The evolution and challenges of wood industry in the Congo Basin

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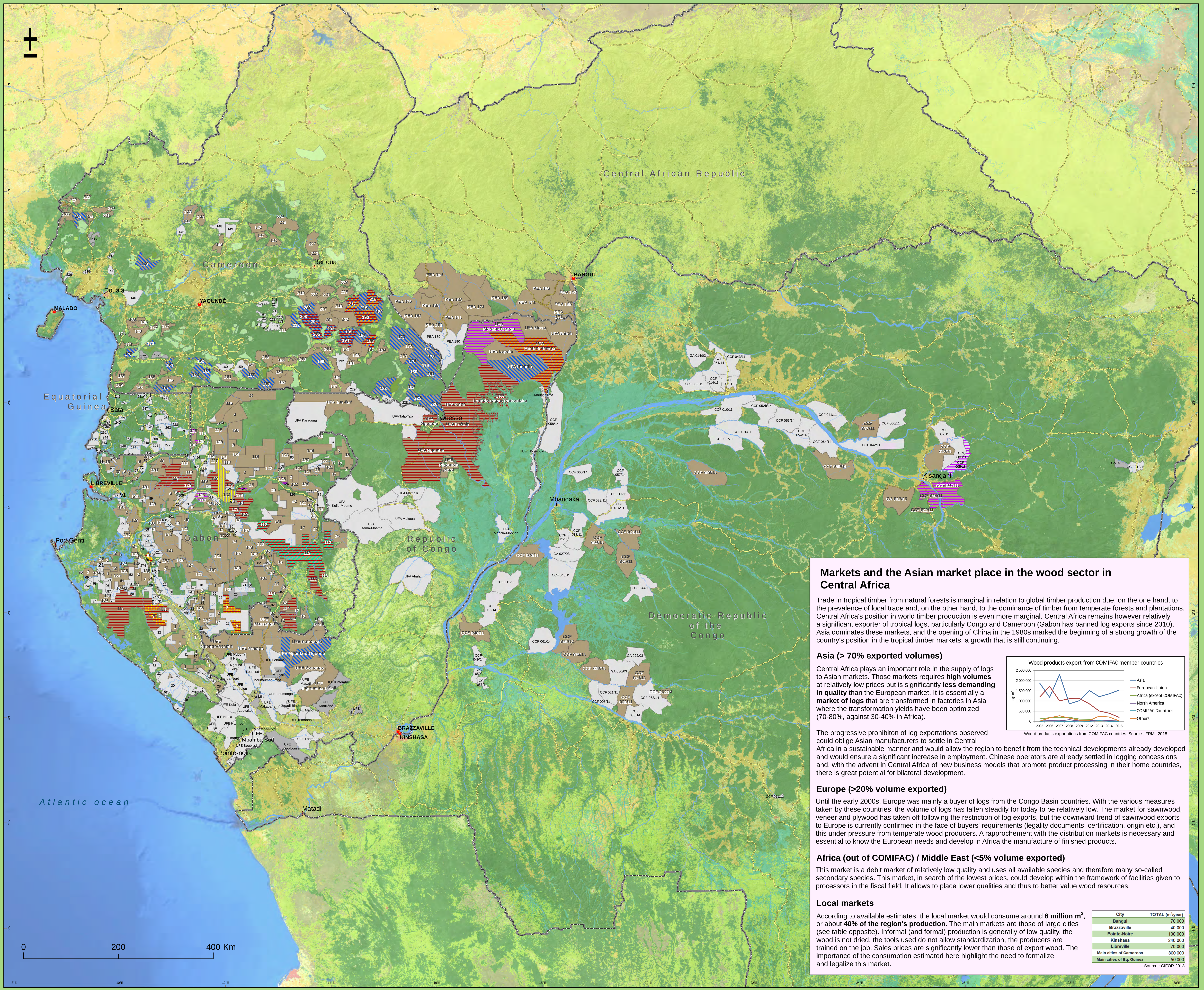


Markets and the Asian market place in the wood sector in Central Africa

Trade in tropical timber from natural forests is marginal in relation to global timber production due, on the one hand, to the prevalence of local trade and, on the other hand, to the dominance of timber from temperate forests and plantations. Central Africa's position in world timber production is even more marginal. Central Africa remains however relatively a significant exporter of tropical logs, particularly Congo and Cameroon (Gabon has banned log exports since 2010). Asia dominates these markets, and the opening of China in the 1980s marked the beginning of a strong growth of the country's position in the tropical timber markets, a growth that is still continuing.

Asia (> 70% exported volumes)

Central Africa plays an important role in the supply of logs to Asian markets. Those markets requires **high volumes** at relatively low prices but is significantly **less demanding in quality** than the European market. It is essentially a **market of logs** that are transformed in factories in Asia where the transformation yields have been optimized (70-80%, against 30-40% in Africa).

Woord products exportations from COMIFAC countries. Source : FRMi, 2018

The progressive prohibiton of log exportations observed could oblige Asian manufacturers to settle in Central Africa in a sustainable manner and would allow the region to benefit from the technical developments already developed and would ensure a significant increase in employment. Chinese operators are already settled in logging concessions and, with the advent in Central Africa of new business models that promote product processing in their home countries, there is great potential for bilateral development.

Europe (>20% volume exported)

Until the early 2000s, Europe was mainly a buyer of logs from the Congo Basin countries. With the various measures taken by these countries, the volume of logs has fallen steadily for today to be relatively low. The market for sawnwood, veneer and plywood has taken off following the restriction of log exports, but the downward trend of sawnwood exports to Europe is currently confirmed in the face of buyers' requirements (legality documents, certification, origin etc.), and this under pressure from temperate wood producers. A rapprochement with the distribution markets is necessary and essential to know the European needs and develop in Africa the manufacture of finished products.

Africa (out of COMIFAC) / Middle East (<5% volume exported)

This market is a debit market of relatively low quality and uses all available species and therefore many so-called secondary species. This market, in search of the lowest prices, could develop within the framework of facilities given to processors in the fiscal field. It allows to place lower qualities and thus to better value wood resources.

Local markets

According to available estimates, the local market would consume around **6 million m^3**, or about **40% of the region's production**. The main markets are those of large cities (see table opposite). Informal (and formal) production is generally of low quality, the wood is not dried, the tools used do not allow standardization, the producers are trained on the job. Sales prices are significantly lower than those of export wood. The importance of the consumption estimated here highlight the need to formalize and legalize this market.

City	TOTAL (m^3/year)
Bangui	70 000
Brazzaville	40 000
Pointe-Noire	100 000
Kinshasa	240 000
Libreville	70 000
Main cities of Cameroon	800 000
Main cities of Eq. Guinea	50 000

Source : CIFOR 2018

SWOT analysis of the sector

STRENGTH	WEAKNESSES
A tried and tested **sustainable forest management model**, deployed in the last 20 years in all countries of the Congo Basin, with a revision of forest codes. **50 million ha** of wood-producing forest, mostly inventoried, mapped, which allows timber production to be planned over the coming decades. A **unique**, **high quality, tropical raw material**, with often specific markets always demanding, with abundant reserves. One of the largest deposits in the world after large areas of tropical forests have already disappeared in Asia and South America.	A **low rate of industrialization** and industries that **value too little wood raw material**, despite the efforts of the States, and structural solutions to put in place to increase it. **Deficient logistical infrastructure**, although recent progress can be observed, and **heavy investment is required** to access and facilitate traffic in these often isolated and remote areas.
OPPORTUNITIES	**THREATS**
The Congo Basin **forest is heavily under-exploited**, with a contribution to GDP and employment well below its potential. **World demand f**or wood, and even more so on the African continent in the 21st century will only increase as for any biobased, carbon-neutral and sustainable product	The **strong pressure of agriculture** and the removal of **wood energy**, which will only increase; the main factors of degradation and deforestation urgently calling for structural measures. Too much **informal/illegal logging**, particularly in some countries (Cameroon and DRC), representing both a great threat to the integrity of forests and the economic performance of the wood processing industry, but also a loss of revenues for the state.

Industrial models of the wood industry

Four models can de distinguished currently in the region for the wood industry :

1. **Non industrialized model**, focused on the export of raw material, logs ;

This model was predominant until the 1990s. It was then undermined by state policies prohibiting the export of logs. It is still practiced by some companies bypassing existing regulations or taking advantage of loopholes in regulation.

2. **Integrated industrial model** Forest/Exploitation/ Transformation/Trade ;

Initially appeared under duress in the 1970s, only some operators have managed to fully integrate this industrial model. In this model, wood processing is therefore mainly carried out by forest concessionaires, which limits the development of the internal market because of the lack of large volumes of logs.

3. **Mixed industrial model**, partially integrated with the establishment of an internal market for logs ;

In this model, which exists almost exclusively in Cameroon and Gabon, there is an internal market for logs, which allows for a greater specialization of loggers and industrials of primary wood processing and thus better performance. The success of this model imposes the existence of a sufficient supply and demand in logs.

4. Model with development of a very specialized industry through the establishment of a **Special Economic Zone** ;

This model has been developing in Gabon for a few years now and constitutes a real revolution in the wood industry in Central Africa, like the Nkok Economic Zone which offers a set of advantages:
- for the **establishment of companies** : single desk, simplified administrative formalities;
- by offering **common services** : shared infrastructures, logistics, energy supply ;
- in **tax terms** : exemptions or preferential rates on income tax, ...

This model is not intended to be exclusive in a country and may even be beneficial to companies following other models by offering them opportunities for certain log production.

Logistics and transport

The dense humid forests of the Congo Basin are located in **remote or even completely isolated areas**. The dependence of the forestry sector on logistics infrastructure and the transport sector is therefore extremely strong. Depending on the countries and sub-regional contexts, the costs associated with wood logistics can represent **30 to 60% of the cost price** of the product on the local market or at the port of export.

Historically, the corrdiors (transport axes) were organized following the watersheds and the preferred means of transport were the navigable rivers as well as the railway lines. However, the poor condition of some of them and important recent developments have given way to a **predominance of road transport**, yet much more expensive in m^3-km.

In view of the impact of these transport costs on the profitability of the sector, any development of the timber industry must be considered concomitantly with that of the transport sector and road, rail, river and port infrastructure.

Informal sector

As in other sectors and in Africa as a whole, the economy of the timber sector in Central Africa is characterized by a **high degree of informality**. Informal production is largely provided by artisanal or semi-industrial operators and of illegal origin, but this is not systematic and efforts can be made to formalize and legalize in the future productions, even artisanal .

The log harvest associated with this production is estimated at **6.5 million m^3 in Central Africa** (CIFOR, 2018), constituting about 48% of the region's production. These informal sector outputs come from unaffected forest areas.

The **majority of informal production is consumed in the countries** of production, a minority is exported, mainly in the form of sawnwood and to neighboring countries. The only countries relatively large numbers of logs or sawn timber are Cameroon and the DRC, which export nearly 200 000 m3 of sawnwood (110 000 for the DRC and 80 000 for Cameroon), about 10% of their estimated total informal production (FRMi, 2018).

Taxes and informal taxes

Forest taxation is a specific tax **in addition to the general taxation** of companies, customs taxes (import / export) and other taxes applied to sectors directly related to forestry. It is composed of two instruments: **royalties** (rent collection tools) and **forest taxes** (guidance instruments for operating and management practices).

The Congo Basin countries' fiscal pressure on logs has some **regional coherence** (20-30eur /m^3) **except for Cameroon** (more than 50eur/m^3. With regard to sawn timber, Gabon applies a low tax burden (20eur/m^3) which can be interpreted as state support for the important industrial change initiated since 2010 (log export ban). Cameroon maintains here also a greater tax pressure (70eur/m^3).

In addition to this taxation, **a parafiscal system** includes deductions pre-allocated to the operation of the public administration (State) or public establishment, as well as **administrative costs** that are collected by certain public enterprises converted into commercial companies. Their sum can be very significant, or even **higher than the forest taxation itself**.

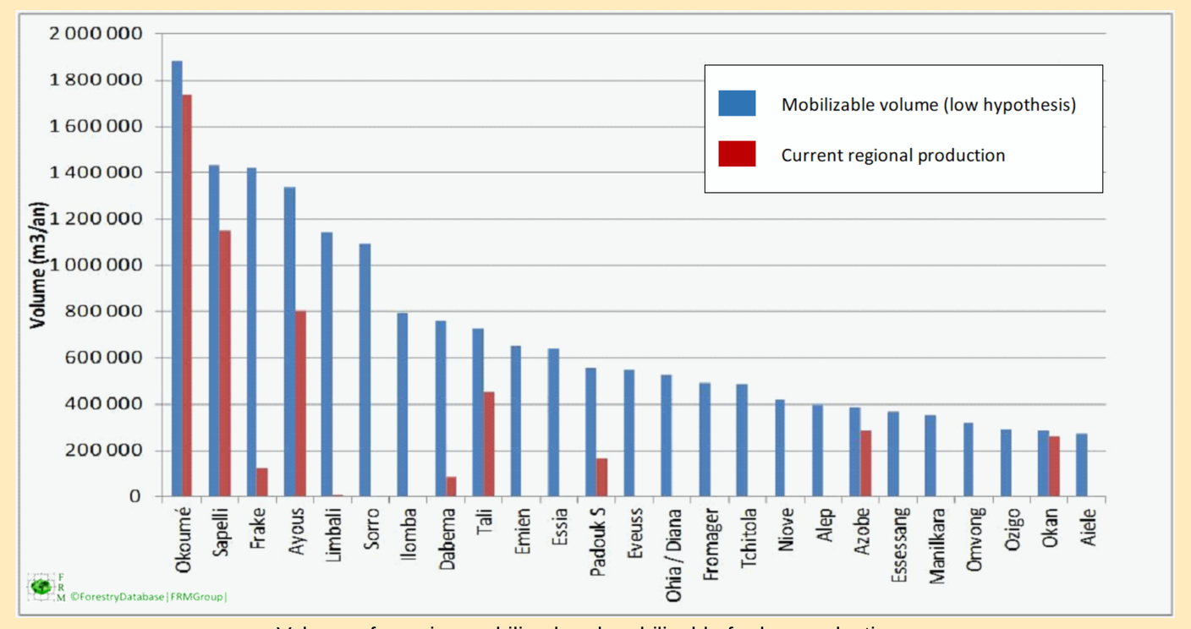
Forest plantations

Despite the growing importance of plantations in the global production of roundwood (50% of the roundwood volume for 7% of forest areas), these are still **barely present in Central Africa**. Their **productivity is nearly 7 times higher than the global forest average** and tropical plantations are much more productive than temperate plantations and subtropical. A recent FAO report indicates that around **400 million ha** of unused and unoccupied fertile land in sub-Saharan Africa would be available for forest and other plantations.

However, recent failures and successes observed in the region, and the current under-exploitation of natural forests, make it necessary to clearly **distinguish the sectors and markets** between natural forests and plantations outside forests.

Forest logging

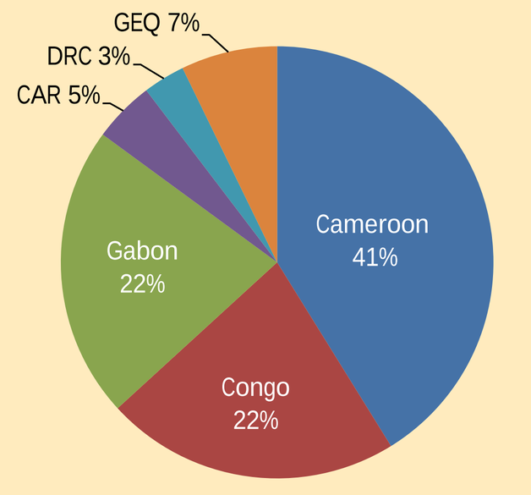
Forest logging in the Congo Basin, with an production estimated around 7 millions m^3 of logs per year, represents a **marginal fraction (1%) of the global timer production** (i.e., 5% of tropical logs production). This production remains narrowly based : although 150 species with a potential of at leat 15 000 m^3/year have been identified, only 20 of them are harvested of wich **3 species ensure 2/3 of the production** (Sapelli, Ayous and Okoumé). Other species such as Tali, Paduk, Dabema, Iroko, Ilomba are present in a very large part of the region.



Volume of species mobilized and mobilizable for log production in the Congo Basin. Source : FRMi, 2018

Conservative estimations show a quantiy of 14 to 18 millions m^3 of logs available each year on the 54 current commercial species. This means that wood resources are abundant and very little valued except for a few species (i.e., 90% of the potential of Okoumé is currently harvested). **Many species are not exploited** (see graph above).

Three countries produce more than 80% of the Congo Basin log production (see gaph below). Timber extraction rate per hectare is low (4 to 15 m3 / ha) but varies significantly between countries with rates observed in Equatorial Guinea more thant twice the average rate of the other countries.

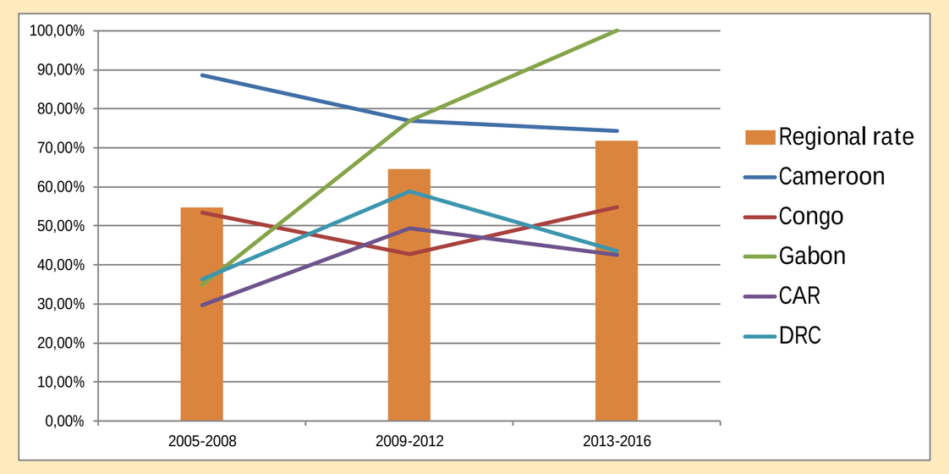


Repartition of timber production (av. 2012-2016). Source : FRMi, 2018

Industrialization of the sector

In recent decades, Central African countries have strengthened their legal frameworks regarding the industralization of the timber sector. Currently, **2/3 of the regional production is transformed inside countries borders**, the other third is exported as logs.

This regional trend is contrasted between countries, with Gabon transforming 100% their log production before exportation. This number goes down to 75% for Cameroun, 40-60% for DRC, RCA and Congo and only a fraction (less than 5%) for Equatorial Guinea.



Industrialization rate by country. Source : FRMi, 2018

However activities remains **limited to primary processing** with 80% of sawnwoods and 20% of plywoods and veneering/slicings generated. Again, it should be noted here the exception of Gabon, become the 6th world producer of veneers. **Processing yields are still very low**, in line with the current industrial model, which favors the export of primary products to demanding export markets in quality.

Industrialization rate by country. Source : FRMi, 2018

N°	Name / Gabon
1	CPAET MPB 2
2	CFAD PENG XIN Makoukou
3	CFAD TALIBOIS
4	CFAD TTIB
5	CPAET BAYONNE
6	CFAD BSG
7	CFAD BSO Mitzic-Nord Lara
8	CFAD CAEB
9	CFAD CORAWOOD UFA 3
10	CPAET DIKINGUI
11	CPAET EBDG
12	CFAD EFM-SSMO UFA 1+2
13	CPAET SFBT
14	CPAET EGG
15	CFAC ENB
16	CFAD AFRICA VIEW
17	CFAD FDG
18	CPAET GABON ADVANCE WOOD (GAW)
19	CPAET TBNI OKANO
20	CPAET Grande Mayumba (GMDC)
21	CPAET GSEZ Lambaréné-Lacs
22	CPAET GSEZ Sud Ngounié
23	CPAET GTBB
24	CPAET SICT-Mouyébi
25	CPAET IBNG
26	CPAET IMENOU Plateau
27	CPAET KOMO
28	CPAET KOROKOSSI
29	CPAET LGFIB
30	CPAET LUSOLOC
31	CPAET Lynn Timber
32	CFAD MINVOUL (GIW)
33	CPAET SNBG-OVG
34	CFAD SNBG Lopé
35	CPAET SNBG Ogooué-Ivindo
36	CPAET SUNLY Est Okondja
37	CFAD TAURIAN Resources Gabon
38	CFAD TLP
39	CFAD WAN CHUAN TIMBER
40	CFAD NOII (New Oriental Int. Investment)
41	CPAET YARIM
42	CPAET Zolendé (GSEZ & OLAM Gabon)
43	PFA-01-09-1-1
44	PFA-02-09-1-1
45	PFA-02-12-1-2
46	PFA-02-12-2-2
47	PFA-03-09-1-1
48	PFA-03-12-1-2
49	PFA-03-12-2-2
50	PFA-11-91-1-1
51	PFA-114-03-1-1
52	CPAET OBANGUE
53	PFA-04-09-1-1
54	PFA-12-09-1-1
55	PFA-04-12-1-1
56	PFA-124-03-1-1
57	PFA-05-97-1-1
58	PFA-13-92-1-1
59	PFA-06-01-1-b
60	PFA-147-03-1-1
61	PFA-09-88-1-1
62	PFA-25-13-1-5
63	PFA-09-97-1-1
64	PFA-25-13-2-5
65	PFA-103-03-1-1
66	PFA-25-13-3-5
67	PFA-105-11-1-2
68	PFA-25-13-4-5
69	PFA-25-13-5-5
70	PFA-26-93-1-1
71	PFA-03-92-1-1
72	PFA-28-13-1-5
73	PFA-28-13-2-5
74	PFA-28-13-3-5
75	PFA-28-13-4-5
76	PFA-28-13-5-5
77	PFA-29-93-1-3
78	PFA-29-93-2-3
79	PFA-33-96-2-2
80	PFA-37-03-1-1
81	PFA-39-96-1-1
82	CFAD OGOOUE (GAW)
83	PFA-42-00-1-1
84	PFA-45-03-1-1
85	PFA-48-01-1-1
86	PFA-48-02-1-1
87	PFA-50-95-1-1
88	PFA-51-98-1-1
89	PFA-52-00-1-1
90	PFA-53-02-1-1
91	PFA-53-04-1-1
92	PFA-56-04-1-1
93	CPAET Okano-TCBG
94	PFA-57-03-1-1
95	PFA-61-09-1-1
96	PFA-66-94-1-1
97	PFA-67-04-1-1
98	PFA-70-02-2-2
99	PFA-80-11-1-1
100	PFA-93-04-1-2
101	PFA-93-04-2-2
102	PFA-99-04-1-1
103	PI-05-90-1-1
104	CFAD OLAM MOMBA
105	PI-10-00-5-5
106	CFAD Bokoué-Lobé
107	CFAD BONUS HARVEST + CIPLAC
108	CFAD BORDAMUR + TOUJOURS VERT
109	CFAD BSO Abanga
110	CFAD BSO Okano
111	CFAD CBG Mandji
112	CFAD CEB - Precious Wood
113	CFAD CIFHO Léké
114	CFAD CIFHO Moyabi
115	CFAD OYEM (GIW)
116	CFAD CORAWOOD UFA 1 Lassio / UFA 2
117	CFAD FOREEX
118	CFAD SYIBIG
119	CFAD GRAND BOIS
120	CFAD HUA JIA
121	CFAD LEROY GABON Gongué
122	CFAD TBNI 1&2
123	CFAD KHLL Forestry SA
124	CFAD OSSIE Industrie
125	CFAD RFM
126	CFAD PAT-TIMBER
127	CFAD RIMBUNAN HIJAU
128	CFAD ROUGIER Haut Abanga
129	CFAD ROUGIER Ogooué-Ivindo
130	CFAD SBL
131	CFAD SEEF
132	CFAD SFIK
133	CFAD SOMIVAB
134	CFAD STIBG
135	CFAD SUNLY Centre Sud
136	CFAD SUNRY Nord-Est Mekambo
274	CPAET GMM
N°	**Name / Cameroon**
137	UFA 00-001 / UFA 00-002
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139	UFA 00-004
140	UFA 07-002
141	UFA 07-003
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143	UFA 08-003
144	UFA 08-004
145	UFA 08-005
146	UFA 08-006
147	UFA 08-007
148	UFA 08-008
149	UFA 08-009
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153	UFA 09-004b
154	UFA 09-005b
155	UFA 09-006
156	UFA 09-007 / UFA 09-008
157	UFA 09-011
158	UFA 09-012
159	UFA 09-013
160	UFA 09-015
161	UFA 09-016
162	UFA 09-017 / UFA 09-018
163	UFA 09-019
164	UFA 09-020
165	UFA 09-021
166	UFA 09-022
167	UFA 09-023
168	UFA 09-024
169	UFA 09-025
170	UFA 09-026 / UFA 09-027
171	UFA 09-028
172	UFA 09-029
173	UFA 10-001 / UFA 10-002 / UFA 10-003 / UFA 10-004
174	UFA 10-005a
175	UFA 10-005b
176	UFA 10-007
177	UFA 10-008
178	UFA 10-009
179	UFA 10-010
180	UFA 10-011
181	UFA 10-012
182	UFA 10-013
183	UFA 10-015
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185	UFA 10-020
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187	UFA 10-022
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213	UFA 10-048
214	UFA 10-049 / UFA 10-050
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216	UFA 10-052
217	UFA 10-053
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222	UFA 10-059 / UFA 10-060
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227	UFA 10-065
228	UFA 10-066
229	UFA 10-067
230	UFA 11-001
231	UFA 11-002
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236	UFA 11-008
N°	**Name / Equatorial Guinea**
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238	CF aa_1126_012_CHILBO
239	CF aa_1139_012-Yeray
240	CF aa_1143_012_EMILPS
241	CF aa_129_005_SOFMAL
242	CF aa_158_012_Gaspar AFUGU
243	CF aa_170_012_GEMASA
244	CF aa_180_012_FANA
245	CF aa_240_009_SHIMMER
246	CF aa_246_011_Antonio Mba Nguama
247	CF aa_262_012_SOFMAL
248	CF aa_299_011_SIJIFO
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254	CF aa_305_011_RMTL
255	CF aa_306_011_SOFMAL
256	CF aa_345_013_COMALI
257	CF aa_351_011_ECAMAD
258	CF aa_364_010_JONKOMBA
259	CF aa_581_007_RMT
260	CF aa_815_012_SIJIFO
261	CF aa_822_012_CHANGXIA
262	CF aa_855_012_RMT
263	CF aa_996_012_SHIMMER
264	CF cm_otorgado_CHILBO
265	CF cm_otorgado_FANA
266	CF Decreto_109_1993
267	CF Decreto_114_1993
268	CF pm_012_COMALI
269	CF SHIMMER
270	CF SHIMMER GEMASA
271	CF SHIMMER MONGOLA
272	CF TNO SHIMMER
273	CF Zona B

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Analyzes based on the report : "Développement intégré et durable de la filière bois dans le Bassin du Congo – Rapport stratégique régional – Banque Africaine de Développement / FRMi", 2018.
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FSC :	Forest Stewardship Council
FM :	Forest Management
COC :	Chain of Custody
CW :	Controlled Wood
TLV :	Timber Legality Verification
OLB :	Origine et Légalité des Bois delivered by Bureau Veritas
PAFC :	Pan African Forest Certification
PEFC :	Program for the Endorsement of the Forest Certification

Legend

- Capital
- City/Port of transit
- International border
- River
- Main road

Land cover

- Cultivated land
- Herabceaous area / grassland
- Dense forest
- Open forest
- Shrubland
- Bare soil
- Sparse vegetation
- Aquatic vegetation
- Urban area
- Water

Forest land allocation

- Managed forest concession
- Allocated forest concession
- Unallocated forest concession
- Managed communal forest
- Communal forest
- Community forest

Certification

- FSC-FM/COC
- FSC-FM/CW
- PAFC/PEFC
- TLV
- OLB
- LS - Nepcon