (as it is the case in Liberia, for instance) would level the playing field and oblige every concessionaire to disclose such information.

Systematic mapping of the customary territories (*finages*) in an out the concessions and participative management

This recommendation is the cornerstone of the evolution of the concession system. Community forests and industrial concessions are seen generally as mutually exclusive. On the other hand, within the framework of forest management certification, some companies have started mapping the customary territories overlapping the industrial concessions and use such maps as a key for benefits sharing with local investments decided jointly with communities and proportionate to the area of customary territory overlapping the industrial concession. These dynamics, if deepened and appropriated by public policies, may trigger a transformation of the concession system in Central Africa towards a recognition of overlapping rights associated with different “institutional layers” on the same area, and foster an evolution of the property rights exerted over the concession, making the communities stakeholders of the concessions. The overlapping areas might not only be a key element for benefit sharing, but they could also become joint management areas (including control of outsiders, poachers, illegal loggers...) with the development of non-timber economic activities in joint-ventures between the industrial concessionaires and the various communities. In that perspective, overlapping rights should be recognised by the legal frameworks but also the capacity of the stakeholders to valorise other resources than timber on the concession area. Preventing forest clearing by permanent cultivation inside the concessions would be a matter of contractual agreements that could be supported by PES projects to be undertaken in this framework.

Organization of the dual dimension of community forestry, combining overlapping areas and exclusive community concession areas

A new generation of forest regulations calls for benefit-sharing with “riparian” populations (Cameroon, Gabon), and/or for establishing “community development series” within the industrial concessions (Congo). In the DR Congo, the 2014 decree organizing community forestry paves the way for a dual conception of such forestry, with the distinction between the “forest of the local community” (that is, the customary territory that can overlap with industrial concessions) and the “community concession”, this latter being potentially a subdivision of the former but associated to an exclusive area (Vermeulen and Karsenty, 2014).

For community-based concessions, making room for exclusive rights by adjusting the industrial concession boundaries to allow for viable small-scale enterprises might be the second part of the strategy of recognizing and managing overlapping rights to promote joint management associating overlapping and exclusive rights for communities. Gazetting of Forest Management Units, not yet completed in Central Africa, would provide the opportunity for adjustments of the boundaries, when needed. To allow for this evolution, legal frameworks might be adapted and mainstreamed. Zoning policies based on strict land sparing should be reconsidered in favour of a more balanced approach allowing for land sharing.

Cancellation of concessions without management plans deposited after 4 years maximum

The credibility of management plans is mined by the absence or the modesty of sanctions for concessionaires not preparing or not implementing mandatory management plans. If verification of the implementation depends on the daily action of the Forest Service, with the potential help of Independent Observers, sanctions against those concessionaires lagging behind in the preparation of plans are technically easy to apply. In most cases, concessionaires are granted with a 3 year provisional contract during which they must prepare and make their plan approved by the Forest Service. But in many cases management plans are still “under preparation” several years after the expiration of that period and exploitation often ends without any management plan. A simple

“golden rule” would be the automatic cancellation of the concession contract after the 3 years period, with a maximum extension of one year for specific circumstances. Next forest codes could explicitly mention such a rule.

Use of transferable national quotas for log exports to be auctioned instead of LEB

There is broad consensus amongst forest economists about the negative impacts of log export bans (LEBs). The LEB can reduce value added if processing efficiency is below a certain threshold. When this is the case, high quality logs that could be exported at a premium price are instead processed in a plant in which efficiency is too low to generate sufficient added-value, leading to high opportunity costs compared to log exports. Experiences with LEBs in Africa have not created significant additional employment in the forest sector at a whole and have always resulted in a huge drop in the fiscal receipts.

For industrial development purposes, African governments have frequently requested logging firms to process a high proportion of their production. This is equivalent to establishing a quota on log exports on the annual production. Mandatory processing of a pre-determined portion of production imposes high overall compliance costs on the industry. Some firms might have competitive advantages in processing the totality of their production, while others may struggle to reach the mandatory threshold and might even do so at a cost. This results in a less-than-optimum outcome for the whole sector that prevents the progressive specialization of operators, the development of a domestic log market and an efficient allocation of timber for processing.

The alternative is to set up a quota of log export at national level, expressed in volume and calculated as a percentage of the estimated domestic production. Such a quota system would allocate the scarce timber export resource in the best possible way according to the industry's economic and technical characteristics and would minimize the overall economic cost associated with the reduction of the resource available for export. Such a quota would also guarantee a minimum supply of raw material to installed wood-processing units and is—in principle—quite easy to monitor as export points are limited and the maximum exportable volume is determined in advance. The choice for the initial award of “log export rights” (LER) includes:

- A free distribution, according to various criteria ;
- Sale at an administratively-determined price, be it flat or differentiated according to species;
- Auction with an additional efficiency condition of making LER transferable among exporters. In this case, the government can set up a floor price, which would be fine-tuned following a learning period. If LER are freely transferable, this will provide some flexibility and reduce the risks associated with the international prices thus encouraging higher bids. The government would choose one of these options according to its policy objectives. If it wants to favour a given category, for instance domestic entrepreneurs, it will probably opt for the first or second option. If the government decides to give priority to economic rent capture, then the auction solution is the appropriate one.

Organize logging rights of small-scale loggers with community concessions and in farmer's fallows by adapting tree tenure as in Côte d'Ivoire

Small-scale loggers are “criminalized” less by the legal framework (when artisanal permits are banned) than by the administrative practices making extremely difficult the regular obtaining of permits. In addition to potential incentives measures that could encourage Forest Officers to facilitate the obtaining of artisanal permits (Cerutti and Lescuyer, 2011), notably in legally established community forests, it seems necessary to provide farmers the ownership of trees they have kept in their fallows to allow them negotiating their exploitation with artisanal loggers. This principle has been introduced in the new forest code in Côte d'Ivoire. But to be enforced, this measure needs to be accompanied by a process of land mapping and identification, which is costly and whose

completion is a long-term perspective. Nonetheless, through REDD+ and PES initiatives, such land operations will certainly multiply and the tree tenure reform can be seen as necessary for evolving towards the issuing of legal exploitation by artisanal loggers.

**Provide incentives to certified forest concessions through tax cuts, for instance, area fees.
Foregone revenues would be compensated by international initiatives (such as REDD+ or FIP)**

Financial rewards could be given to concessionaires who comply with the law and commit themselves to independent auditing based on performance through forest management certification. One could consider that a concessionaire who invests in independent certification places himself under scrutiny and invests in its “reputation”. Certification is both a difficult and long process and easy to lose quickly. Compliance with law is the first requirement for internationally recognized certification schemes and works as an ally for the Forest Service with respect to law enforcement. Thus, tax cuts for certified concessions would be a wise policy and would return fractions of the captured economic rents to operators complying with the law, allowing them to offset the cost of their organizational investments and diversify their harvests, in line with management plan prescriptions.

To convince governments to give up such tangible fiscal revenues, the international community could propose to compensate governments for a given period (8 to 10 years) for the foregone revenues derived from the amount of area certified. Through the REDD+ process, donors are committed to support SFM as a tool to reduce forest degradation and prevent deforestation. By allowing tax cuts for certified concessions to be budget neutral for African governments, donors could contribute in an efficient way to the spread of better management practices and legality among concessionaires. This seems a realistic way to take up the idea embodied in the so-called “performance bond” scheme suggested by several authors (Blakeney 1993, Leruth et al., 2001) but whose implementation seems most difficult as long as it does not take into account the dynamics of independent certification schemes.

Earmark forest taxes for a fund devoted to cover the costs of certification and audits for the companies (mutualisation of the cost of certification)

Tax cuts for certified concessions might be difficult to implement if there is no perspective of international compensation. An alternative (or a complement) might be to earmark a fraction of the forest taxes paid by all loggers towards a fund co-chaired by the industry and the government (and with NGOs participation), which would allow for a mutualisation of the costs of the certification audits for concessionaires willing to move ahead.

Automatic refunding of VAT for the exporting industries (enforcement of CEMAC recommendation)

Some African countries (e.g. Côte d’Ivoire) have established specific extra-budgetary accounts (abounded by internal VAT receipts) to refund automatically the exporters. Such accounts could be located within a regional Central Bank (e.g. BCEAO or BEAC), a measure adopted in Burkina Faso. Forest concessionaires would be amongst the first beneficiaries of such a measure.

Public purchasing policies based on legality

Governments can decide that all public purchases should meet legality criteria in order to ban non-verified timber from public buildings.

References

- AFD (Agence Française de Développement), 2013. Note de communication publique d'opération -Côte d'Ivoire – C2D/Ressources naturelles.
www.afd.fr/base-projets/downloadDocument.action?idDocument=1468
- Asamoah Adam, K., Pinard, M. A., Swaine, M.D., 2006. Nine Decades of Regulating Timber Harvest from Forest Reserves and the Status of Residual Forests in Ghana, *International Forestry Review* Vol.8 (3).
- Boakye, K.A., Baffoe, K.A., 2007. Trends in forest ownership, forest resources tenure and institutional arrangements: are they contributing to better forest management and poverty reduction? A case study from Ghana. Rome, FAO.
- Boakye, J., 2015. Estimation of illegal logging by the formal timber sector in Ghana: implications for forest law compliance, enforcement and EU-Ghana voluntary partnership agreement, *International Forestry Review* 17 (2).
- Bahuchet S., 1993. *Histoire d'une civilisation forestière. Dans la forêt d'Afrique Centrale, les pygmées Aka et Baka*. Ed. Peeters.
- Bahuchet, S., de Maret P., Grenand F., Grenand P., 2001. *Des Forêts et des Hommes : un regard sur les peuples des forêts tropicales*. Ed. de l'Université de Bruxelles, APFT-ULB. 192 p.
- Barros, L.L., 2013. Ressources Naturelles, Droits et Politiques des Communautés Forestières au Congo: Architecture Légale et Institutionnelle. Client Earth.
- Blakeney, J. 1993. Performance Deposit: An Incentive for Sustainable Forest Management, in D'Silva E., Appanah S. *Forestry Management for Sustainable Development*, EDI Policy Seminar Report n°32, World Bank, Washington D.C.
- Bryant, D, Nielsen, D, Tangle, L., 1997. *The Last Frontier Forests: Ecosystems and Economies on the Edge*. Washington (DC): World Resources Institute.
- Carret, J.-C, 1998. L'entreprise au fondement de la cité. In : Tiphine F. & Agence française de développement (eds), *L'Afrique des entreprises*. Paris: La Documentation française.
- CED (Centre pour l'Environnement et le Développement), 2008. Etude CED sur la perception de l'impact de l'EFI par les populations locales, Yaoundé.
- Cerutti, P.O., Tacconi, L., 2006. Forests, Illegality, and livelihoods in Cameroon. CIFOR Working Paper 35.
www.cifor.cgiar.org/publications/pdf_files/WPapers/WP-35.pdf
- Cerutti, P.O., Lescuyer, G. 2011 Le marché domestique du sciage artisanal au Cameroun : état des lieux, opportunités et défis. Document Occasionnel 59. CIFOR.
- CIFOR (Eba'a Atyi, R., Lescuyer, G., Ngouhou Poufoun, J., Moulendé Fouda, T.), 2013. Étude de l'importance économique et sociale du secteur forestier et faunique au Cameroun.
- Ciparisse, G., (ed.), 2003. Multilingual thesaurus on land tenure, FAO. English Version.
www.fao.org/DOCREP/005/X2038E/X2038E00.HTM
- Conseil d'État, 1991. Arrêt du 30 mars 1916 - Compagnie générale d'éclairage de Bordeaux. Recueil des décisions du Conseil d'État statuant au contentieux et du Tribunal des conflits, des arrêts des cours administratives d'appel, et des tribunaux administratifs (Recueil Lebon). Paris: Sirey.
- Coquery-Vidrovitch, C., 2001. *Le Congo au temps des grandes compagnies concessionnaires, 1898-1930*. Réimpression de l'édition originale de 1972 (Monde d'outre-mer, passé et présent. Première série, Études, 37).
- Cuny, P., Abe'ele, P., Eboule Singa, N., Eyene Essomba, A., Djeukam, R., 2004. État des lieux de la foresterie communautaire au Cameroun, MINEF - DFID, Yaoundé.
- Cuny, P., 2011. État des lieux de la foresterie communautaire et communale au Cameroun. Tropenbos International.

- Defourny, P., Delhage, C., Kibambe J.-P., 2011. *Analyse quantitative des causes de la déforestation et de la dégradation des forêts en République Démocratique du Congo*, Louvain, Université Catholique de Louvain.
- Doucet, J.L., Delvingt, W., Jeanmart, P., Ntchandi-Otimbo, P.A., 2002. Pour une prise en compte pragmatique des aspects socio-environnementaux dans les plans d'aménagements forestiers. Project of technical assistance to the timber industry, Final report, FUSAGx-WWF, DGIS, Belgium.
- Durrieu de Madron, L., Fontez, B., Dipapoundji, B., 2000. Dégâts d'exploitation et de débardage en fonction de l'intensité d'exploitation en forêt dense humide d'Afrique centrale. *Bois et Forêts des Tropiques*, 264 (2).
- Eastin, I.L., Addae-Mensah, A., de-Graft Yartey, J., 1992. "Tropical timber boycotts: strategic implications for the Ghanaian timber industry", *Unasylva* Vol. 43 (3).
- Ellis-Cockcroft, I., Cotter, J., 2014. Tropical forest fragmentation; implication for ecosystem function. Technical Report (review) 02-2104, Greenpeace Research Laboratories.
- FERN, 2006. "Forest Governance in Ghana – An NGO perspective", Prepared by Forest Watch Ghana. www.fern.org/media/documents/document_3643_3644.pdf
- Forest Resources Management – Groupe Rougier, 2010. Résumé du plan d'aménagement de l'UFA Mokabi-Dzanga.
- Hansen, C. P., Lund J.F., 2016. Imagined Forestry: the history of scientific management of Ghana's High Forest Zone, forthcoming in *Environment and History*.
- Hansen, C.P., L. Damnyag, B.D. Obiri, Carlsen K. 2012. Revisiting illegal logging and the size of the domestic timber market: the case of Ghana, *International Forestry Review* 14 (1): 1–11.
- Inspection Panel (The), 2007. Investigation Report. Democratic Republic of the Congo: Transitional Support for Economic Recovery Grant (TSERO) (IDA Grant No. H 1920-DRC) and Emergency Economic and Social Reunification Support Project (EESRSP) (Credit No. 3824-DRC and Grant No. H 064-DRC). Report No. 40746 – ZR.
- Inspection Panel (The), 2011. Report and Recommendation, on Request for Inspection Liberia: Development Forestry Sector Management Project (Trust Funds Nos. TF057090-LR; TF096154-LR; and TF096170-LR).
- Internal Evaluation Group - World Bank, IFC, MIGA, 2013. Managing Forest Resources for Sustainable Development - An Evaluation of World Bank Group Experience. Washington D.C. <http://ieg.worldbankgroup.org/>
- ITTO, 2005. Status of Tropical Forest Management 2005. www.itto.or.jp/live/PageDisplayHandler?pageId=270
- Jégou C., Karsenty A., Singer B., 2008. Forest concessions in West and Central Africa: Social policies of concessionaires, Rights and Resources Initiative, Washington D.C. www.rightsandresources.org/publication_details.php?publicationID=1113
- Joiris, D. V., Bigombe Logo, P. (eds.), 2010. *Gestion participative des forêts d'Afrique centrale*. Quae Editions.
- Julve, C., Tabi, P., Nzoyem, N., Tchantchouang, J-C., Kerkhofs, B., Beauquin, A., Mbarga, J-P., Vermeulen, C., Cerutti, P.O., Lescuyer, G., 2013. Forêts communautaires camerounaises et Plan d'action 'Forest Law Enforcement, Governance and Trade' (FLEGT): quel prix pour la légalité ? *Bois et Forêts des Tropiques* 317 (3); 71-80.
- Kadio, A-A. 2009. Rapport national sur l'aménagement durable des forêts en Côte d'Ivoire suivant les critères et indicateurs de l'OIBT. Abidjan, Côte d'Ivoire, OIBT (ITTO) www.oibt-afrique.org/fr/system/files/1/Rapport
- Karsenty, A. 2007. Overview of Industrial Forest Concessions and Concession-based Industry in Central and West Africa and Consideration of Alternatives, CIRAD for Rights and Resources Initiative.
- Karsenty, A. 2010. Forest taxation regime for tropical forests: lessons from central Africa. *International Forestry Review* 12 (2).
- Karsenty, A., 2002. Le rôle controversé de la fiscalité forestière pour la gestion des forêts tropicales, *Cahiers d'Économie et de Sociologie Rurale* 64: 5-3.

- Karsenty, A., Gourlet-Fleury, S. 2006. [Assessing Sustainability of Logging Practices in the Congo Basin's Managed Forests: the Issue of Commercial Species Recovery](#). *Ecology and Society* 11 (1): 26.
- Karsenty, A., Roda, J.M., Milol, A., Fochivé, E., Kuetche, M., 2006. Second audit économique et financier du secteur forestier au Cameroun, Gouvernement du Cameroun (Ministère de l'Économie et des Finances).
- Karsenty, A., Vermeulen, C., 2016. Toward "Concessions 2.0": articulating inclusive and exclusive management in production forests in Central Africa, *International Forestry Review* Vol.18, (S1 – Special issue on forest concessions in Africa).
- Leruth, L., Paris, R., Ruzicka R., 2001. The Complier Pays Principle: The Limits of Fiscal Approaches Towards Sustainable Forest Management. IMF Staff Papers 48 (2).
- Lescuyer, G, Cerutti, P.O, Tshimpanga, P, Biloko, F, Adebu-Abdala, B, Tsanga, R, Yembe-Yembe, R.I., Essiane-Mendoula, E. 2014. Le marché domestique du sciage artisanal en République démocratique du Congo: Etat des lieux, opportunités, défis. Document occasionnel 110. CIFOR.
- Lescuyer, G., Yembe-Yembe, R. I., Cerutti, P. O. 2011 Le marché domestique du sciage artisanal en République du Congo : état des lieux, opportunités et défis. Document Occasionnel 71. CIFOR
- Mendes, A. Macqueen, D.J., 2006. "Raising forest revenues and employment: unlocking the potential of small and medium forest enterprises in Guyana". IIED Small and Medium Forest Enterprise Series No. 12. International Institute for Environment and Development, Edinburgh, UK.
- MINEF (Ministère des Eaux et des Forêts). 2014. « Bilan d'activités 2013 » Abidjan, Côte d'Ivoire, Direction de la Production et des Industries Forestières (DPIF).
- Morand, E., 2013. Évaluation du niveau d'implication des populations locales et autochtones dans la gestion des ressources forestières au sein des concessions forestières de la République du Congo. Document de Travail Projet Forêt et Diversification Économique (PFDE).
- Odoom F.K., 2005. "Chainsawing in the natural forests of Ghana. An assessment of the socio-economic impacts of this practice". Forest Harvesting case-study # 21, FAO, Rome.
www.fao.org/documents/pub_dett.asp?lang=ar&pub_id=212564
- Odyssée Développement, 2005, Étude de la contribution du secteur forestier à l'économie gabonaise", AFD, Paris, 2005. Not published.
- Ongolo, S., 2015. On the banality of forest governance fragmentation: Exploring "gecko politics" as a bureaucratic behaviour in limited statehood. *Forest Policy and Economics* 53, 12-20.
- Ongolo, S., Karsenty, A., 2015. The politics of forestland use in a cunning government: lessons for contemporary forest governance reforms, *International Forestry Review* Vol.17 (2).
- Rice, R.E., Sugal, C.A., Ratay, S.M., Fonseca, G.A., 2001. Sustainable forest management: A review of conventional wisdom, *Advances in Applied Biodiversity Science* 3, Washington, DC: CABS/Conservation International, Rome.
- Rickenbach, O., 2015. Forest dwellers and biodiversity in the context of industrial forestry: looking for a win-win collaboration. PhD thesis, ETH Zurich.
- Richards, M., 1995. Role of demand side incentives in fine grained protection: A case study of Ghana's tropical high forest. *Forest Ecology and Management* 78: 225-241.
- Roulet, P.A., 2005. Les concessions de safaris en Afrique centrale - Des Zones d'Intérêt Cynégétique aux zones de chasse sportive à gestion communautaire, Projet Gepac « Gestion participative en Afrique centrale » (Union Européenne). Bruxelles, 2007.
- Schmitt, A., Baketiba, B., 2015. Revue et analyse des principaux mécanismes de partage des bénéfices existants en République du Congo. The IDL Group & EFI.
- USAID, 2010. Property rights and resource governance – Liberia.
http://www.usaidlandtenure.net/sites/default/files/country-profiles/full-reports/USAID_Land_Tenure_Liberia_Profile.pdf

Topa, G., Karsenty, A., Mégevand, C., Debroux, L. 2009. The Rainforests of Cameroon: Experience and Evidence from a Decade of Reform, The World Bank (Serie: Directions in Development, Environment and Sustainable Development), Washington D.C.

Vermeulen, C., Karsenty, A., 2014. Les concessions forestières des communautés locales: une avancée potentielle pour la foresterie sociale en RDC. In : *Conjonctures congolaises 2014 - Politiques, territoires et ressources naturelles : changements et continuités*, L'Harmattan.

Vermeulen, C., Vandenhaute, M., Dethier, M., Ekodekc, H., Nguenang, G.-M., Delvingt, W. 2006. "De Kompia à Djolempoum : sur les sentiers tortueux de l'aménagement et de l'exploitation des forêts communautaires au Cameroun", *Vertigo*, vol.7, n° 1.

Vincent, J. R., Gibson C., Boscolo M., 2003. The Politics and Economics of Forest Reforms in Cameroon, The World Bank Institute: Washington, D.C. (unpublished).

APPENDICES

Comparative table of legal provisions for concessions, taxation regime, community forestry, commercial species and main export destinations

LEGAL PROVISIONS	Cameroon	Gabon	Congo (Rep.)	DR Congo	Centrafrican Republic (CAR)	Equatorial Guinea	Liberia	Côte d'Ivoire	Ghana
<i>Date of the Forest Law</i>	1994	2001 (being currently revised)	2000 (being currently revised)	2002	2000	1997, currently being revised (a draft law revision has been elaborated in 2014, pending approval)	2006	2014	1997 (Forest Timber management act)
<i>Zoning plan of forests, with vocations of various forests areas</i>	Yes, on the southern part of the country (dense forest area)	On-going process	No	No	No	An ecosystem map has been developed in 1999, showing production and conservation zones and comprehensive information on wood supply, flora and fauna.	No	No	
<i>Permanent Forest Estate (legally established, non-established through gazetting or another procedure)</i>	59 FMU gazetted, 55 pending.	No (only few gazetted forests), FMU not gazetted	No, but gazetting production FMUs (concessions) is contemplated to establish the PFE	No, the notion of FPE not in the Forest Code	No gazetted forests	legally established	1.2 million ha allocated. No legally established PFE	231 gazetted forests, 6 national parks and 8 natural reserves	Forest reserves were gazetted under colonial rule to create a permanent forest estate while allowing for the conversion over time of the remaining natural forest

LEGAL PROVISIONS	Cameroon	Gabon	Congo (Rep.)	DR Congo	Centrafrican Republic (CAR)	Equatorial Guinea	Liberia	Côte d'Ivoire	Ghana
									into other land uses. 1,6 million ha are gazetted as forest reserves
Allocation system for concessions	Public auctioning, with technical preselection (capacities), then technical proposal (30%) and financial offer (70%) for the area annual fee	Administrative commission analysing the proposals, but many discretionary allocations	Administrative commission analysing the proposals, discretionary allocations frequent	The Forest Code plans a bidding system (with possible exceptions), but since 2005 a moratorium has been established,	Since 2005 : Bidding mechanism similar to Cameroon but 40% for technical criteria et 60% for financial criteria	Discretionary	From 50,000 to 100,000 ha: bidding for societies with at least 51% ownership by Liberian citizens. Beyond: open internationally	Perimeters of Forest Exploitation (PEF) on the rural domain, in average 25,000 ha. Discretionary allocation.	In 2003 the Timber Resources Management (Amendment) Regulations inserted a procedure for competitive bidding. The bidding procedure is only open to pre-qualified companies of whom the one offering to pay the highest timber rights fee shall be awarded the TUC (Timber Utilization Contracts)
Area allocated for concessions	7,2 million ha	Around 14 million ha	12.5 million ha	Around 12 million ha	3,7 million	740,000 ha	2.3 million	Around 700,000 ha (PEF)	3. 2 million: 1.8 million ha under long-term

LEGAL PROVISIONS	Cameroon	Gabon	Congo (Rep.)	DR Congo	Centrafrican Republic (CAR)	Equatorial Guinea	Liberia	Côte d'Ivoire	Ghana
								“Forêts classées” managed by the SODEFOR not accounted for (are not concessions)	contracts (typically between 40 and 99 years) and 1.4 million ha under short-term (typically five-year) contracts
Legal duration of the concessions	15 years, renewable once	One rotation (25 years), renewable	15 or 25 years renewable	25 years	For the life span of the society (up to 99 years)	From 5 to 20 years renewable	25 years, renewable	10 to 20 years	40 years
Management Plan (MP) of concessions	The MP should be prepared during the 3 years allowed by the temporary convention contract (3 years) , but often	Same as in Cameroon. Many FMUs not yet with a management plan approved	Same system as in Cameroon. In the North of the country, concessions are with MP, but only few in the South	Mandatory since the new code. Not all the concessions with MP	Only country where the making of the MP is done by a public structure (the PARPAF project) and the concessionaires.	Mandatory, but not really enforced	Mandatory. Forests degraded by previous logging and human settlements. Probable unrealistic management plans.	No genuine management plans in the PFE, few management plans prepared by the SODEFOR on the gazetted forests	Mandatory
Log export regime	Local transformation mandatory for category	Full log export ban since 2010-2011.	Log export allowed up to 15% of the production of each concessionaire. In	Normally 70% of the production of each concessionaire should be	60% of the production should be processed locally.	Minimum of 50 % of local processing, overtax on log exports if not	Log exports authorized from concessions (banned for Private Use Permits)	Log export prohibited	Log exports prohibited since 1995. The legislation

LEGAL PROVISIONS	Cameroon	Gabon	Congo (Rep.)	DR Congo	Centrafrican Republic (CAR)	Equatorial Guinea	Liberia	Côte d'Ivoire	Ghana
	1 species (so-called traditional), exportations allowed based on individual quotas (for ayous and azobe) against the payment of an overtax for the other species.		practice, exports well above the quotas	transformed locally. Poorly implemented	A finance law (2000) raised the threshold at 77%. Poorly implemented	fulfilled. Poorly implemented.			requires all wood-processing firms to supply 20% of their production to the domestic market, but this is not enforced
Taxation regime and redistribution to local entities	<p>Annual Area Fee (AAF) set by bidding. Average: 3000 FCFA/ha (5 USD)</p> <p>Felling tax: 2.5% of a so-called FOB value of the log (not updated)</p> <p>Export taxes logs :</p>	<p>Annual Area Fee: 400 FCFA (0.7 USD) / ha</p> <p>However, since 2009, bilateral agreements between some companies and the Govt lowering the amount</p> <p>Felling tax : 3%, 5% or 9% of a so-called FOB value (varying with zone), collected at the export by the Custom administration (based on</p>	<p>Annual Area Fee: 350 FCFA (0.58 USD) /ha (North)</p> <p>500 FCFA (0.8 USD) /ha (South)</p> <p>Discount of 20 % in average for adjustment to productive areas</p> <p>Felling tax: 3% of the "Free On Truck" value (FOB minus transport cost)</p> <p>Export taxes on</p>	<p>Annual Area Fee: 0.60\$/ha</p> <p>When management plan agreed, adjusted for the productive area only</p> <p>Reforestation tax: 4% of the "Ex Works" value (administrative FOB price minus average transport cost by zone) per m3 exported</p> <p>2% for Tola (promotion</p>	<p>Annual Area Fee: 500 FCFA/ha/year (0.83 USD)</p> <p>Felling tax: 7% on mercurial value (FOB LM minus 40%)</p> <p>Reforestation tax : 11% mercurial value</p> <p>Log export tax : 10.5 % Free On Truck (FOT)</p>	<p>Annual Area Fee: between 2500 et 3000 FCFA/ha (4.5 – 5 USD) depending on zones</p> <p>Felling tax : 80 % of the stumpage value (itself defined as 8% of an administrative FOB)</p> <p>Log export</p>	<p>Annual Bid Premium (Area-Based)</p> <p>(Bids ranged between USD 5 to 20/ha/year)</p> <p>+ Annual Area Fee : 2.50 USD/ ha /year</p> <p>Felling tax: log stumpage fee based on species class: 2.5% to 10% FOB</p> <p>Log export tax:</p>	<p>Attribution tax: USD 0.5/ha (once)</p> <p>Area tax: USD 0.16/ha/year</p> <p>Export tax (D.U.S.)</p>	<p>Timber rights fee: annual lump-sum fee for the entire concession area, paid by the logging company. Timber rights are awarded to the bidder who offers the highest annual timber rights fee</p> <p>Stumpage fee: 35% of the FOB price</p>

LEGAL PROVISIONS	Cameroon	Gabon	Congo (Rep.)	DR Congo	Centrafrican Republic (CAR)	Equatorial Guinea	Liberia	Côte d'Ivoire	Ghana
	17.5% (an overtax of around 8,5 USD is due for some species such as Ayous)	equivalent roundwood) No tax on processed timber	logs: from 8.5 à 10 % of an administrative FOB value - depending on zones	specie). Levied only on logs exported	value (administrative FOB price minus average transport cost - 2 zones)	taxes: 30 % administrative FOB value	from 2% to 10% of FOB price (varying with species)		of the stumpage. Since 2004 the stumpage fees for timber exploitation have not been reviewed.
Export taxes processed wood: 5.65% on the estimated FOB value of the processed timber		800 FCFA (1.33 USD) per m ³ to be invested by the company in development activities for communities which customary territory overlaps with the concession	From 0.5 to 4.5% of an administrative FOB value	Felling tax ; 1.25% of the Ex Works value (average transport cost : 50 - 80 USD)	Processed timber: 4.5 % FOT value (on some species only)	Processed timber: 10% of and administrative FOB value	Community benefits: \$1.50/m ³		
			200 FCFA (0.33 USD)) per m ³ to be invested by the company in development activities for communities on "social development" series within the concession	Log export tax : 10% administrative FOB value			Benefit-sharing provisions for local communities should be in the form of a 30% share in the land rental fees paid by concession-holders, and the social agreements should specify benefits and access rights that are to be accorded to affected communities		3% levy on wood export (based on FOB value)
50% of the AAF for the local councils (6.5 million USD in 2013): half of this amount to the local council of the concession, the other half				Processed timber: 5% of and administrative FOB value					Contract area rent (when the permit is on Stool land): USD 317 year/ha for forest reserves: going to the Office of the Administrator of Stool Lands (OASL)
				<i>25% of the AAF for the Province and 15% for the administrative territory</i>					Stumpage fee: 50% is deducted by the Forestry

LEGAL PROVISIONS	Cameroon	Gabon	Congo (Rep.)	DR Congo	Centrafrican Republic (CAR)	Equatorial Guinea	Liberia	Côte d'Ivoire	Ghana
	redistribute d by a Fund (FEICOM) for redistributi on and equalization between local councils								Commission and the other 50% is split between the OASL and other beneficiaries
	The 10 % of the AAF earmarked for the riparian local communitie s has been suppressed since 2014								
Certification (forest management)	3 societies certified (14 FMUs)	3 societies certified (4 FMUs) (2.05 million ha)	2 societies certified (4 FMUs) (2.47 million ha)	0	0	0	0	0	0
<i>Legality certification not taken into account</i>	(940,000 ha) (one certified concession closed in 2009, another								

LEGAL PROVISIONS	Cameroon	Gabon	Congo (Rep.)	DR Congo	Centrafrican Republic (CAR)	Equatorial Guinea	Liberia	Côte d'Ivoire	Ghana
	certified concession dropped the FSC in 2014)								
Legality certification (OLB, VLC or FSC-CW)	2,468,000 ha	0	583,000	0	0	0	0	0	0
Maximum of surface for companies	200,000 ha by society (several large groups handle more than 200,000 ha up to 600,00 ha)	600,000 ha, but 3 societies get in their name more than 700.000 ha	No ceiling	500,000 ha (except previous rights, some groups or societies control more than 3 million ha)	No ceiling	50,000 ha (one Malaysian society,, Shimmer International, control around 280.000 ha)	400,000 ha (minimum 50,000 ha for concessions)	20.000 ha	
Community forests or community concessions	Community forests (5,000 ha maxi) 167 created 14 in operation (51,000 ha) for 26,000 m ³ allowed annually Local council	3 effective community forests Maximum of 10,000 ha	The new forest code to be adopted allowed for community forestry	Community concessions and/or "forests of the local community" Up to 50,000 ha Decree issued end of 2014	6 pilot community forests (project interrupted) but no legal provision	« Bosques comunales » where rural communities have permanent use right recognized	31% of the forests under community forestry	Forest of the rural communities allowed by the 2014 forest law	"Stool lands" (lands owned by pre-colonial communities, symbolized by wooden stools), but not working as community concessions

LEGAL PROVISIONS	Cameroon	Gabon	Congo (Rep.)	DR Congo	Centrafrican Republic (CAR)	Equatorial Guinea	Liberia	Côte d'Ivoire	Ghana
	forests (minimum 32) : 770,000 ha								
Comments	Management plans not effectively implemented in many concessions, questioning the sustainability of the management of large tracts of the PFE.	Forest concessions hit by the LEB, fiscal receipts dropped dramatically.	The southern part of the country still largely unregulated. One of the two very large certified companies for sold.	Taxes poorly recovered (especially the are fees). With the decentralization (provinces recovering some taxes), very difficult to get accurate figures on taxes paid	Lack of transparency exacerbated with the recent political crisis	Country AAC set at 450,000 m ³ . De facto monopoly of a largest Malaysian company (branch of Rimbanan Hijau).	Taxation: extremely high level of fiscal pressure. Only 5% of fixed taxes (bids, area tax, and administrative fees) were recovered in 2012. Overbidding seems systematic with the intention of renegotiating with the Govt aftermath. Sustainability questionable: all the forests overlogged in the last 10-15 years	Timber sector in rapid decline. Gazetted forests massively deforested and degraded by small-scale farmers. With the new forest law giving tree tenure to farmers, PFE (concessions in the rural domain) likely to be dropped progressively	Actual harvest (industrial and chainsaw loggers) around 6 million m ³ /year (Lund et al., 2012), 3 times the AAC
Main commercial species harvested	Ayous (<i>Triplochiton scleroxylon</i>) Sapelli (<i>Entandrophragma cylindricum</i>) Tali (<i>Erythrophl</i>	Sapelli (<i>Entandrophragma cylindricum</i>), Okoumé (<i>Aucoumea klaineana</i>)	Sapelli (<i>Entandrophragma cylindricum</i>) Ayous (<i>Triplochiton scleroxylon</i>)	Sapelli (<i>Entandrophragma cylindricum</i>) Tola (<i>Prioria balsamiferum</i>) Wenge (<i>Millettia Laurentii</i>) Afrormosia (<i>Pericopsis elata</i>)	Okoumé (<i>Aucoumea klaineana</i>)	Okoumé (<i>Aucoumea klaineana</i>)	Fromager/Kapokier (<i>Ceiba pentandra</i>) Samba (<i>Triplochiton scleroxylon</i>)	Wawa (<i>Triplochiton scleroxylon</i>)	Niangon (<i>Heritiera utilis</i>)

LEGAL PROVISIONS	Cameroon	Gabon	Congo (Rep.)	DR Congo	Centrafrican Republic (CAR)	Equatorial Guinea	Liberia	Côte d'Ivoire	Ghana
	<i>eum suaveolens</i>								
Main export countries	China and India for logs, EU and China for sawnwood	China and Vietnam for logs, EU and China for sawnwood	Mainly EU for sawnwood, China for logs	China for logs, mainly EU for processed products	China, Vietnam, EU	China	EU, USA	EU, India and neighbouring African countries	China and EU

