



# EVOLUTION OF AFRICAN TROPICAL WOOD MARKETS

Ethics and pragmatism  
for a sustainable  
development of  
forest resources

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of forest resources**

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# SUMMARY

Sub-Saharan Africa, especially the Congo Basin, is at a major and undeniably critical turning point in its history, with demographic growth, the development of megalopolises, the increase in GDP and the emergence of a middle class. This is bringing about or will bring about changes in terms of the consumption, or more precisely the domestic consumption, of forest products. On the other hand, export markets are displaying different or even divergent requirements: a demand for sophisticated, legal products for Europe, while Asia is seeking raw materials.

In this context of change, this article by Dr E. Groutel seeks to present what is already recognized as a trend, the changes now under way and possible future developments. How to respond to these new flows, these new products, these requirements of quality and legality? How to take advantage of what now exists while responding to customers' requirements?

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# UNCERTAINTIES FROM ROOTS TO CANOPY

Countering uncertainties, becoming aware of strengths and advantages, admitting weaknesses and minimizing the impact of threats: this must be the approach in dealing with the uncertainties clustering around African tropical woods. Legality, visibility, the development of substitute products and “local” European woods, promotion of the consumption of local products, the shrinking of certain markets and the expansion of others and, to be sure, the profitability of the value chain. Here we have a list, albeit not exhaustive, of the many sources of uncertainty. It is not a question of pessimism or optimism, but an attempt to grasp the situation, then to see what changes are under way and lastly to try to see the outlook for the future. Markets are of course in permanent evolution, so that we are in a Schumpeter-type process of creative destruction. The aim of this article is to achieve an overview that may be of use to market operators: states, international organizations and institutions, producers’ associations and unions, the producers themselves, importers, logistics coordinators and even advisors on processing, certification, traceability etc. Lastly, it should be noted that since the wood market is particularly closely linked to the building sector, the present study is offered from this viewpoint.

## 1 WHAT IS: WHAT IS THE CURRENT SITUATION?

Reflecting on uncertainty also means accepting complexities. The time is long gone when it was enough to use one’s professional experience, courage and determination to extract timber from the forest, transport this material and export it. Stakeholders, customers, the pressure of internal and external competition, as well as substitute products, are forcing value chain actors to go beyond mere action or reaction. From now on, we must incorporate all these factors into the actual model of the enterprise. Figure 1 lists some of the uncertainties or expectations that tropical wood markets must address:

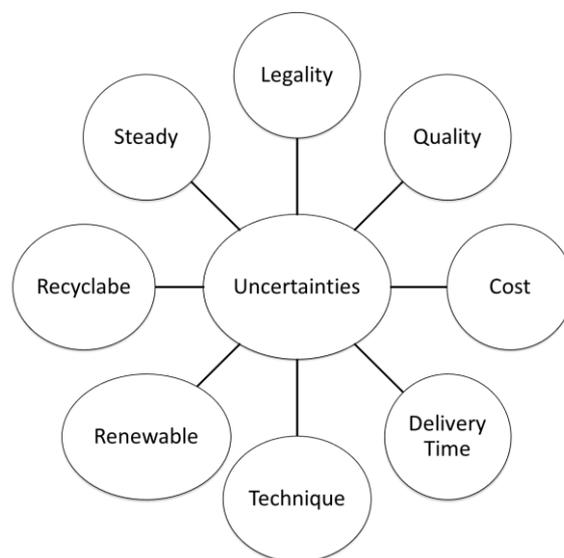


FIGURE 1: UNCERTAINTIES OF THE WOOD MARKET (E. GROUDEL)

This diagram covers a certain number of customer concerns. It corresponds to uncertainty with regard to origin, delivery time and general honouring of the contract. It must in fact be admitted that manufacturers and importers/traders in Europe are increasingly sceptical about the reliability of their supplies of “exotic” woods. What they need is not more products, but solutions, in other words, flawless quality with technical specifications being observed as regards:

- moisture content
- dimensions
- delivery time
- quality control and regulations
- after-sales service.

It is curious to note that although the flows have dried up (see Figure 2), tropical woods can now meet these requirements, thanks not only to considerable advances with regard to legality, traceability and the new European regulations (EU Timber Regulation), but also to the special technical qualities and aesthetic appeal of these products. Thus, the current situation meets both requirements with regard to legality and also the evolving demand for products.

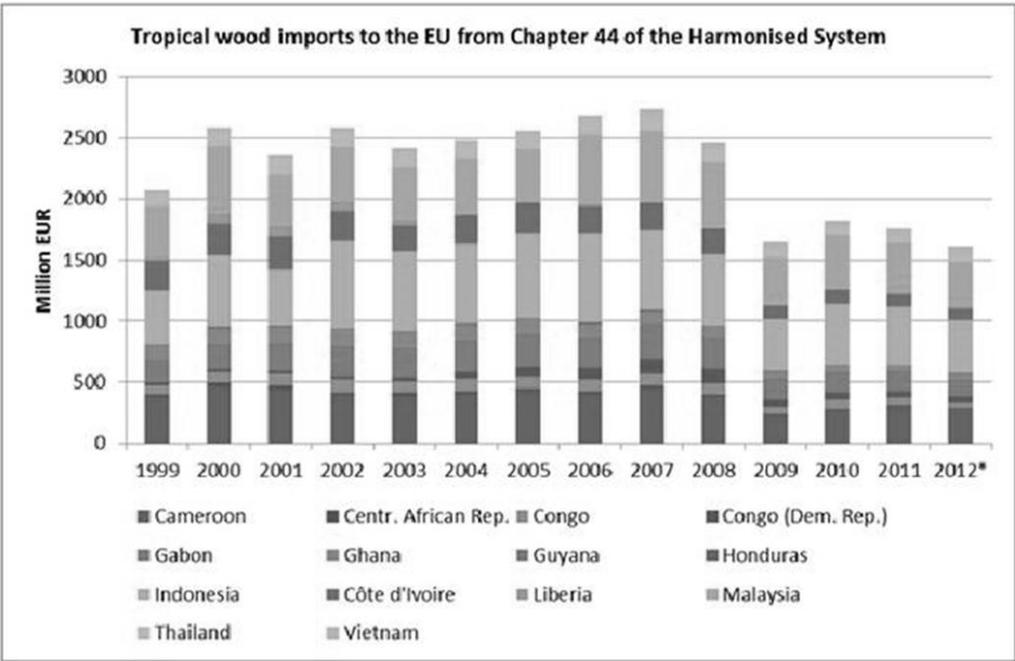


FIGURE 2: TROPICAL WOOD IMPORTS ON THE EUROPEAN MARKET. SOURCE: FAO STAT

### 1.1 LEGALITY: DISPARITIES

Some months after the establishment of FLEGT in Europe (March 2013), a policy intended to ban the sale of illegal woods in Europe by means of the EU Timber Regulation, the result seems to be mixed. Questions are being raised with regard to the institution of controls by supervisory bodies or the validity of one document or another.

Importers, who place products on the market, have the obligation to provide information on the product (species, origin, quantity, legal aspect etc.). They also have to undertake some kind of risk assessment, starting with origin. Risk reduction measures must then be introduced.

Legality can be established by Voluntary Partnership Agreements (VPAs) or under CITES.<sup>1</sup> However, apart from documents linked to the Washington Convention and covering only limited volumes,<sup>2</sup> it should be noted that so far as VPAs are concerned, it must be admitted that there has so far been no substantial progress.

Lastly, such certificates as those issued under the Programme for the Endorsement of Forest Certification (PEFC) or by the Forest Stewardship Council (FSC) are risk-reducing elements but are not absolute proof of due diligence. Despite everything, we do find some importers taking proactive steps, particularly groups responding to pressure that could be brought to bear on them by NGOs and that could thus threaten their distribution through action on their points of sale or even on their stock market value. However, the measures taken by some of these groups very often consist simply of halting any dealings in certain tropical species!

Following a period of doubt and questioning, then of distrust of tropical woods, we seem to have entered a new phase. As we have stressed, some people have suspended purchases of these products, while others are boycotting certain sources or suppliers. It may also be envisaged that a third category of actor decides not to apply the risk-reduction policy, given the combined effect of the current economic crisis and the lack of organization of controls. This group of course puts the whole of the value chain at greater risk.

With regard to legality, significant disparities among markets can be seen. Thus, the United States (the Lacey Act), Australia (the Australian Illegal Logging Prohibition Bill), Japan (Goho-wood) and the European Union (FLEGT) have adopted policies intended to combat illegal forest extraction and the associated trade.

Other countries, such as China and Malaysia, have a very particular approach, in that they require certified wood, which is then to be re-exported. Finally, there are new markets to be “convinced”, for example India, Pakistan, the Middle East and North Africa, South Africa and Turkey.

Lastly, everything still needs to be done for the inter-African market.

Which countries and therefore which products can benefit from this new regulation? First of all, the northern hemisphere, inasmuch as only 2 percent of the almost 400 million hectares of certified forests are tropical forests.

With restrictive public market codes, and campaigns aimed at developing the consumption of local products, it also seems that certifications have moved beyond the stage of simple rights of access to that of being prerequisites. This can moreover be seen either as a barrier to entry or as a means of countering unfair competition, or even a combination of the two.

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<sup>1</sup> Convention on International Trade in Endangered Species of Wild Fauna and Flora.

<sup>2</sup> Of, for example, afrormosia or African teak (*Pericopsis elata*) in Africa or ramin (*Gonystylus* spp.) in Asia.

## 1.2 QUALITY: MORE SOPHISTICATED PRODUCTS

Wood in general has many winning features, thanks to its insulating quality, its renewability and its recyclability, but also its positive carbon balance. However, what in fact constitutes the quality of a wooden product?

Quality covers both considerations of respect for standards and contractual elements: dimension, aspect and moisture content, or honouring of delivery times. Know-how, the incorporation of technological advances in the manufacturing process, logistics or packaging are also part of the picture here.

Although the list could be long, it may be useful to specify the current expectations of customers (see Figure 3) with regard to quality.

- Consistency of dimensions
- Durability
- Resistance to fungi
- Resistance to insects
- Good finishing
- Beauty
- Insulating properties
- Regularity of supply
- Non-toxicity
- Renewability
- Recyclability
- Colour stability over time
- Resistance in structures
- Machinability
- Presentation, packaging

**FIGURE 3: QUALITIES EXPECTED BY CUSTOMERS IN THE WOOD SECTOR (E. GROUDEL)**

At present, European manufacturers (joiners, stair, cabinet and coffin makers, carpenters etc.) are having to concentrate increasingly on their own customers, offering customized and fully finished products, with relatively short delivery times – which are, most importantly, respected. As this needs very substantial investment in terms of the finishing process, the information system and logistics, it leads to their withdrawal from the upstream operations of sawmilling, drying and cutting up. These same manufacturers are looking for increasingly sophisticated products – laminated or finger-jointed items – for both technical and economic reasons. Furthermore, a new generation of executives is arriving in European enterprises who no longer want to be bothered with cutting up wood and who delegate or subcontract even the preparation of wood pieces. They want elements that are ready for assembly and they are thus moving from a fairly bulky supply of sawnwood to third-generation elements, as happened in the automobile industry. It should be noted that this may also to some degree match the desire of producing countries to develop a supply of products with greater added value and meeting environmental requirements, whether in terms of improved yields or savings on transportation. Obviously, the change occurs from log to component (furniture parts, stair treads, pre-cut or pre-drilled products, including finger-jointed timber or glulam beams, as can be seen in Figure 4.

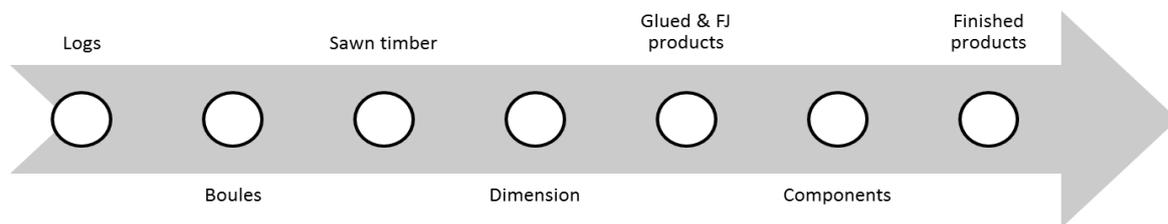


FIGURE 4: EVOLUTION IN SUPPLIES TO MANUFACTURERS (E. GROUDEL)

### 1.3 AFTER THE GLOBAL, BACK TO THE LOCAL

Another particularly striking fact is the strong tendency of European operators to prefer species from the northern hemisphere – such temperate woods as pine, oak and beech, or such plantation species as eucalyptus or even poplar. In a way, it is a relocalization movement toward the local and sustainable. Without going into a purely sociological discussion, this clear trend is the same as that of *slow food*, of quality versus quantity, of the human dimension.

This movement should be taken very seriously and corresponds to a general movement found in other spheres of activity. In the case of agriculture, in the United States people speak of the “local-and-sustainable food movement”. In this connection, the largest distribution group, Walmart, has judged the situation well and taken the trend on board. It is the neighbourhood principle, which perhaps corresponds to the current crisis or post-crisis period. It should also be borne in mind that major certification groups are at this very moment considering the possibility of organizing the traceability of local products.

It should be noted that the use of these local products requires new gluing techniques or processes to improve durability. The closeness between producers and users (for example, Poland and Germany in the case of glulam using Scots pine) is also an advantage. We are right there in the framework of a “just in time” situation sought in this period that is so demanding of reactivity. As far as price is concerned, the competitiveness of products from the north as compared with those from the south is unequal, inasmuch as in the emblematic case of glulam, the cheapest product is Scots pine, while the most expensive is oak. It can be seen that for this type of product, intended for window frames, tropical woods are in the middle of the price range (see Figure 5). “Local” woods thus occupy the market for mass-produced items at one end of the spectrum and that for niche products at the other end.

SPECIES	Price of glulam KKK in euros per m <sup>3</sup>
Oak	1 300
Sapelli	1 050
Larch	900
Mixed red wood	900
Dark red meranti	850
Tiama	800
Scots pine	600

**FIGURE 5: PRICES OF SCANTLINGS 63/72 X 86 X 900 CIP EUROPEAN PORTS**  
(COLLECTED BY E. GROUDEL IN JULY 2013)

## SITUATION

To round out this overview, we also need to talk about the inter-African market. Data on the subject are scanty and are most often unofficial. Thus, despite the creation of free trade zones and a customs union (the Economic and Monetary Community of Central Africa – EMCCA), recent reports are tending to throw up a number of problems:

- inadequate infrastructure and interconnections;
- high transportation costs;
- lack of security at some borders (informal taxes, highway robbers etc.);
- hold-ups in the issuing of certain documents (certificates of origin).

All these problems lead to difficulties in the free circulation of goods and people.

Traditional markets show a high demand for legal – or at least certified – wood products. Even if the individual customer's demand in some countries is still weak, public markets are really insisting on it. Nowadays, the products sought after are becoming increasingly sophisticated and tending to be elements or components in an organized supply chain.

With regard to other markets such as China, change is slower, from logs to sawn timber and from uncertified to certified.

Lastly, the new markets do not have these demands and basically look for raw materials to process, as we shall see later.

## 2 WHAT IS BECOMING: WHAT DEVELOPMENTS ARE WE SEEING?

In the first part, we saw a strong orientation of traditional markets for tropical woods towards this twofold requirement of legality and quality. There are also many changes taking place in flows. On the other hand, we find that as local legislation evolves – bans on the export of logs from Brazil, Côte d’Ivoire and Gabon, bans on the export of logs of certain species from Cameroon, or bans on unsurfaced sawnwood (Indonesia) – industrial advances are put in place or are in the process of being so in some cases.

### 2.1 CHANGES IN FLOWS

The traditional South-North trade in tropical woods has changed. Previously, no African producer had heard of oak, ash, or even merbau or tauari (Brazilian oak). History, the traditional sea routes (break bulk) and consumption habits all made the market work as a kind of silo organization, with the focus for these types of product being from South to North, as illustrated in Figure 6.



FIGURE 6: TRADITIONAL SOUTH-NORTH TRAFFIC

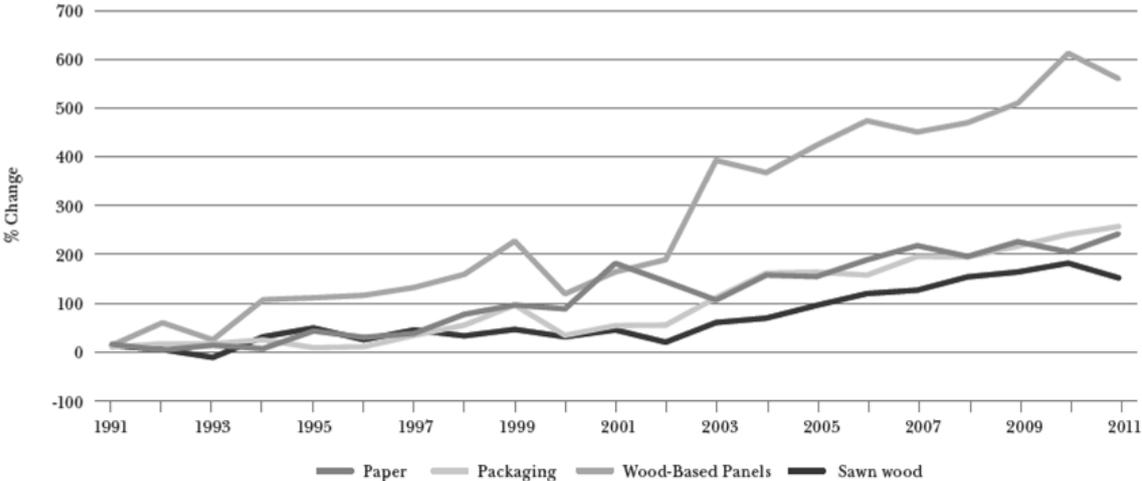
Then, more recently, the market has opened up internationally to a fully globalized world. Containerization, the ease of communication and comparison (using the Internet) and the opening of certain countries to the market economy have completely changed the situation. A South-South trade has become established, with the Chinese, Indian, Malaysian and Vietnamese markets gaining in

importance. The Near East, South Africa and Turkey, which were already present in these markets, are helping to boost the volume of this trade. On the other hand, inter-African trade or domestic consumption are also in the process of creating a new situation. Lastly, new customers are becoming interested in these products, some of them perhaps anticipating an end to the export of logs from Burma or being faced with other problems over supplies from their usual sources. Here we are thinking of Bangladesh, Pakistan, Indonesia and the Philippines. Whatever the case, we illustrate this increasing complexity of flows in Figure 7.



**FIGURE 7: GLOBALIZED AND COMPLEX**

We have shifted from a vertical movement of trade to transversal movements, two-way movements or even vertically reversed ones, through sales from countries of the North to those of the South (see Figure 8).



**FIGURE 8: AFRICAN IMPORTS OF FOREST PRODUCTS**  
 SOURCE: GLOBAL ENVIRONMENT FACILITY (GEF) THROUGH FAO-FORESTAT

## 2.2 CHANGES IN PRODUCTS

To return to products and as mentioned above, we can see a development of components intended for window, door and stair manufacturers. There is also a marked trend in these reconstituted or glued elements for there to be a difference between the external features of facing materials, made of first-choice traditional species, and another part, made of second-choice species or species described as secondary. While optimizing less prized products, these sandwiches improve the insulating qualities of the finished product. Species with different densities can also be glued together to improve the whole piece, for example combining the durability properties of one and the insulating properties of the other. This is to some degree comparable with what is done with plywood panels using a rapid-growth species for the interior and a “noble” species on the outside. However, it should be noted that this does raise questions about the miscibility<sup>3</sup> of certified products.

Gluing smallwood together is also a good way of enhancing the value of small-sized products. Examples are the rubberwood panels that have captured the stair manufacturing market and the *Eucalyptus grandis* panels that have done the same for joinery. Just as flows have become more complex, we are witnessing the establishment of major competition on all sides. Woods from the North are competing with Indonesian tropical woods (Scots pine versus merbau). Pre-painted spruce panelling is competing in the same markets as thermally modified American tulip wood, while American ash and bilinga compete in the same decking market.

At present, the flagship product for tropical woods is still decking with its traditional North American and European markets. In fact, some tropical species are naturally very stable and durable for uses with a high risk of biological degradation (from insects and fungi). Ipê, cumaru, massaranduba, muiracatiara and yellow balau take the lion’s share, while the share of African species such as bilinga, tali, padouk and doussié is shrinking. It should be noted that the share of woods modified by various processes, like so-called composites, is expanding.

The lack of organization (federation and cohesion) of producers of decking using African woods in French standardization commissions has recently led to penalizing requirements. The public market for these products is now inaccessible and the private market lacks incentives.

Cladding is also experiencing a growing demand on the European market, and this is because of the desire to increase the proportion of wood used in construction,<sup>4</sup> but also because of the introduction of new regulations such as tax incentives and some exemptions from the requirement of building permits for exterior insulation. There is thus what looks to be an interesting potential for cladding.

However, unlike decking, the risks of biological degradation are lower. Wood with a lower durability can thus have the same lifespan as decking, which is why European or American softwoods are adequate.

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<sup>3</sup> Miscibility usually designates the capacity of various liquids to mix and form a homogeneous solution. Here of course it refers to forest certifications.

<sup>4</sup> France, however, pressured by the concrete lobby, seems to be back-peddalling on this.

In addition, these products, with the exception of western red cedar for example, are sold pre-painted or pre-varnished. Some people agree that there is a relative potential for African species (okoumé) in Europe. However, inasmuch as the competition is basically over price, it is hard to place them there, except in niche markets. Others believe there is a market to be captured for cladding with a low reaction to fire (in order to limit the spread of fires on the outside). Indeed, some species, such as larch, basralocus or pau roxo, have obtained a test report allowing them to be used in their natural state (without a fire retardant) in constructions where the regulations require this measure. Studies still have to be carried out.

SPECIES	Price of 22 mm cladding in euros per m <sup>2</sup> DDP
Western red cedar	33 euros
Prepaint spruce	23 euros
Okoumé	18 euros
Larch	16 euros
Douglas fir (10% sapwood)	11 euros
Spruce	9.50 euros

**FIGURE 9: PRICES OF EXTERIOR CLADDING IN EUROS PER M<sup>2</sup>**

Here we must return to the development of new processes for treating wood, particularly the high temperature treatments that allow certain non-durable species to be envisaged for external uses.

This is an undeniable fact and it should therefore be taken very seriously into consideration. These processes have raised the possibility of a species such as American ash advancing in the decking market, and this will also be the case for the tulip tree or soft maple for cladding. Many African species with less durability could find their niche here, even though prudence is needed, knowing that during the past 20 years there have been many incidents with this type of product (splitting during screwing and attacks by nest-building insects). It is also not traditional; that is, it is not covered by any standard. Mechanical properties are severely reduced by degradation of the cellulose. Reaction to fire is also a moot point, inasmuch as combustion has already started. Lastly, an environmental assessment still needs to be carried out.

Even though it is a rather complex procedure for African woods, using several inert gases (to make sure the wood does not burn), this is no reason to reject it. Whatever the case, it also shows that the natural durability and stability qualities of some “natural” woods are still worth offering.

**FUTURE DEVELOPMENTS**

Developing products with a high added value requires investment in storage facilities and obviously in planing and gluing equipment for processing. The cash flow is also affected, since the processing entails a lengthening of the time lag before financial returns are seen. Other budget lines need to be freed up to make space for these innovations or new financial resources need to be mobilized.

Investment is also needed in order to ensure that production is well organized, that processes (especially gluing) are supervised, that the service the customer expects is monitored and guaranteed, that research into new products and new markets is carried out, that production costs are monitored, controlled and reduced (in order to improve returns) and more generally that the profitability of each product is monitored.

Other issues are the future outlook, techniques, legal matters and communication.

The flows of African tropical forest products are undergoing changes. We have moved from the traditional South-North flow to a South-South flow. During the same period, the demand for products intended for mature markets has become more sophisticated (planed, dried and glued items), while new markets have continued to look for raw materials and local markets have been content with the lower range of processed products.

### **3 WHAT NEEDS TO BE DONE: WHAT POLICIES SHOULD BE ADOPTED?**

In the face of the challenges of globalization, the creation of new sea routes and the demands of markets for a varying range of products, we need to reflect on a common approach that would allow the sustainable optimization of forest resources to be launched or maintained. Five million hectares of certified forests, a million workers directly employed by the value chain, a potential that is still preserved in Central Africa, virtuous examples of good forest management: is all this used to the best effect? This last part has the modest ambition of proposing some possible avenues to be explored or improved.

#### **3.1 MARKETING**

How long is it since there has been any real joint marketing action concerning African tropical woods?

When we visit a timber trade fair, how many stands are devoted to tropical woods? Three or four at the Cologne Interzum, a dozen at the Nantes Carrefour du Bois, and so on. The various exhibitors show their European or American products, mostly softwoods, and even those involved in the tropical wood trade are a little hesitant over proposing sipo, iroko or ayous, or niangon in the case of others. If this seems strange, it should be noted that timber trade magazines tend not to talk about tropical woods unless there is some dispute concerning a consignment with an uncertain legal origin.

To answer the question about promotion, we very probably have to go back to the 1960s or 1970s.

At that time, the question (particularly for Côte d'Ivoire) was still: "I have different species in my forests. What should I do with them?" It was a question of promotion rather than marketing, teaching people the names of species and their potential uses. It was a remarkable effort, but one that has not been repeated.

We thought it would be interesting to give a clear picture (Figure 10) of the main differences between the two approaches, the first traditional and the other that takes marketing into account.

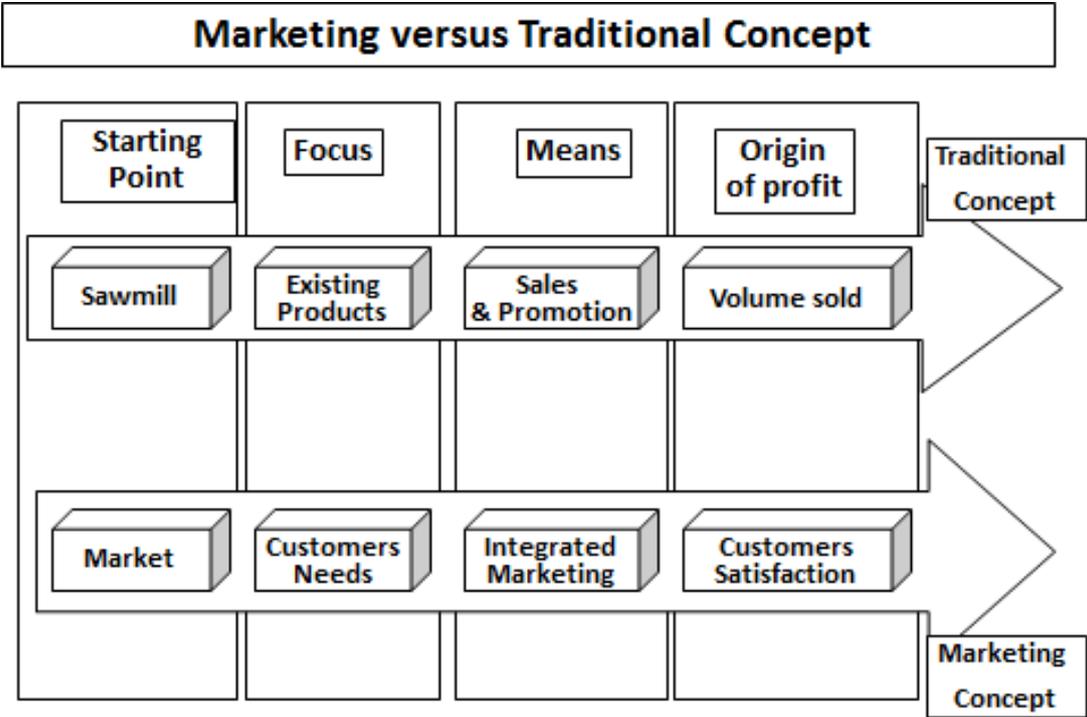


FIGURE 10: TRADITIONAL APPROACH VERSUS MARKETNG APPROACH (ADAPTED FROM GROUDEL & DESCLOS, UNIVERSITY OF MASSACHUSETTS, 2013)

What is meant here by “marketing”? Identifying and analysing customers’ needs in order to find and adopt solutions that meet their expectations and create profit. Listening to the customer is vital. This applies to institutions, associations, unions and private enterprises. The aim is remunerative customer satisfaction and it entails prior consideration of certain questions (see Figure 11):

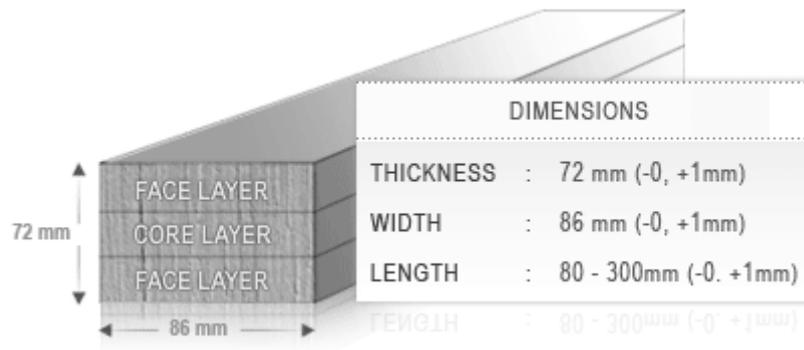
- Who are the customers?
  - “Historic” customers and others
- Who could they be?
  - New customers to be served
- What do the customers want?
  - Cost, delivery time, quality
  - Services
- How are we organized?
  - A new value chain
  - Incorporation into the manufacturing process
  - New products to be offered
- And the teams?
  - New forms of collaboration
  - Training
- Lastly, who are my competitors?
- Verification of satisfaction

**FIGURE 11: MARKETING QUESTIONS**

### **3.2 “COOPETITION”**

Coopetition provides a value chain with its structure: “We are competitors, customers, suppliers, subcontractors, but even so we are complementary and aware of this. Our joint work allows us to optimize our product with a structured marketing approach and a reliable supply.” Here we have a short definition of coopetition.

It would be interesting, in the context of benchmarking, to study what was done for a specific product by the Malaysian Timber Council (MTC). This example of **competition-cooperation** – i.e. **coopetition** – could be used as a model for other products in Africa. We can also consider the means used by AHEC or PROCHILE for collective optimization. To return to MTC: on its Internet site, it offers a product – finger-jointed glulam – known as LAMSELECT MALAYSIA® (see Figure 12).



**FIGURE 12: SPECIFICATIONS OF LAMSELECT® GLULAM**

As part of a coopetition approach (see Figure 13), the Malaysian timber producers’ promotion association groups its members together in order to propose a consistent supply. This model can be used both for the task of listening to customers and also for the protection of jointly developed products.

As the letter from MTC tells us, “LAMSELECT® is *the* brand name to choose, inasmuch as it proposes not only a product, but a whole set of solutions. Thus, a first-choice wood is proposed, accompanied by a top-quality after-sales service.” In terms of services, it is required that the colour of the wood be uniform, its density greater than 450 kg/m<sup>3</sup>, the gluing controlled by the Institut für Fenstertechnik (IFT), a ten-year guarantee for the lamination, and a wood coming from an undisputed source and certified by the PEFC. Such well-known species as dark red meranti and gerutu are offered, but also less well-known species<sup>5</sup> such as bitangor, yellow meranti, merawan and kasai.

COOPETITION
• Establishment of tests and standards
• Compliance with these standards
• Communication and publicity on these standards for the general public
• Consumer protection
• Protection of members of the profession from one another
• Establishment of training centres
• Organization of promotion
• Standardization of contracts
• Creation and dissemination of statistics

**FIGURE 13: COOPETITION (E. GROUDEL)**

<sup>5</sup> Unconventionally used timber.

It would be interesting to follow the avenue opened up by MTC for other zones or other products. Whether we are dealing with decking, cladding, plywood or construction timber, there are undoubtedly possibilities to be explored regarding this way of pooling resources. Interest groups, resource federations and cooperatives are tools that would make it easier to meet market expectations regarding legality and quality. It is a good way of eliminating uncertainties by offering value and solutions and being innovative – and this is what MTC proposes through its brand mark. It should also be added that this task is supported by the involvement of the German standardization services.

Lastly, this work on quality intended for export also has positive effects on a demanding local market. The training of workers, secure investments and modern processing equipment lead to an all-round improvement, which benefits the formal sector.

### **3.3 PRODUCTS AND SERVICES TO BE PROMOTED**

#### **SECONDARY SPECIES**

For reasons of cost effectiveness and good forest management, it is important to bring added value to what are known as secondary species.

Obviously, certain concessions far from ports basically extract “noble” species – sapelli, sipo, iroko, wenge and even ayous.

Then come such “intermediate” species as kosipo, limba and tiama, which are occasionally extracted, and lastly mukulungu, lotofa, limballi, naga and andoung, which are much less frequently extracted. Each country and each forest concession also has its own organizational and logistical constraints. We certainly would not want to oversimplify things by saying that there is only one good practice, for this would simply be untrue. However, it can be seen that when the product was exported in logs to be cut into boules, each piece extracted had its own unique aspect, which has more or less continued with planks, with the exception of contracts for mixed red woods. With the development of finger-jointed glulams, it can now be envisaged that components will be produced with face layers of first-choice or “recognized” species and core layers of second-choice or secondary species. Products become interchangeable.

We can also consider the question of technology transfer. From a technical viewpoint, the use of more varied (or indeed mixed) species requires greater skill: gluing, drying, finger-jointing, thermic modifications etc. This cannot be carried out successfully except in an environment of maximum security for investments, inasmuch as such processes are more expensive.

Here, too, the promotion of less well-known species entails some real marketing action, carried out jointly in an environment that is secure in all spheres (regularity of supplies, technical validation etc.).

## **CONTROL OF PROCESSES AT THE ORIGIN**

Here and elsewhere: again in pursuit of security, quality control of components can be carried out by CATAS, IFT Rosenheim, KOMO, FCBA or other European – or indeed Japanese or American – bodies. However, it is perhaps hard to be well defended by offices that are a long way away from production chains and their specific features. Quality controls are not just “Open Sesame”s that will open or close doors. They make it possible to:

- carry out ongoing improvement, in the context of listening to customers;
- analyse and eliminate malfunctions;
- raise producers’ awareness;
- if need be, carry out research on:
  - o new processes;
  - o new products;
- carry out training and extension;
- have technical expertise available;
- work on costs regarding product miscibility and yield;
- defend the product;
- improve profitability;
- ensure greater precision.

All its values are those especially sought in order to develop export sales (dissolving uncertainties) and boost the formal value chain in local markets (contributing quality).

There is thus room for further consideration of the subject in the framework of subregional collaboration.

## **3.4 OUTLOOK FOR THE FUTURE**

Is forecasting an art or a science? Undoubtedly a little of both. In any case, it is always a risky exercise. As may be expected, there are various possibilities for us, but we shall consider three scenarios here. They can all come in for broad criticism, but they do provide food for thought and indicate avenues that should not be followed, if nothing else.

### **HYPOTHESIS A**

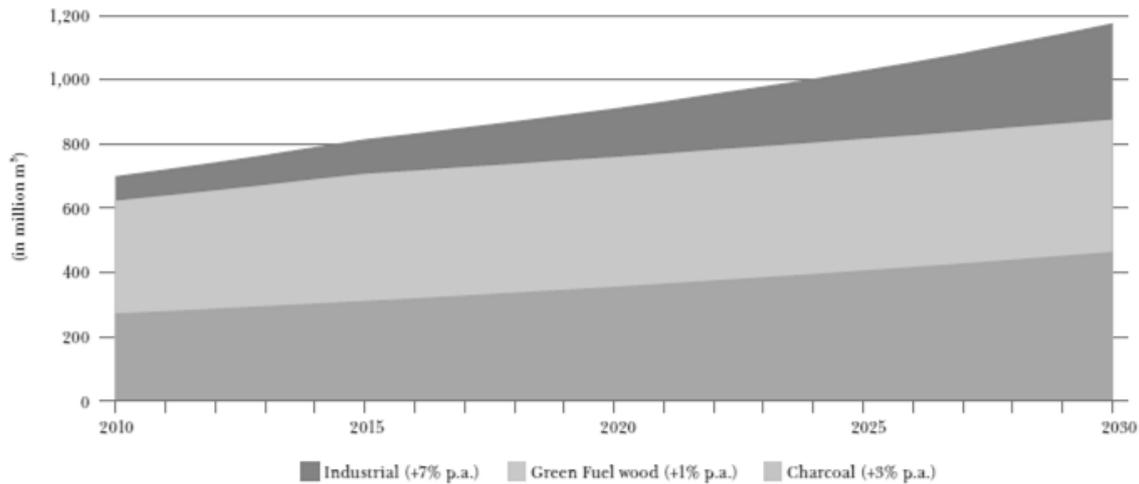
The domestic or inter-African market is driven by a considerable growth, according to criteria already known:<sup>6</sup>

- a doubling of the population of Africa between now and 2040, i.e. from one to two billion;
- a doubling of the workforce;
- 50 percent more rural inhabitants;
- a tripling of urban inhabitants;

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<sup>6</sup>. African Forestry and Wildlife Commission.

- steady growth in incomes and the emergence of a middle class;
- a consumption of 900 million cubic metres of fuelwood and 300 million cubic metres of sawnwood (see Figure 14).

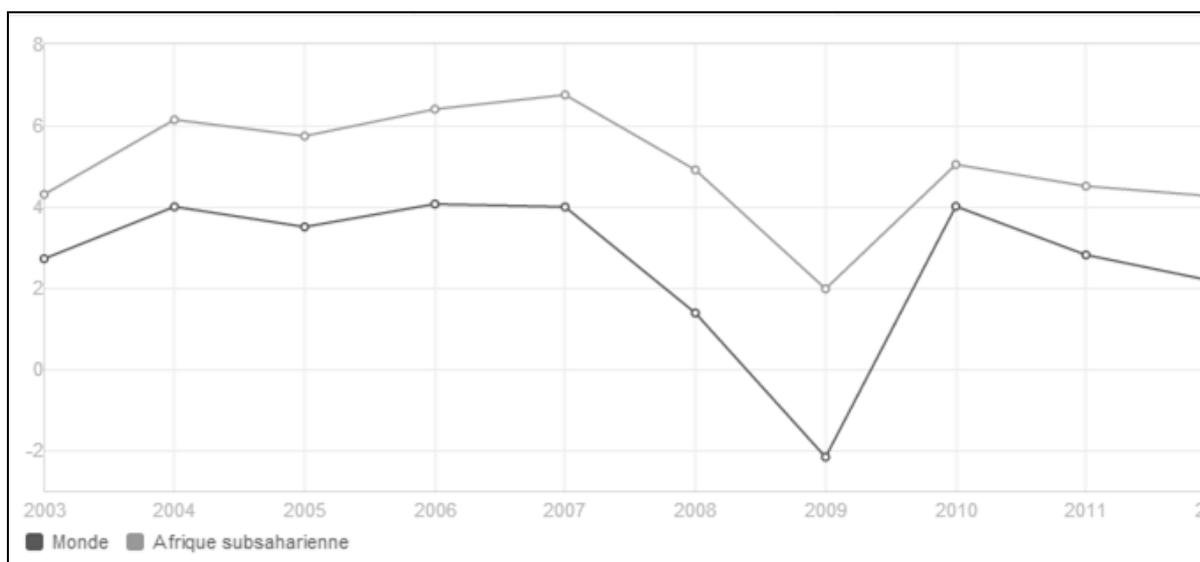


**FIGURE 14: AFRICAN DEMAND FOR WOOD.** SOURCE: GEF ANALYSIS

The growth in population leads to a huge need for fuelwood, while urbanization leads to an explosion in the need for sawnwood. The local market also concerns sawnwood intended for the building of houses: frames, panels, doors, decking etc. The growth in the middle class in Africa (see Figure 15) leads to an increase in the demand for furniture. Ongoing urbanization develops needs for formwork and plywood panels and also a growing demand for palettes. The same applies to pitprops.

There is ongoing deforestation in steppe or savannah zones. The forests that were still left around urban megacentres are eradicated. Primary forest is also used to supply the megalopolises. Inasmuch as bans on the export of sawnwood mean that the primary processing industry produces only for a fairly undemanding local market, the industry is wasteful of material. Social and environmental criteria are no longer taken into account, and the main thing is to produce without thinking about tomorrow.

The informal sector is the predominant model in harvesting, sawing and processing. The formal sector is made up of units with obsolete equipment, because it has not needed to update its tools to meet a more sophisticated demand. In addition, there are problems of logistics and access to energy. Lastly, there is no transfer of technology. Certifications or VPAs no longer have any purpose, since there are no more exports. The models of good forest management practices demanded by mature markets are not put in place. The system thus operates as an autarchy, without investment and without staff training.



**FIGURE 15: GROWTH IN WORLD GDP AND SUB-SAHARAN AFRICA GDP.** SOURCE: WORLD BANK

These low overall requirements lead to an acceleration in deforestation.

If this model were “applied” on a continent-wide level, we would probably find ourselves facing wide-scale deforestation. Moreover, the competitiveness of local industries would be disrupted by imports of softwood sawnwood from Europe or plywood from South America, unless particularly dissuasive customs barriers were put in place.

## **HYPOTHESIS B**

The growth and development figures described in the previous hypothesis are the same. Although in this case there is an inter-African and local predominance, an export market does still subsist. Plantations have been established to take over as the source of supplies for certain uses. Degraded forest zones or grassy steppes have been planted. Combined with agriculture, these plantations of okoume, limba, mahogany, teak and eucalyptus keep the local population from moving away, create jobs and allow the primary forest to be conserved. Some difficult decisions are of course made concerning the “conversion” of certain forests into purely agricultural plantations (palms).

However, some producers/sawmills/processors put up a resistance. These people are located in less densely populated zones, where logistical conditions remain difficult. Logs and rough sawnwood have been stopped, and only products with added value, i.e. planed, glued or even finished products, are exported. The emerging log markets have vanished and have turned to roundwood coming particularly from West Europe.

Africa becomes an importer of wood. Some of the large towns on the continent’s western coast import rafters, joists and other building materials. Some exporters, who are in contact with international markets, have themselves become importers.

## HYPOTHESIS C

Agroforestry has been incorporated and natural forests are protected in various ways. First of all, education of the local inhabitants means that they now understand the main issues at stake. Access to energy is obtained at a lower cost. Informal extraction or approaches that do not respect the rules have been systematically eliminated: for some countries, this is a major challenge in terms of communication. Responsible forest harvesting companies continue their extraction work, based on concession-reserves. The products resulting from their industries are considered assets promoting the employment of local people and the protection of plant and animal wildlife. A true marketing of these African forest products is carried on jointly throughout the subregion.

With this situation, additional revenue has then arrived: ecotourism, thanks to facilitated access to the various countries concerned (visas, other formalities, cost of tickets etc.).

Constructive local solutions have been developed, supervised by locally established bodies. These offer sustainable buildings that suit the middle class, based on what is done in the United States or Central America.

Forest products from Africa are seen as ethical products. The pragmatism of well-controlled, rational harvesting is combined with a social and environmental ethics, so that we can speak of African *pragmethics*<sup>7</sup> regarding forest management.

## 4 CONCLUSION

This article has enabled us to see how much the market has really evolved: there have been not only changes in flows and products, but also divergences in expectations (mature markets, new markets and inter-African markets).

We have not addressed the market in terms of crisis or recovery because, apart from these phenomena, it is clear that the world demand for wood, like all the other major raw materials, is rising. Wood is recognized as an eco-material and is sought by end customers in all latitudes.

In addition, there is a demand for new products, thanks to new processing treatments with an availability of legal or certified raw material. All this represents an opportunity to win market shares. However, the main opportunity is constituted by the awareness that wood is undoubtedly *the* building material of the twenty-first century, just as other materials have been of past centuries.

We spoke of uncertainties by way of introduction. At this point, we must set forth some certainties and map out a way forward:

- Local inter-African markets should not be completely cut off from international markets, because they are mutually enriching. Training, technology transfer and value creation are of

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<sup>7</sup> The neologism *pragmethics* is made up of a combination of the words *pragmatism* and *ethics*.

benefit to local enterprises through the demands of international competition. Without this, there would be a tendency to level downwards, rather than upwards. African customers themselves are rejecting the local products offered to them and demanding imported products.

- The forest value chain is a great bringer of wealth and a creator of jobs in isolated zones. It is vital that it should work together:
  - setting a benchmark: AHEC, MTC or others;
  - adopting a true value chain marketing approach (also for domestic markets);
  - promoting secondary species through innovative technologies;
  - defending research centres dedicated to tropical wood;
  - issuing joint communications.
  
- It is vital to do everything possible to combat illegal trade, which is
  - a theft for the country concerned
  - unfair competition
  - an environmental crime
  - a major source of uncertainty.
  
- Participation in the regulations imposed in Europe is obligatory:
  - by being present in standardization bodies (durability, structural qualities, life cycle etc.);
  - by envisaging control laboratories based in Africa that will allow the transfer of knowledge and a defence of local products.

Lastly, this list is not restrictive, but sets the tone for combating uncertainties and bringing final customers the certainty that the forest wood value chain in Central Africa is focusing effectively on a voluntarist policy regarding its forest resources.

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