An overview of intra-African trade in forest products: opportunities and challenges

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SUMMARY

The emerging scenario in intra-African trade in forest products is one characterised by very small volumes of recorded trade on one hand, and on the other one of unrecorded, and of potentially big sales, taking place across borders. There has been considerable attention and resources put on condemning and containing the latter, which is 'illegal'; and less so on understanding its causes, its niche in socio-economic development, and ways to tame it as formal trade. Africa needs to cultivate a conducive environment that includes favourable policies and infrastructure for legalising such trade, and in ways that its actors can be better organised and regulated. This has great potential to benefit more people and national incomes through taxes which are currently avoided, as well as containing illegal logging and wood processing that continues to decimate the forest estate. Superimposed on this is the apparent failure to strengthen even the current small legal intra-African trade in forest products, and this is mainly due to poor infrastructure that hinders broader continental economic integration. There is also an apparent and very serious neglect of the potential of firewood and charcoal production and trade to be legitimate, dynamic and fully legalised, mainstreamed, modernised activities – anchored on sustainable raw material provision, given that these energy products are essential for Africa's rapidly growing population, both in rural and urban areas. Charcoal is not a fuel of history but of the African future. There is therefore need to develop legally organized sustainable production and marketing systems.

Keywords: forest products, charcoal, intra-African trade, regional integration

Une vue d'ensemble du commerce intra-africain en produits forestiers: défis et opportunités

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Le scénario émergeant du commerce intra-africain en produits forestiers est caractérisé d'un côté par de très faibles volumes de commerce répertorié et, d'un autre côté, par de grandes ventes potentielles s'effectuant d'une frontière à l'autre. Une attention et des ressources considérables ont été accordées pour tout à la fois condamner et contenir ces dernières, qui sont 'illégales', mais beaucoup moins pour essayer de comprendre leur cause, leur niche dans le développement socio-économique, et les moyens de l'intégrer au sein du commerce formel. L'Afrique doit cultiver un environnement encourageant, incluant des infrastructures et des politiques favorables à légaliser de tels commerces, et capables d'aider ses acteurs à être mieux organisés et régularisés. Ce secteur possède un fort potentiel bénéfique pour davantage de personnes et pour les revenus nationaux, à l'aide d'impôts actuellement évités, ainsi que pour le contrôle de la coupe de bois et sa manufacture illégales, qui continuent à décimer le bien forestier. Il faut ajouter à ceci l'échec apparent de fortifier même les petits commerces intra-africains actuels légaux en produits forestiers, dû principalement à une infrastructure pauvre empêchant une intégration économique continentale plus large. Il existe également une négligence visible et très sérieuse du potentiel qu'ont la production et le commerce de bois de chauffe et de charbon d'être rendues activités modernes courantes, légitimes, dynamiques et pleinement légales, ancrées sur une provision de matériau brut durable, du fait que ces produits énergétiques sont essentiels pour la population africaine en rapide croissance dans les zones urbaines ainsi que rurales. Le charbon n'est pas un carburant du passé, mais bien présent dans le futur de l' Afrique. Il existe par conséquent un besoin de développer des systèmes de production et de marketing durables et organisés légalement.

Una visión general del comercio de productos forestales entre países africanos: oportunidades y retos

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El panorama emergente del comercio de productos forestales entre países africanos se caracteriza por un lado por volúmenes de comercio registrado muy pequeños, y por otro por posibles grandes ventas no registradas que tienen lugar a través de las fronteras. A estas últimas se les ha prestado mucha atención y recursos en cuanto a censurar y frenar las que son "ilegales", pero mucha menos a la comprensión de sus causas, a su papel de nicho en el desarrollo socioeconómico, y a las maneras de domesticarlas en forma de comercio formal. África necesita cultivar un ambiente propicio que incluya políticas favorables y la infraestructura para la legalización de ese comercio, mediante maneras que permitan

a sus actores estar mejor organizados y regulados. Esto tiene un gran potencial para beneficiar a un mayor número personas y a los ingresos nacionales por medio de evitar la elusión fiscal actual, así como frenar la tala y la transformación ilegal de la madera, que continúan diezmando la superficie forestal. En paralelo a esto se observa el fracaso evidente en cuanto a fortalecer el pequeño comercio legal de productos forestales entre países africanos, lo que se debe principalmente a la mala infraestructura que dificulta una integración económica continental más amplia. También se aprecia el abandono evidente y muy grave del potencial que tiene la producción y el comercio de leña y carbón de convertirse en actividades modernas, integradas, totalmente legalizadas, dinámicas y legítimas –sustentadas por una producción de materias primas sostenibles, dado que estos productos energéticos son esenciales para las población africana en rápido crecimiento, tanto en zonas rurales como urbanas. El carbón no es un combustible del pasado, sino del futuro de África. Por tanto, es necesario desarrollar sistemas de producción y comercialización sostenibles legalmente organizados.

INTRODUCTION

The socio-economic development path of Africa is changing fairly rapidly with sub-regional and regional integration of many socio-economic and environmental activities. Trans-boundary activities are increasingly becoming more conspicuous among countries and sub-regional economic blocks. The strengthening of regional economic communities (RECs) is gaining momentum as well. Considerable emphasis continues to be placed on integration of trade between countries within individual RECs and even between these economic blocks. This is also in line with the South-South collaboration spirit. A number of products and services are increasingly being traded this way between many African countries.

With respect to the forestry sector, regional and even sub-regional integration is weak, not only in terms of trade in forest products and services, but also in terms of other trans-boundary forestry related activities. So while at continental and sub-regional levels, the forest resource endowment of Africa is most probably enough to produce the current forest products needs of the continent, scarcities abound in many countries, and even within countries, for a number of reasons; one of them being weak trade infrastructure between countries and even between different parts of individual countries. Also, the inefficient harvesting of forest resources and their processing constrain Africa from meeting all its industrial forest products from local sources.

This situation notwithstanding, African governments are increasingly becoming aware of the role forest resources play in socio-economic development and environmental stability of their countries and the sub-regions they belong to. The forests are valued for their habitats for wildlife, beekeeping, unique natural ecosystems and genetic resources. They are catchment to many rivers that are cornerstones of economic development on the continent. Many of these forest attributes are shared between countries. Given this awareness the RECs have come up with specific policies and strategies to guide forest development in ways that could accelerate sub-regional integration in forest related activities.

For example, the Southern African Development Community (SADC) has a 'Protocol on Forestry' that outlines how member states shall cooperate to promote forestry development in that region. With regard to trade the Protocol seeks to "promote trade in forest products throughout the region in order to alleviate poverty and generate economic opportunities for the peoples of the region". The Economic Community of West African States (ECOWAS) has a 'Convergence Plan for the Sustainable Management and Conservation of Forest Ecosystems in West Africa' that serves as a reference framework on which member states agree to 'federate' their national and sub-regional actions in order to achieve sustainable management of their forests and wildlife resources and enhance forests ecosystems in the sub-region. The Convergence Plan is therefore a federating framework to enable member states to undertake actions at national, regional and trans-boundary levels. With respect to trade one of the activities of the Convergence Plan is "Definition and application of a regulation on the trade in trans-boundary forest products". The Common Market for Eastern and Southern Africa (COMESA) has a forestry strategy whose overall objective is to elevate the forestry sector within the COMESA region in terms of contribution to local, national and regional economy through improved integration and trade. The African Forest Law Enforcement and Governance (AFLEG) Ministerial Declaration in Yaounde in 2003 seeks to "Develop regional cooperation agreements to address cross-border trade issues (including bushmeat)." There are many more initiatives on the continent that seek to develop and strengthen trade in forest products and services between African countries and also between their RECs.

This paper analyses trade in selected forest products in Africa with the intention of shedding light on how such trade is evolving among African countries, and between Africa and the rest of the world.

THE STUDY APPROACH

In 2012 and 2013the African Forest Forum (AFF) commissioned a number of studies in Central, Eastern, Southern and West Africa[1] that examined, among other things, production

[1] **Africa's Sub-Regions:** (a) **North Africa**: Algeria, Egypt, Libya, Mauritania, Morocco, and Tunisia // **West Africa**: Benin, Burkina Faso, Cape Verde, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo // **Central Africa**: Cameroon, Central African Republic, Chad, Congo Republic, Congo (Democratic Republic), Equatorial Guinea, Gabon, and Sao Tome & Principe // **Eastern Africa**: Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Seychelles, Somalia, Sudan (before breakup), Tanzania, and Uganda // **Southern Africa**: Angola, Botswana, Lesotho, Madagascar, Malawi, Mauritius, Mayotte, Mozambique, Namibia, Reunion, South Africa, Swaziland, Zambia, and Zimbabwe.

of and trade in forest products (Mvondo 2013, Kakuru 2012, Makano 2013, Popoola 2013). Some of the information from these studies has been used in this paper. Also, FAO databases were accessed for information on production, consumption, imports and exports for seven leading categories of wood products (Chipeta 2014). The information from these two sets of sources was analysed; and in the case of systematic FAO data, years 1990, 2000 and 2010 were targeted to give a flavour of the trends. Data for fuelwood, charcoal, industrial roundwood, saw and veneer logs, sawnwood, panel products, and paper and paperboard were collected for the years 1990, 2000 and 2010.[2] For non-timber forest products, literature searches and limited surveys and interviews were the main sources of information, for lack of organised national and international databases.

Exactitude in total wood use and production emerged as a big challenge in this study, given the way the data appears from some sources: for example, "saw and veneer logs" is a subset of industrial roundwood, while "sawnwood, panel products, and paper and paperboard" are made at least partly from industrial roundwood, with residues from manufacture of some products becoming raw materials for fibreboard and particleboard, as well as for pulp, paper and board products. Roundwood equivalents have been calculated for the seven selected commodities as a safe first approximation.

Trade, including direction of trade, has been reported at sub-regional level, with some country data included for the top five or ten countries in each sub-region. Although it is realised that "trade" occurs both domestically and across country borders, the legal trade aspect of this report focuses mainly on international trade since reliable and comprehensive datasets on domestic trade are hard to get. Estimates of domestic trade can be inferred from net consumption which is calculated by adding imports to production and subtracting exports.

MAIN FINDINGS AND DISCUSSION

An overview of the situation in Africa

The results are presented by commodity as a broad-brush picture at continental level but also sub-regionally (Annex 1) and for selected countries (Tables 1–6). For wood, findings

TABLE 1 *Consumption of seven wood products in Africa*

Product	Volume	Apparent Net Consumption (ANC)[3] ('000 m³ RWE)		
		1990	2000	2010 (Approx % change 1990–2010)
Firewood	Volume	555 712	542 845	624 886 (12%)
	Africa 7products= 100	73.9	70.1	68.1
Charcoal	Volume	56 559	60 618	85 559 (51%)
	Africa 7products= 100	7.5	7.8	9.3
Industrial roundwood	Volume	57 266	65 133	67 528 (18%)
	Africa 7products= 100	7.6	8.4	7.4
Saw and veneer logs	Volume	24 459	29 219	30 046 (23%)
	Africa 7products= 100	3.3	3.8	3.3
Sawnwood	Volume	10 361	10 925	15 773 (52%)
	Africa 7products= 100	2.8	2.8	3.4
Wood-based panels	Volume	3 724	4 382	7 131 (91%)
	Africa 7products= 100	0.5	0.6	0.8
Paper and paperboard	Volume	33 813	50 180	70 939 (110%)
	Africa 7products= 100	4.5	6.5	7.7
Grand Total[4]	Volume	752 254	774 228	917 635 (22%)
	7products= 100	100	100	100

Sources: http://faostat.fao.org/DesktopDefault.aspx?PageID=630&lang=en and http://www.fao.org/forestry/statistics/en/

[2] They originate from the websites http://faostat.fao.org/DesktopDefault.aspx?PageID=630&lang=en and http://www.fao.org/forestry/statistics/en/.

[3] Apparent Net Consumption (ANC) = Production + Imports – Exports; RWE = roundwood equivalent, i.e. the volume of roundwood which would have been used to produce net final product.

[4] Manufactured wood products are largely derivatives of industrial roundwood, except (increasingly) for paper and paperboard, where the recycled fibre can go as high as 40% or higher.

are reported for supply, trade or consumption as volumes, all converted to roundwood equivalents (RWE) of each commodity. All-Africa orders of magnitude on consumption are reported in Table 1.

The population of Africa approximates some 1 billion people[5]. Given the estimated consumption of 0.9 million m^3 (RWE) of some seven selected and dominant wood products (Table 1), every African, on the average, annually consumes about $1m^3$ of wood products, a dominant share being firewood, at 67%, while a distant next in importance is charcoal (about 9% of the total), and with paper and paperboard[6] third, at about 7–8% of the total.

The Africa picture is marked by dominance of "energy" wood products – fuelwood and charcoal, that make 76% of the wood products consumed (Table 1). These are more often consumed outside than inside the formal market economy, and therefore are only inaccurately captured in official statistics. Fuel wood accounts for the bulk of wood products Africa consumes: in 1990, its share alone was about 74%, and this was about 68% by 2010. Such a small decline in two decades might be the result of continued increase in dependence on fuelwood due to increasing population, and also that not much has changed in terms of increasing efficiency in making charcoal and in the cook stoves that use firewood and charcoal. The rapid growth in charcoal consumption in the same period, which was about 51%, could have probably led to considerable deforestation and illegal harvesting of trees/forests for the same, because no reported matching afforestation efforts took place in the same period and charcoal making technology remained practically the same.

However, it is noteworthy that the consumption of paper and paper board doubled in a span of two decades, i.e. 1990–2010, (Table 1), a reflection of the growth in the major consumption sectors like in education. Also consumption of sawnwood increased by about 52% and that of wood-based panels by about 91% in the two decades; this probably being a reflection of growth in the construction industry, and especially the housing sector in a rapidly urbanising continent.

With the exception of fuelwood, for which in 2010 Ethiopia and the Democratic Republic of Congo respectively ranked fourth and fifth in the world as producers (FAO 2011), no African country features among the global top five producers, consumers or traders for any other wood product. Presumably due to its higher incomes, forest-deficient North African countries consume more wood products (other than fuelwood) than the more forest-endowed Sub-Saharan sub-regions (Annex 1) with the exception of Southern Africa. The higher consumption in Southern Africa is largely in South Africa. In the global context, Africa fares as indicated in Box 1.

After fuelwood, charcoal is next most significant traded product with its share steadily rising – from about 7.5% in 1990 to 9.3% in 2010. Charcoal's share alone more or less equals, but at times exceeds, all industrial roundwood put together, which rose from 7.6% in 1990 to 8% in 2000.

Box 1: Africa in global perspective

- If placed in world context, Africa, which accounts for about 15% of global population, consumes about 20% of world roundwood.
- For relatively under-commercialised fuelwood alone, Africa's share rises to 32%.
- As products become more commercialised, Africa's share drops dramatically: for sawnwood, its global share is only 3.7%; for paper and paperboard it is about 1.7% – nearly the same as Africa's share of global GDP.

The first component of trade: the legal intra-African trade in forest products

Among Africa's key ambitions is to regionally integrate its national economies, with countries trading within and across their sub-regions so that African economic activity generates internal development and scarce funds are spent on African products, unless external players enjoy competitive advantage. In this regard, the study reviewed the FAOSTAT data to establish the direction of trade data for commercially legally traded products, but excluded fuelwood (which is largely freely collected for auto-consumption) and charcoal (international trade data exist but reliable and sufficient data does not exist).

Industrial roundwood – Africa's dominant wood export

Africa's industrial roundwood exports continue to be dominated by saw and veneer logs from its humid forests; they fluctuate and in 2000, exports by Africa's top ten exporting countries were about 4.5 million m^3, of which the amount that went to China alone was about 2.5 million m^3, or some 56% of the total. By 2010, the China share had risen to 82%; with exports to India, France, Turkey and Vietnam being less than 10% to each country (Table 2).

In 2000, official (legal) exports by Africa's top ten exporting countries to African destinations within the top 10 importing category were zero; while in 2010 they were about 34,200 m^3 (all to Morocco) i.e. only 1.9% of the total of the top ten exporting countries, indicating very little change over a decade.

Sawnwood exports

In 2010, no African country appears to feature in the top five destinations for the continent's exports from the top ten exporting African countries. By contrast, China alone took 65%, with India next at 10%; and with most of the exports coming from Central Africa. For Cameroon (the leading African exporter), some 59% of exports went to China alone (Table 3).

Sawnwood imports

With regard to sawnwood imports, in 2010, Africa's imports to the top ten importing countries show North Africa

[5] http://worldpopulationreview.com/continents/africa-population/.
[6] http://worldpopulationreview.com/continents/africa-population/.

TABLE 2 *Industrial roundwood 2010: African top 10 exporters' destinations (m^3)*

Top 10 export source countries (African)	Top 5 destination countries					Total for top 5 destination countries	
	China	India	France	Turkey	Viet Nam	Total m^3	Total=1
Congo	511 000	4 000	33 000	6 000		554 000	0.33
Cameroon	388 000	20 000	20 000	25 000	38 000	491 000	0.29
Gabon	266 000	26 000	13 000	9 000		314 000	0.19
Democratic Republic of Congo	46 000		28 000	1 000		75 000	0.06
Togo	94 000	300				94 300	0.05
Central African Republic	45 000	491	8 000	7 000		60 491	0.04
Côte d'Ivoire	2 000	39 000		96		41 096	0.02
Ghana	18 000	15 000	23			33 023	0.02
Sudan		7 761				7 761	0
Nigeria	21	7 564				7 585	0
Total (m^3)	1 370 021	120 116	102 023	48 096	38 000	1 678 256	
Total=1	0.82	0.07	0.06	0.03	0.02		1.00

Sources: http://faostat.fao.org/DesktopDefault.aspx?PageID=630&lang=en, and http://www.fao.org/forestry/statistics/en/

TABLE 3 *Sawnwood 2010: African exporters' top 5 destinations (m^3)*

Top 10 export source countries	Top 5 destination countries					Total for top 5	
	China	India	Belgium	Italy	France	Total (m^3)	Total=1
Cameroon	435 442	22 537	105 000	96 000	81 043	740 022	0.40
Gabon	290 485	27 183	26 226	17 607	16 417	377 918	0.21
Equatorial Guinea	217 000		693	944	2 107	220 744	0.12
Côte d'Ivoire	4 439	39 033	3 748	29 081	5 440	81 741	0.04
Ghana	27363	64 790	3 944	1 517	6 836	104 450	0.06
Democratic Republic of Congo	50 636		14 873	2 595	28 944	97 048	0.05
Togo	94 466	352		477	60	95 355	0.05
Central African Republic	47 949	491	142	2 132	8 181	58 895	0.03
Tanzania	19 063	30 333		1 547	1 827	52 770	0.03
Malawi	151	132				283	0.00
Total (m^3)	1 186 994	184 851	154 626	151 900	150 855	1 829 226	
Total=1	0.65	0.10	0.08	0.08	0.08		1.00

Sources: http://faostat.fao.org/DesktopDefault.aspx?PageID=630&lang=en and http://www.fao.org/forestry/statistics/en/

consuming well over half of all the imports (Table 4). No African country featured in the top five suppliers to Africa.

Information in Table 4 demonstrates the existence of a potentially big market opportunity in North Africa. This is a challenge to forest rich Sub-Saharan countries to satisfy this market if they can match the type of timber it consumes most (most likely construction, and not decorative varieties), and have facilities for its production. Another constraining factor to reaching this market is the absence and/or presence of poor infrastructure between North African countries and south of the Sahara. Ocean transport could also be limiting due to high freight costs as compared to sourcing these products from Europe. These are not issues that can be addressed by the forestry sector; rather they can be addressed within the broader context of current efforts to increase regional socio-economic integration in Africa, that also has potential to promote intra-African trade.

Wood-based panels

Exports of wood based panels are modest and come mainly from Central and West African countries and South Africa. In 2010, Ghana was the largest exporter, with 184,000 m^3

TABLE 4 *Sawnwood imports to ten top countries in 2010 from top 5 sources (m^3)*

Top 10 importing African countries	Top 5 source countries supplying Africa					Total top 5 supply countries	
	Sweden	Finland	Russian Federation	Romania	Germany	Total m^3	Total=1
Egypt	1 114 000	760 048	1 161 580	297 727	273 660	3 607 015	0.59
Algeria	973 079	522 857		22 000	17 000	1 534 936	0.25
Morocco	314 339	251 026	782	23 351	38 883	628 381	0.10
Tunisia	91 517	67 168	17 120	22 021	13 428	211 254	0.03
Libya	34 176	263	4 125	5 112	9 554	53 230	0.01
Sudan Republic	23 431	1 621		3 491	3 559	32 102	0.01
Ethiopia	54			22		76	0.00
South Africa	263	1 139	147	1 000	2 150	4 699	0.00
Senegal					228	228	0.00
Total	2 550 859	1 604 122	1 183 754	374 724	358 462	6 071 921	1.00
Total=1	0.42	0.26	0.19	0.06	0.06	1.00	

Sources: http://faostat.fao.org/DesktopDefault.aspx?PageID=630&lang=en and http://www.fao.org/forestry/statistics/en/

followed by Gabon, Cote d'Ivore, South Africa and Cameroon in that order. Africa exported a total of 646,000m^3 in 2010 (FAO 2013).

Imports of wood based panels to Africa stood at around 2 100 000 m^3 in 2010, with the largest importers being countries in North Africa namely Egypt (699 000m^3), followed by Morocco (225 000m^3), Algeria (196 000m^3), and Tunisia (136 000m^3) in that order. South Africa (202 000m^3) and Nigeria (100 000m^3) also imported large quantities of these panels. These six countries account for 74% of all imports, while the three North African countries alone account for about 60% of all imports. It is clear from these statistics that Africa has a large deficit in wood based panels' trade.

Paper and paperboard

In this paper, newsprint has been used as proxy for paper and paperboard whose composition by different types of products is complex. Newsprint has the advantage of being consumed by even the poorest countries. The main consumption centres are North (37%) and Southern Africa (51%) (Annex1). North Africa, with the continent's poorest forest resources, is second only to Southern Africa (another natural forests deficient region) as a paper and board producer. The sub-regions best endowed with forests that could be converted to pulp (Central and West Africa), have negligible production capacity for paper and paperboard. Tables 5 and 6 indicate the existence of a big negative trade balance with respect to newsprint in Africa.

There is very little intra-African trade in newsprint, as seen from Table 5. The exports are mainly from South Africa (68%) and Algeria (29%) to other African countries. Of the intra-African imports of newsprint in 2010, Nigeria took 50% of imports from the top eight African exporters, followed by Kenya at 22% and Zimbabwe at 15%. Other countries together took up less than 10%.

With respect to sources of imports by Africa's top ten importing countries from five top exporting countries, no African country was among the suppliers (Table 6). Canada and Russia are the main exporters, while Algeria, Egypt and Kenya received the bulk of the exports from these top five suppliers in 2010.

The second component of trade: the 'illegal' intra-African trade in forest products

Going by the information in the previous section, that is based on official statistics, one gets the impression that there is very little trade in forest products going on between African countries. The truth is that there is considerable trade in these products among countries in the continent.

For example, while the West and Central African legal timber goes mainly to China, India and Europe there are considerable exports to the Sahelian countries which totally depend on timber from Cote d'Ivoire, Ghana, Guinea Conakry and Togo. However, records are not accurate enough to confirm levels of such exports. Such trade is largely informal and mainly from small scale operators. For example, Lescuyer *et al*. (2012), reports that national and intra-COMIFAC markets are mostly supplied by small-scale mills or chainsaw operators. Recent studies by Cerutti and Lescuyer (2011) and Lescuyer *et al.* (2012) highlight the following for sawnwood produced by chainsaw:

a) between Cameroon and Chad, there are at least 80 000 m^3 per year of informal exportation;
b) between Cameroon and Nigeria, there are at least, 12 000 m^3 per year of exportation;
c) between Central African Republic and Chad, at least 6 000 m^3 per year of exportation;
d) between Democratic Republic of Congo and Uganda, Burundi and Rwanda, there are at least 50 000 m^3 of exportation.

TABLE 5 *Intra-African trade in newsprint in 2010 (Mt)*

Top 8 export African countries	Top 5 destination African countries					Total: Top 5 importing countries	
	Nigeria	Kenya	Zimbabwe	Zambia	Malawi	Total (Mt)	Total=1
South Africa	12 011	13 526	9 175	4 401	3 992	43 105	0.68
Algeria	18 313					18 313	0.29
Kenya						0	0.00
Democratic Republic of Congo	1 075					1 075	0.02
Tanzania		394				394	0.01
Mauritius						0	0.00
Burkina Faso	128					128	0.00
Mozambique			28			28	0.00
Total	31 527	13 920	9 203	4 401	3 992	63 043	1.00
Total=1	0.50	0.22	0.15	0.07	0.06	1.00	

Sources: http://faostat.fao.org/DesktopDefault.aspx?PageID=630&lang=en and http://www.fao.org/forestry/statistics/en/

TABLE 6 *Imports to Africa of newsprint in 2010 (Mt)*

Top 10 importing African countries	Top 5 source countries supplying Africa					Total: Top 5 supplying sources	
	Canada	Russia	France	Sweden	Germany	Total (Mt)	Total=1
Algeria	31 710	1 215	14 778	6 877	10 920	65 500	0.28
Egypt	16 372	21 391	5 032	7 447	2 020	52 262	0.23
Kenya	11 390	13 407	5 213	1 335	813	32 158	0.14
Nigeria	121	247	52	2 994	3 994	7 408	0.03
Morocco	1 181	1 376	11 318	2 065	174	16 114	0.07
Tunisia	3 820	2 130	5 562	2 691	472	14 675	0.06
Tanzania	790	5 680	148	3 594	149	10 361	0.04
Uganda	759	4 206	104	6 480	781	12 330	0.05
South Africa		330		1 573	8 642	10 545	0.05
Ghana	2 707	5 654	140	412	608	9 521	0.04
Total	68 850	55 636	42 347	35 468	28 573	230 874	1.00
Total=1	0.30	0.24	0.18	0.15	0.12	1.00	

Sources: http://faostat.fao.org/DesktopDefault.aspx?PageID=630&lang=en and http://www.fao.org/forestry/statistics/en/

Furthermore, timber volumes exported informally from Democratic Republic of Congo to the upper Great Lakes region (mainly Uganda, Rwanda and Kenya) in 2006 were 50 504 m^3 (Forest Monitor, 2007).

Further, Chevallier and du Preez (2012) in their study on timber trade in Africa's Great Lakes report that:

- the timber estimated by Forests Monitor to have been exported from the eastern part of the Democratic Republic of Congo in 2006 was about 59 000 m^3;
- about 80% of that timber (i.e. 47 000 m^3) left the eastern DRC through the DRC–Uganda border; and about 50% of this timber (i.e. 23 000 m^3) remained in Uganda, and the rest went to South Sudan (5 000 m^3) and Kenya (19 000 m^3);
- about 5–10% of timber leaving eastern DRC goes to international markets,
- by 2011, about 60 000 m^3 of timber was leaving eastern DRC per year, and that more than 80% of it was through the DRC–Uganda border;
- about 16–17% of the timber leaving eastern DRC via Uganda ends up in Uganda, while 63% ends up in Kenya, and 2% passes through Kenya to other international destinations outside of Africa; also about 18% of it ends up in South Sudan. They argue that their study figures are much lower than estimates made by SGS which estimated exports of 200 000 m^3 of rough sawnwood and more than 600 000 m^3 of roundwood equivalents from the Orientale and North Kivu Provinces.

"If the SGS figures are to be believed, the informal trade from the eastern DRC is at least double the size of the formal trade from the whole of the DRC. Somewhere between the Forests Monitor and the SGS figures are those of the Congolese Ministry of Environment, which estimated that 80 000 m^3 of roughly sawn timber is likely to have been produced in the north-eastern DRC during 2010" Chevallier and du Preez (2012).

In Central Africa, Mvondo (2013) reports that most intra-regional trade flows are small and informal. This would mean that such trade is internationally insignificant even if "large" on the domestic scale. In Central Africa, although accurate figures are difficult to come by, it is believed that up to 50% of logs are illegally harvested. Here, two countries – DRC and Cameroon – stand out in matters of illicit practices: (i) DRC – because of its massive size and many long borders with neighbouring countries relative to government's oversight capacity; and (ii) Cameroon – both for wood trade with neighbouring countries and as a transit country for forest products from Central African Republic and the Republic of Congo.

The accuracy of the statistics on the informal trade is questionable because of difficulties in monitoring and reporting such trade along long porous borders in many of these countries. However, the little information available strengthens the fact that there is considerable profitable unrecorded trade in forest products between African countries and between the RECs. While a lot of attention and resources have been expended on curbing this 'illegal trade' in forest products, not sufficient efforts have been devoted to understanding it and formulating ways of organising the same trade legally.

Some aspects of the 'illegal trade' in forest products

The illegal trade in forest products is mainly conducted by small informal enterprises that are most easily disadvantaged by disproportionate charges and onerous procedures at country borders, in addition to being exploited by officials seeking "tips". Tips and similar payments partly drive these informal businesses to turn illegal, either in accepting to paying the tips or evading formal processes, including avoiding official border posts altogether. Box 2 gives some characteristics of informal enterprises and some key challenges they face.

Using Eastern Africa as an example, illegal practices identified by Kakuru (2012) include:

- Operating formal businesses but resorting to under-declaration, false grading or under-invoicing of products;
- Evading trade related regulations and duties by avoiding official border crossing posts and passing through un-gazetted routes, given the long and not properly patrolled porous borders;
- Using forged documents for declaration in the movement of relevant forest products; and
- Operating informal unregistered businesses, which do not pay appropriate dues to the forest management and revenue agencies.

Popoola (2013) describes a similar situation in West Africa: forestry authorities verify exports and concession-contract compliance, then issue certificates of origin. Customs authorities carry out final inspection against export and loading documents. Both institutions are weak and offer many opportunities to circumvent legal requirements. According to Popoola (2013), excessive restrictions on legal access to forest resources, including unclear and insecure tenure and overly bureaucratic licensing procedures, promote the illegal extraction of resources and also leads to forest encroachment.

Box 2: Informal enterprises: characteristics and key challenges

In Southern Africa, some of the identified characteristics of the informal traders (not specific to forest products) are that:

a. Females constitute 69% of the traders
b. On average the length of stay in business is between 4 and 11 years
c. Most traders have little education
d. Traders belong to low income brackets
e. The average family size of the traders is six.

Findings for Eastern Africa, which may also be applicable elsewhere in Africa, suggest that cross-border trade (CBT) raises the following, among many other challenges:

a. Data collection- since most of the trade does not go through the established channels, data on the extent of the trade is elusive, resulting in governments formulating policies that may not support CBT;
b. High transaction costs- relative to the size of business that they are engaged in, custom duty charges are prohibitive to the traders, and often additional corrupt tips only add to this burden;
c. High risks- especially those associated with crossing rivers and thick forests/woodlands/bush;
d. Lack of security for their merchandise- Traders avoid using normal channels for fear of having their illegal merchandise confiscated;
e. Lack of trading places- most places that the traders go to are occupied by the natives of the land. This leaves cross-border traders with little or no space for trading; and
f. Poor sanitation- in most cases, places of trade are congested and have poor sanitation.

Sources: Adapted from Kakuru (2012) and Makano (2013)

Further, domestic policies in some of the countries not only affect exports but also direction of local supplies. For example, for Guinea, Popoola (2013) reports of an apparent denial of legitimate local demand, with the government blocking timber supply to urban markets, consequently fuelling a surge in clandestine supplies of illegal chainsaw produced timber. Popoola (2013) also reports on apparent marginalization of domestic needs in Ghana, where export-oriented companies are given exclusive rights to Teak (*Tectona grandis*) and Cedrela (*Cedrela odorota*) plantation timbers. In Côte d'Ivoire, log exports were banned in 1994 and since then traditional species are rationed in the domestic market so that more can be exported. Such distortions in already poorly-functioning markets undermine forest governance in the sub-region and encourage perverse incentives for illegal and underhand operations while discouraging sustainable management and conservation of the resource.

In West Africa, the larger mills are poorly integrated with national economies: they concentrate on exports, often ignoring legitimate domestic demand. This has caused a boom in informal small operations – many thought to be illegal – to supply low-grade and low-cost timber and plywood (driven mainly by housing construction as economies grow). Popoola (2013) reports that in West Africa, the informal sector, due to wasteful low rates of conversion (predominantly in sawmilling), consumes proportionately more wood fibre than the formal sector per unit of final product. Nevertheless, despite being disadvantaged, the illegal logging and trade enterprises are still able to undermine the profitability and competitiveness of the formal industry.

Overall, Africa's wood industries have such a high proportion of informal and small scale operations that few are global players. High taxes to the industry may also be reducing the incentive to formalize, leading to continued high levels of informality. Further, illegal trade denies the state its legitimate right to tax revenues, so compromising development. In addition, illegal forest exploitation has also been linked to fuelling and financing conflicts and wars.

To tackle some of these governance problems, five Congo Basin countries (Cameroon, Central African Republic-CAR, Republic of Congo, Democratic Republic of Congo-DRC and Gabon) are currently either negotiating or in the initial stages of implementing Voluntary Partnership Agreements (VPAs) with the European Union under the Forest Law Enforcement, Governance and Trade (FLEGT) mechanism. The Republic of Congo and Cameroon signed their VPAs in May and October 2010 respectively, CAR in December 2010, Gabon and DRC began their negotiation in 2010. According to Mvondo (2013), this is an example of measures implemented to fight illegal forest practices, and are initiated and/or driven by actors external to the continent.

So what can be done about the informal trade?

While there is need to carefully study this trade, and more specifically its players, routes, markets and the required conducive environment for it to thrive, like supporting infrastructure and policies, the following could be done in the interim period:

1. Accept and appreciate that there is considerable profitable informal cross-border trade in these products at national and sub-regional levels.
2. Improve trade relations between affected countries and RECs in ways that formalise such trade, rather than concentrating all efforts on touting 'illegal' trade and policing borders.
3. Organise the players in the marketing and trade of such products into cooperatives or associations that could promote dialogue between interested parties and them, and for them to collectively articulate their issues. This way they can be heard and supported. Also build or strengthen their capacity in the deficient areas. Already the SADC region is developing a SADC Timber Association that will eventually bring together timber processors and those in marketing and trade in the different SADC countries for common purposes.
4. National governments should put up enabling policies (e.g. on taxation and revenue collection, product certification, etc.), institutions (more efficient customs and revenue collection), physical infrastructure (like roads) to facilitate this trade. Illegality in trade is not confined to the forestry sector, other sectors like agriculture and livestock have illegalities that also need to be contained in order to have vibrant trade between countries and sub-regions.
5. Lesson learning among countries and between RECs should be promoted and supported because some countries and sub-regions are more advanced in handling such issues than others.

CONCLUSIONS AND RECOMMENDATIONS

The following recommendations, if properly implemented, can contribute to creating a future in which Africa benefits more from its resources:

a. To correct the fact that Africa has exported and continues to export forest products in unprocessed form, with value addition mostly done outside the continent, it is emphasised, as has been done previously by others on numerous times, that forest-rich African zones (Central and West Africa) prioritise their self-interest better in future or risk having the resource disappear without ever having benefited much from it. Towards this end and subject to confirmed economic viability, they can take the following initial key steps:
   - Invest in value-added processing into all industrial forest products including pulp and paper from mixed tropical hardwoods; this has been said many times before, but it has yet to happen.
   - Capture a greater share of Africa's own market for processed products that are currently greatly dominated by imports from non-African sources – major ones being in North Africa and Southern Africa and (increasingly also) West Africa;

b. Although currently much of Africa's wood consumption is as informally and unpaid-for unprocessed fuelwood, the continent needs to anticipate the impacts of urbanisation on the demand for processed forest products. It is recommended that necessary measures be undertaken to organise for increased production, harvesting, processing and consumption of wood products, as well as better organised trade in forest products, so that all can rest on sound and sustainable management of the resource;
c. Charcoal production and trade is already Africa's largest wood processing industry (larger than paper and paperboard manufacture), and the product is a staple energy source for millions already urbanised or becoming so. Charcoal is not a fuel of history but of the African future; and affordable alternatives to it are difficult to come by in the foreseeable future. Given its current disorganised and destructive nature, it is therefore recommended that all necessary measures be taken to place charcoal making on a sound footing: to make the sub-sector a legitimate, dynamic and fully legalised, mainstreamed, modernised activity – anchored on sustainable raw material provision and its production and trade in it better organised;
d. For lack of official recognition and assistance to organise and to invest in self-improvement, small and medium-scale wood processing enterprises far too often operate informally and can be destructive of the resource, yet it appears that despite the disadvantages they face, they are supplying more wood products for local construction and furniture than the large formal industries. It is recommended that, as for charcoal, appropriate measures be taken to formalise such industries and to accompany such officialisation with technical assistance and financial incentives – including those which can reward responsible behaviour. Again much has been said on this in the past, but no significant progress appears to have been recorded.

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LITERATURE

CERUTTI, P.O. and LESCUYER, G. 2011. The domestic market for small-scale chainsaw milling in Cameroon: Present situation, Opportunities and Challenges. CIFOR Occasional Paper 61. CIFOR: Bogor.

CERUTTI, P.O., INGRAM, V. and SONWA, D. 2009. The Forests of Cameroon in 2008. In: C. de Wasseige, D. Devers, P. de Marcken, R. Eba'a Atyi, R. Nasi and Ph. Mayaux (eds.), *The Forests of Congo Basin: State of the Forest 2008*. Publication Office of the European Union: Luxembourg, pp. 43–56.

CHEVALLIER, R. and du PREEZ, M. 2012. Timber trade in Africa's Great Lakes: the road from Beni, DRC to Kampala, Uganda. Research Report 11: Governance Programme. South African Instituteof International Affairs (SAIIA), Johannesburg, South Africa.

CHIPETA, M.E. 2014. Forest products trade in Africa: a sub-regional baseline – a synthesis. Unpublished interim report, African Forest Forum (AFF), Nairobi, Kenya.

FAO. 2011. Yearbook of Forest Products, 2010. FAO, Rome.

FAO. 2013. FAO Yearbook of Forest Products 2007–2011, FAO, Rome.

FAOSTAT-Foresty.2011.http://faostat.fao.org/site/630/default.aspx.

FAOSTAT. 2012. Food and Agricultural Statistics Database. FAO http://faostat.fao.org/site/628/default.aspx.

FORESTS MONITOR. 2007. The Timber Trade and Poverty Alleviation in the Upper Great Lakes Region. Forests Monitor Reports Series. London.

GLOBAL FOREST WATCH. 2000. An Overview of Logging in Cameroon. World Resource Institute: Washington D.C.

KAKURU, W. 2012. Review of trade in forest products in the Eastern African Region. Unpublished interim report. African Forest Forum, Nairobi.

LESCUYER, G., CERUTTI, O.P., ESSIANE MENDOULA, E., EBA'A ATYI, R., and NASI, R. 2012. Evaluation du secteur du sciage artisanal dans le bassin du Congo. *In*: C. de Wasseige, P. de Marcken, N. Bayol, F. Hiol Hiol, Ph. Mayaux, B. Desclée, A. Nasi, A. Billand, P. Defourny, R. Eba'a Atyi (eds.), *Les forêts du bassin du Congo: Etats des forêts 2010*. Office des publications de l'Union Européenne: Luxembourg, pp. 97–107.

MAKANO, A. 2013. Forest governance and equitable trade practices in Southern Africa. Unpublished interim report. African Forest Forum, Nairobi.

MVONDO, S.A. 2013. An analytical review of forest governance and equitable trade practices in Central Africa. Unpublished interim report. African Forest Forum, Nairobi.

NEPAD. 2007. Building a Sustainable Energy Base. The New Partnership for African Development (NEPAD. NEPAD Platform Report.

POPOOLA, L. 2013. Cross-border Trade in Forest Products and Services and Trade Impacts in West Africa. Unpublished interim report. African Forest Forum, Nairobi.

RAPY. 2005. Requête adressée au Panel des Experts de la Banque mondiale le 30 octobre. Kinshasa.

TIEGUHONG, J. and NAIR, C.T.S. 2004. African forests and forestry: an overview. AFORNET. Nairobi.

Annex 1. Wood products consumption in Africa

Product	Sub-Region	Apparent Net Consumption (ANC) ('000 m^3 RWE)		
		1990	2000	2010 (% change 1990–2010)
Firewood	North Africa	30 993	34 570	37 447 9 (20.82%)
	West Africa	180 848	153 763	175 074 (–3.19%)
	Central Africa	67 964	84 111	99 427 (46.29%)
	Eastern Africa	206 519	203 581	239 158 (15.80%)
	Southern Africa	69 388	66 820	73 779 (6.33%)
	All Africa	**555 712**	**542 845**	**624 886** (12.45%)
Charcoal	North Africa	5 390	6 747	7 881 (46.22%)
	West Africa	14 614	19 412	27 548 (88.50%)
	Central Africa	4 367	5 447	9 273 (112.34%)
	Eastern Africa	25 894	21 252	28 576 (10.36%)
	Southern Africa	6 294	7 759	12 282 (95.14%)
	All Africa	**56 559**	**60 618**	**85 559** (51.27%)
Industrial roundwood	North Africa	1 475	1 980	1 561 (5.83%)
	West Africa	16 190	18 024	16 557 (2.27%)
	Central Africa	7 702	7 250	11 323 (47.01%)
	Eastern Africa	9 697	13 396	14 999 (54.68%)
	Southern Africa	22 201	24 482	23 088 (4.0%)
	All Africa	**57 266**	**65 133**	**67 528** (17.92)
Saw and veneer logs	North Africa	744	494	365 (–50.94%)
	West Africa	10 755	12 045	10 702 (–0.1%)
	Central Africa	4 555	6 500	8 753 (92.16%)
	Eastern Africa	2 145	2 159	4 040 (88.34%)
	Southern Africa	6 259	8 021	6 186 (–1.17%)
	All Africa	**24 459**	**29 219**	**30 046** (22.84%)
Sawnwood	North Africa	3 246	3 832	8 882 (173.63%)
	West Africa	3 424	2 536	2 748 (–19.74%)
	Central Africa	603	1 072	486 (–19.4%)
	Eastern Africa	468	829	677 (44.66%)
	Southern Africa	2 620	2 656	2 979 (13.7)
	All Africa	**10 361**	**10 925**	**15 773** (52.23%)
Wood-based panels	North Africa	1 320	500	2 353 (78.26%)
	West Africa	764	1 201	1 642 (114.92%)
	Central Africa	414	195	479 (15.7%)
	Eastern Africa	375	241	769 (105.07%)
	Southern Africa	850	1 245	1 889 (122.24%)
	All Africa	**3 724**	**4 382**	**7 131** (91.49%)
Paper and paperboard	North Africa	11 321	18 759	29 660 (161.0%)
	West Africa	1 758	3 046	5 605 (218.83%)
	Central Africa	555	388	689 (24.14%)
	Eastern Africa	1 722	2 606	5 057 (193.67%)
	Southern Africa	18 458	25 379	29 928 (62.14%)
	All Africa	**33 813**	**50 180**	**70 939** (109.8%)

Sources: http://faostat.fao.org/DesktopDefault.aspx?PageID=630&lang=en and http://www.fao.org/forestry/statistics/en/