
Promoting African integration through trade in forest products: Cameroon’s perspective

J. C. TIEGUHONG1*, G. KOWERO2 and S. P. MANDIEFE3
1Africa Natural resources Centre, African Development Bank, Immeuble CCIA - Avenue Jean Paul II, Abidjan, Plateau, 01 BP 1387, Abidjan 01 - Côte d’Ivoire
2African Forest Forum, P.O. Box 30677-00100, Nairobi, Kenya
3ICRAF, P.O. Box 16317, Yaounde, Cameroon
Corresponding author: j.tieguhong@afdb.org

ABSTRACT
Intra-African trade has been highly promoted as a sustainable growth pathway for African economies. However, intra-African trade of forest products and its contribution to boosting the African integration agenda is not well covered in literature and promotional strategies are not well-known. This paper provides information that can be used to promote intra-African trade in forest products through an assessment of wood products traded between Cameroon and countries within the five African sub-regions. Cameroon’s national trade in forest products for the period 2009 to 2014 was analysed to establish export trends in major wood products to various continents, in addition to highlighting intra-African trade in the five African sub-regions. Results showed that from 2009 to 2014, exports of wood products from Cameroon amounted to 7,281,710 m³, and was made up of five products categories, namely: logs (48%), sawnwood (47%), veneers (2.8%), and plywood and parquets (<2%). Of this trade, the share of intra-African trade was logs (2%), sawnwood (7.4%), veneers (11%) and plywood (29.7%); all of which represented about 5.3% for all wood products. This trade was among 22 African countries on the continent, with significant differences in inter-regional distribution (P<0.05). The top three logs importing African countries were Morocco (89.5%), Algeria (5.6%), Tunisia (2.1%) and Senegal, Tanzania, Nigeria and South Africa together (3%), respectively. The top five sawnwood importers were Senegal (51.9%), Libya (25.7%), Tunisia (11.2%), Morocco (3.5%) and Mauritius (2.6%). The top five veneers African importers were Senegal (31%), Tunisia (21%), Egypt (12%), Morocco (10%) and Gabon (9.7%); while eight other African countries imported the remaining 18%. The top five plywood importers included Senegal (64.4%), Equatorial Guinea (13.5%), Gabon (5.6%), Democratic Republic of Congo (4.8%) and Tunisia (3.9%). This paper demonstrates Cameroon’s efforts in fostering trade in wood products with 22 other African countries that are spread in all five sub-regions of the continent. Evidence from trends in trade in wood products between Cameroon and other African countries shows that Cameroon is already contributing to the promotion of intra-African trade and by extension regional integration on the continent.

Key words: African sub-regions, Cameroon, Intra-African trade, Regional Economic Commissions, timber trade


Received: 14 August 2018
Accepted: 28 February 2019
Published: 31 March 2019


**RÉSUMÉ**

Le commerce intra-africain a été hautement promu en tant que voie de croissance durable pour les économies africaines. Cependant, le commerce intra-africain des produits forestiers et sa contribution au renforcement de l’agenda d’intégration de l’Afrique ne sont pas bien couverts par la littérature ainsi que les stratégies de promotion ne sont pas bien connues. Ce document fournit des informations pouvant être utilisées pour promouvoir le commerce intra-africain de produits forestiers grâce à une évaluation des produits en bois commercialisés entre le Cameroun et les pays des cinq sous-régions africaines. Les résultats ont montré qu’entre 2009 et 2014, les exportations de produits en bois du Cameroun s’élevaient à 7 281 710 m³ et étaient réparties en cinq catégories de produits, à savoir: grumes (48%), bois de sciages (47%), placages (2,8%), planches de contreplaqués et parquets (<2%). La part de ce commerce intra-africain était composée de grumes (2%), de bois de sciages (7,4%), de placages (11%) et de contreplaqués (29,7%); ce qui représente environ 5,3% de l’ensemble des produits du bois. Ce commerce concernait 22 pays du continent africains, avec des différences importantes dans la répartition interrégionale (p <0,05). Les trois principaux pays africains importateurs de grumes étaient le Maroc (89,5%), l’Algérie (5,6%), la Tunisie (2,1%) et l’ensemble Sénégal, Tanzanie, Nigeria et Afrique du Sud (3%). Les cinq principaux importateurs de sciages étaient le Sénégal (31%), la Libye (25,7%), la Tunisie (11,2%), le Maroc (3,5%) et la Mauritanie (2,6%). Les cinq principaux importateurs africains étaient le Sénégal (31%), la Tunisie (21%), l’Égypte (12%), le Maroc (10%) et le Gabon (9,7%); tandis que huit autres pays africains importaient les 18% restants. Les cinq principaux importateurs de contreplaqués sont le Sénégal (64,4%), la Guinée équatoriale (13,5%), le Gabon (5,6%), la République Démocratique du Congo (4,8%) et la Tunisie (3,9%). Cet article démontre les efforts du Cameroun pour promouvoir le commerce des produits du bois avec 22 autres pays africains répartis dans les cinq sous-régions du continent. Les tendances des échanges de produits ligneux entre le Cameroun et d’autres pays africains montrent que le Cameroun contribue déjà à la promotion du commerce intra-africain et, par extension, à l’intégration régionale sur le continent.

Mots clés : Sous-région africaine, Cameroun, commerce intra-africain, commissions économiques régionales, commerce du bois

**INTRODUCTION**

The need for African integration has been captured in the Organisation for African Unity (OAU) Charter, the Monrovia Declaration, the Lagos Plan of Action, the Abuja Treaty, the African Union Constitutive Act and the New Economic Partnership for African Development (NEPAD) (AUC, 2015a, 2014). Africa’s Integration Vision is elaborated in the Abuja Treaty, which established the African Economic Community (AEC) in 1991. The Treaty, which came into force in 1994 and will continue over a transition period of 40 years (1994-2028), provides for the establishment of a continent-wide economic cooperation with pioneer eight Regional Economic Commissions (RECs) as building blocks (OAU, 1991). There are at least 14 RECs in Africa that are officially or unofficially recognised by the African Union (AU), some of which overlap in membership (Barka, 2012). The RECs are the pillars of the AEC that are recognised by the African Union with mandates to be progressively strengthened into a coherent pan-African economic institution (UNECA, 2010; Oppong, 2011; Tumuhimbise, 2013). This envisages a continent where there
is free movement of people, goods and services, rights of establishment, free circulation of goods, free movement of capital, free movement of labour, among others (Tumuhimbise, 2013; AUC, 2015 a&b). These visions are tied to two of the four main objectives for setting up the AEC: (a) to promote economic, social and cultural development and the integration of African economies in order to increase economic self-reliance and promote an endogenous and self-sustained development; and (b) to establish on a continental scale, a framework for the development, mobilisation and utilisation of the human and material resources of Africa in order to achieve a self-reliant development (OAU, 1991). Fifty four (54) African countries are signatories to AEC, including Cameroon. In managing its forests, Cameroon is also a signatory to the African Convention on the Conservation of Nature and Natural Resources with the triple objectives of enhancing environmental protection; fostering the conservation and sustainable use of natural resources; and harmonising and coordinating policies in view of achieving ecologically rational, economically sound and socially acceptable development policies and programmes (AUC, 2003). The aforementioned treaties, conventions and institutional frameworks demonstrate and confirm the great desire of Cameroon and other African countries to integrate their economies towards the enhancement of mutual growth and development.

Added to the above, the concept of ‘African solutions to African problems’ has become a compelling maxim of the African Union (AU) with a clarion call that resonates equally among governments and civil society on the continent (Nathan 2013). The maxim applies to a wide range of issues, including development, education and health, but it is used most often in relation to peace and security (Ayittey, 2010). Also, the concept of ‘African solutions’ evokes a sense of self-reliance, responsibility, pride, ownership and indigeneity and calls on African countries to come together and work in partnership with the international community to address problems inherent on the African continent. This means that Africa as a continent must endeavour to be a full partner in addressing African problems although, not in isolation from the international community (Ayittey, 2010). In complement to the above concepts is that ‘Africa must feed Africa’, a concept promoted by the African Development Bank that will require unlocking the potentials of Africa to diversify African economies (Adesina, 2015).

Enakele (2015) emphasises that the key to unlocking Africa’s true economic potential is an Africa that trades with itself. Africa cannot rely on the rest of the world to deliver on the trade agreements and preferences, policies, strategies and indeed investments required for growth (AUC, 2015 a&b). This could partially be achieved through regional trade in goods and services, albeit impending shortcomings (Geda and Kibret, 2001; Daya et al., 2006). However, for all commodities of trade value, intra-continental trade is still limited in Africa at 10-13% compared to other continents like Europe (72%), Asia (52%), North America (48%), and South and Central America (26%) (Hartzenberg, 2011; WTO, 2011). However, these global figures tend to obscure the realities of intra-continental trade on specified types of products from specific countries (UNECA, 2010; UNCTAD, 2013). Such information, and at the country level, may help shape the implementation of regional policies, treaties and conventions for effective African integration through trade.

With the population of Africa expected to rise to 2.5 billion by 2050 and to 4 billion by the turn of the century (Adesina, 2015), the questions the forestry sector should ask itself could include: How will Africa meet the wood products needs of this growing population? Will Africa simply
Promoting African integration through trade in forest products: Cameroon’s perspective

depend on ever increasing wood products imports? Is such a scenario unacceptable? How much does Africa spend annually on importing wood products? By simply turning African into a relatively wood products self-sufficient continent, the many billions of foreign currencies spent on importing can be spent on other domestic needs without recourse to expensive international capital markets. With this understanding, many authors believe that Africa’s economic success depends on the ability of the continent’s nations to trade with one another (Mwai, 2016).

As a case study on how Africa can increase trade in itself, this paper focuses on four wood products categories from Cameroon that were exported to other African countries over a period of six years (2009-2014). This paper therefore, relies on only one aspect of trade: exports of wood products; however, there are several other aspects to consider in trade. For example, the paper does not try to analyse policy implications of regional timber trade in Africa (Njinkeu and Fosso, 2006; Chipeta and Kowero, 2015) or the constraints to intra-African trade (Daya et al., 2006) or the dynamics of intra-regional trade (Zannou, 2010; Ebaidalla and Yahia, 2014; Shuaibu, 2015); but rather attempts to demonstrate the magnitude and extent to which wood products from Cameroon are traded with other African countries within the five African sub-regions (Eastern, Central, Northern, Southern and Western); indicative to boosting African integration. In this light, this paper will contribute to a better understanding of intra-African trade in forest products exported from Cameroon and provide empirical evidence that wood products value chains could be strengthened and/or properly developed to ensure continuous and improved interactions and trade among African countries.

STUDY METHODS
Cameroon and the forestry sector. Cameroon is a lower middle-income country with a population of 21.7 million people. It is situated in Central Africa and it shares its border with five countries namely Nigeria, Chad, Central African Republic, Equatorial Guinea and Gabon. Cameroon is endowed with significant natural resources, including oil and gas, high value timber species for logs, sawnwood, veneers and plywood, non-timber forest products, minerals, and agricultural products such as coffee, cotton, cocoa, maize, cassava (World Bank, 2015). Cameroon has for the first time embarked on the formulation of a long-term development vision, which projects the image of the country up to 2035. In that context, the main issue concerning the implementation of the Growth and Employment Strategy Paper - GESP (2010-2020) is focused on growth acceleration, the creation of formal jobs and poverty reduction (GESP, 2009).

The dense humid forest represents about 36.2% of the national territory (including water and land totalling 475,440 km²). The total surface area of Cameroon’s forests is 23,035,630 ha representing 48.73% of the national territory (Alemagi, 2011). Production forests are exploited and managed under four forest management models and partnerships arrangements, representing varying proportions of total forests; namely:
(a) forest concessions/forest management units - 30.64% (government in partnership with private sector);
(b) community forests - 8.04% (government in partnership with communities);
(c) council forests - 6.71% (government in partnership with local councils); and
(d) sale of standing volumes - 1.65% (government in partnership with the private sector).

Indeed, the four production management models or partnership arrangements cover 47.04% of Cameroonian forests or 23% of the national territory (Tieguhong, 2016a). There are 111...
forest management units in Cameroon covering a total of 7,058,958 ha out of which 66% (5,071,000 ha) are managed concessions and 34% (2,393,061 ha) are certified (de Wasseige et al., 2015).

In this paper, exports of wood products between Cameroon and countries within the five African sub-continental regions are tracked and explained. To show the regional spread of wood products exports from Cameroon to other African countries, partner countries were divided according to the United Nations sub-regional blocks of Africa (Favada, 2009; Chipeta and Kowero, 2015); namely Eastern, Central, Northern, Southern and Western. Three factors explain the selection of Cameroon for this study (i) geographically centralised country in Africa, (ii) endowed with forest resources, and (iii) signatory to Africa Economic Commission of the African Union.

Trade data were sourced from various databases, including national trade statistics from the Commerce du bois du Cameroun (COMCAM) (2009-2014). Desk review of relevant reports, policy documents, information from various websites and scientific articles were carried out to substantiate and complement findings. In terms of data analysis, descriptive statistics in terms of proportions in percentages as well as analysis of variance (ANOVA) to see the variation in regional distribution were employed. The statistical data analysed cover only wood products exported through the Douala seaport. What goes through other seaports, the porous borders of the country via roads and navigable rivers were not reported. This reveals a weakness in the data reported, as well as a recommendation on the need to improve trade data collection to capture other exit points for intra-African trade. Further, the recorded data were on legal exports, notwithstanding the fact that there could be considerable unrecorded legal and illegal exports of forest products. In this paper, only certain categories of primary (logs) and secondary forest production (sawnwood, veneers and plywood) were considered. Logs were considered as primary forest production while sawnwood, veneers and plywood were considered as secondary forest production. Trade information on fibreboards, particle boards, paper and paper boards as well as secondary processed wood products (SPWPs) such as wood furniture, mouldings, builder wood and cane and bamboo products were patchy and not analysed. Based on the results, the extent to which Cameroon trades on the four specified wood products with other African countries was captured, demonstrating albeit in a limited way, the avenues available for boosting regional integration through trade in forest products.

RESULTS AND DISCUSSION

Five main primary and secondary wood products categories exist in Cameroon, and these are logs, sawnwood, veneers, plywood and parquets. From 2009 to 2014, a total of 7,281,710 m$^3$ of these products, in varying proportions, were produced and exported to various countries in the world.

Intra-African trade. From 2009 to 2014, the total intra-African trade on wood products from Cameroon was 5.33% of global total export volume, which was equivalent to 388,450 m$^3$ (Table 1). Further analysis of the exported volume of wood products indicates that this was made up of sawnwood (65.6%), logs (18.7%), plywood (9.7%) and veneers (6.0%). Over the same period, Cameroon formally traded with 22 African countries: five countries in Northern Africa (Morocco, Tunisia, Libya, Egypt and Algeria), six in West Africa (Senegal, Gambia, Nigeria, Ghana, Togo and Côte d’Ivoire), five in Central Africa (Gabon, Equatorial Guinea, Republic of Congo, Democratic Republic of Congo and Central African Republic) four in Eastern Africa (Comoros, Kenya, Seychelles and Tanzania), and two in Southern Africa.
Promoting African integration through trade in forest products: Cameroon’s perspective

(Mauritius and South Africa) (Figure 1).

In terms of actual wood volumes imported from Cameroon into these African sub-regions during the same period, significant differences exist in the sub-regional distributions ($P=0.048$; calculated $F=3.047$; Critical $F=3.007$). Northern Africa led with 193715 m$^3$ (50%), followed by Western Africa 43%, Central Africa 4%, Southern Africa 3% and Eastern Africa 0.4%. This variation is associated with the quantity of different wood product categories, for instance, over 97% of logs go to Northern Africa (Table 1).

![Figure 1. Regional spread of Cameroon’s wood products exports to African sub-regions (number of countries per sub-region). Source: COMCAM](image)

<table>
<thead>
<tr>
<th>African sub-region</th>
<th>Number of countries</th>
<th>Logs m$^3$ (%)</th>
<th>Sawnwood m$^3$ (%)</th>
<th>Veneers m$^3$ (%)</th>
<th>Plywood m$^3$ (%)</th>
<th>Total m$^3$ (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Africa</td>
<td>5</td>
<td>0 (0)</td>
<td>560.52 (0.22)</td>
<td>4792.09 (20.62)</td>
<td>9015.45 (23.92)</td>
<td>14368.06 (3.70)</td>
</tr>
<tr>
<td>Eastern Africa</td>
<td>4</td>
<td>625.56 (0.86)</td>
<td>484.08 (0.19)</td>
<td>409.02 (1.76)</td>
<td>79.15 (0.21)</td>
<td>1597.81 (0.41)</td>
</tr>
<tr>
<td>Northern Africa</td>
<td>5</td>
<td>70696 (97.19)</td>
<td>109428.01 (42.95)</td>
<td>9795.66 (42.15)</td>
<td>3795.38 (10.07)</td>
<td>193715.05 (49.86)</td>
</tr>
<tr>
<td>Southern Africa</td>
<td>2</td>
<td>14.55 (0.02)</td>
<td>10598.85 (4.16)</td>
<td>976.08 (4.2)</td>
<td>222.37 (0.59)</td>
<td>11811.85 (3.04)</td>
</tr>
<tr>
<td>Western Africa</td>
<td>6</td>
<td>1403.9 (1.93)</td>
<td>133759.5 (52.5)</td>
<td>7267.15 (31.27)</td>
<td>24577.65 (65.21)</td>
<td>167008.2 (42.99)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>72740.01 (18.72)</td>
<td>254830.96 (65.59)</td>
<td>23240 (5.98)</td>
<td>37690 (9.70)</td>
<td>388500.97 (100.00)</td>
</tr>
</tbody>
</table>
The trends in the exports of these wood products are shown in Figure 2.

![Figure 2: Trends in the export of different wood categories (2009-2014). Source: COMCAM](image)

The trends show that wood exports from Cameroon dropped considerably for all product categories with the exception of plywood between 2011 and 2012 due to increased exports to China (Tieguhong et al., 2015). However, these total volumes do not indicate the final country destination of the products. Further analyses in the following sections show exports to different countries within Africa by product type, thus highlighting the extent of intra-African trade on logs, sawnwood, plywood and veneers between Cameroon and the rest of Africa.

**Intra-African wood flows from Cameroon**

**Logs.** From 2009 to 2014, about 3,499,560 m$^3$ of logs were exported from Cameroon to different continents of the world with the share to other African countries representing 2% (Tieguhong et al., 2015). The intra-African trade share of 72,740 m$^3$ went to seven African countries, with over 97% going to Morocco, Algeria and Tunisia. The remaining 3% were exported to Tanzania, Nigeria and South Africa (Figure 3).

**Sawnwood.** Between 2009 and 2014, about 3.45 million m$^3$ of sawnwood were exported from Cameroon with intra-African trade share of 7.4%, equivalent to 254,823 m$^3$. Out of this volume, 94.9% was imported by five countries: Senegal (51.9%), Libya (25.7%), Tunisia (11.2%), Morocco (3.5%) and Mauritius (2.6%). Another 13 African countries imported relatively smaller quantities of sawnwood from Cameroon during the same period (Tieguhong, 2016a) (Figure 4).

**Veneers.** Out of the 203,799 m$^3$ of veneers exported from Cameroon between 2009 and 2014, 11% or 23,240 m$^3$ went to 13 other African countries with the top five countries...
Promoting African integration through trade in forest products: Cameroon’s perspective

importing 82%. The top five countries included: Senegal (31%), Tunisia (21%), Egypt (12%), Morocco (10%) and Gabon 9.7% (Tieguhong, 2016a) (Figure 5).

**Plywood.** From 2009 to 2014, 86 011 m³ of plywood was exported from Cameroon with intra-Africa share of 29.7%. This intra-African share totalling 37,690 m³ went to 14 countries, with top five countries importing over 92% of the plywood: Senegal (64.4%), Equatorial Guinea (13.5%), Gabon (5.6%), Congo (4.8%) and Tunisia (3.9%) (Tieguhong, 2016a) (Figure 6).

![Figure 3. Tree log exports to African countries (m³) from Cameroon during 2009-2014 period. Source: COMCAM](image)

![Figure 4. Sawnwood export to countries in the African continent (m³) from Cameroon during 2009-2014 period. Source: COMCAM](image)
Figure 5. Veneer exports to African countries (m³) from Cameroon during 2009-2014 period. Source: COMCAM

Figure 6. Plywood exports to countries in Africa (m³) from Cameroon during 2009-2014 period. Source: COMCAM
Potential for integration of Africa through trade. It is widely recognised in literature that intra-African trade has enormous potentials to create employment, catalyse investments, foster economic growth, reduce poverty and enhance food and energy security in Africa (Adesina, 2015; Enakele, 2015). The key ingredient to achieving these being regional integration (Ayittey, 2010; UNECA, 2010; Nathan, 2013; UNCTAD, 2013; AUC, 2015 a&b). With respect to the forestry sector, an understanding of the dynamics of various forest product types at the country level could help inform the implementation of regional policies, treaties and conventions for effective African integration through trade. Therefore, generating data to fill gaps in knowledge on intra-African trade in wood products is seen as an important contribution to guide policy makers in formulating policies and strategies to encourage such trade by the forest-endowed countries with those that are less endowed (AfDB, 2018; Traore and Tieguhong, 2018). This is in accordance with the promotion of the integration of Africa’s maxim as stipulated in the African Continental Free Trade Agreement (AfCFTA) signed in Kigali in March 2018 and the Action Plan on Boosting Intra-Africa Trade (BIAT) endorsed by the African Union General Assembly in 2012 (Stuart, 2018).

Despite this recognition, many authors pinpoint that the African continent continues to trade very little with itself (7.5 to 13%) compared to other continents (Hartzenberg, 2011), requiring more strategic studies that generate recommendations to advance the regional cooperation and integration agenda (UNECA, 2010; UNCTAD, 2013; AUC, 2015 a&b).

Despite the wide geographical spread of forest products from Cameroon, to 22 other African countries, the low proportion of intra-Africa share at only 5.3% suggests that much still has to be done to increase the volume of trade among African countries. Some authors suggest that the poor intra-African trade could be linked to inadequate technologies to process wood products at competitive prices to meet the demand of African economies (Chipeta and Kowero, 2015; AfDB, 2018).

Promotion of intra-African trade in forest products. There is a growing political commitment and recognition by African leaders that economic diversification is needed to create jobs and sustain growth in Africa (AfDB, 2018; Traore and Tieguhong, 2018). By reason of its geographical position and the fact that there has been an increase in income and in the size of the middleclass in Africa over the past decade suggest a potential and ready market for regional trade in goods and services. This provides avenues for galvanising and improving financial, economic, infrastructure and technological efforts in overcoming obstacles at the continental level to practically promote and achieve the desired level of African integration (Adesina, 2015; Chipeta and Kowero, 2015). Therefore, boosting intra-African trade in all its ramifications is seen by the African Union and other development partners as one of the key opportunistic pillars to achieving the lofty objectives of regional integration as inscribed it the Abuja Treaty and the Kigali Declaration (Stuart, 2018). Moreover, by enhancing regional trade African countries will overcome the burden associated with exporting to distant markets (UNCTAD, 2013). For instance, a 2016 evaluation conducted by Trade Mark East Africa on the impact of non-Tarrif Barriers to trade in East Africa indicated that removal of key barriers had contributed to over 14% reduction in time taken to import goods from each East African country. It resulted in the reduction in the cost of transporting a 40-foot container from Mombasa to Kigali from US$ 6500 in 2011 to US$ 4800 by 2016. Evaluators estimated savings of about US$ 7 million on the Mombassa-Kigali route alone (Mwai, 2016).
Intra-African wood products exports from Cameroon. Based on official statistics, the total intra-African trade in all commodities reached $130.1 billion in 2011, representing only about 11.3% of African trade with the world (UNCTAD, 2013). However, the intra-African wood exports share of 5.3% from Cameroon to the rest of Africa does not include indirect and informal cross-border trade of Cameroonian wood products to countries such as Chad, Niger and Sudan (Koffi, 2005; Cerutti and Lescuyer, 2011; Eba’aAtyi, 2016). This was because there were no reliable statistics on this trade; a considerable part of it being illegal. For instance, estimates indicate that Chad alone imports about 150,000 m$^3$ of sawn wood from Cameroon annually, which when converted to roundwood equivalents makes for the second highest volume of wood exported from Cameroon to any single country in the world after China (Eba’aAtyi, 2016). In only six months, Eba’a Atyi (2016) estimated that about 27,000 m$^3$ of informal sawnwood were exported from the Southwest and Northwest Regions of Cameroon to Nigeria, which is more than double the 12,000 m$^3$ estimated by Cerutti and Lescuyer (2011). The increase may be explained by the improvement in infrastructure (roads and others), the increase in demand on the Nigerian side and a more peaceful situation in the region (Eba’a Atyi, 2016). Other reasons for such an increase include overall quadrupling of annual GDP growth rate (3.4 to 13.8%) in Chad between 2009 and 2015 and, a significant increase in urban populations and real estate investments (Geda and Kibret, 2001). By adding the informal cross-border trade of wood products to official figures, the intra-African trade share in total trade would increase appreciably. For instance, elsewhere in the Southern African Development Community (SADC) area, informal cross-border trade could amount to US$17.6 billion per year, representing 30 to 40% of total intra-SADC trade. Ugandan informal exports to the Democratic Republic of the Congo, Kenya, Rwanda, the Sudan and Tanzania represented $224 million or 83% of its total recorded trade to these countries in 2006 (UNCTAD, 2013).

Based on the above findings, UNCTAD (2013) concluded that substantial and thriving informal trade in Africa was an indication that intra-African trade was not as low as official statistics suggest. In this regard, improvements will require the simplification of customs procedures, multi-country strategies to fight against corruption should be put in place to facilitate legal trade, reduce transaction cost related to trade and encourage official registration of trade transactions.

It is not only Cameroon that exports wood products to other African countries, many other forest-endowed African countries do the same. For example, over the study period, the Democratic Republic of Congo (DRC) exported wood products to 11 countries (Mbangiwa, 2015) and the Republic of Congo to 21 other African countries (SCPFE, 2015; Koubouana, 2016). Such trade is in alignment with the Abuja Treaty on the establishment of African Economic Community (AEC) that was signed, ratified and/or deposited by all the countries. For instance, of the 54-Member States of the AU; 30 have signed, 9 have ratified/acceded and 9 have deposited the instruments of ratification of the Charter on Statistics (AUC, 2009). These efforts are also aligned with the objectives of the more recent African Continental Free Trade Agreement (AfCFTA) and the Action Plan on Boosting Intra-Africa Trade (BIAT) that promote the integration of Africa (Stuart, 2018).

It would appear that African countries trade among themselves in more processed wood than in logs, whereas Africa exports considerable volumes of logs to outside the continent and less so to other African countries. This has two implications: by increasing intra-African trade, we encourage more wood processing from
Africa and less trade in logs. Also, such trade in processed products make African countries earn much more from exports. This can be illustrated by the following example from the Democratic Republic of Congo.

In 2011, the DRC exported 192,760 m³ of wood products, out of which 6,226 m³ (3.23%) was traded with 11 other African countries. The country earned US$70,642,869 from these exports, out of which the export share earnings from African countries was US$3,404,986, equivalent to 4.82% of global exports value (Mbongilwa, 2015). The implication is that DRC earned an average of US$547/m³ on exporting to other African countries and US$360.5/m³ on exporting to countries outside Africa, suggesting that DRC gains about 52% more earnings by exporting to other African countries as compared to exporting to non-Africa countries. This can be explained as follows: most timber exports to countries outside Africa were largely on roundwood and sawnwood which were not highly priced and therefore, not very profitable to DRC as well as to other African countries. For instance, according to Tieguhong (2016b), calculations of volume/value indices for exported roundwood, sawnwood, plywood and veneers from Cameroon were US$ 283, 499, 548 and 1,318 m³ respectively. This means that Cameroon gets far less when roundwood is exported than when exporting veneers, giving the wood conversion factor of between 40 and 60% in Cameroon. Such a trade scenario is very bad for Cameroon because roundwood and sawnwood still account for over 95% of timber exported from Cameroon (Tieguhong, 2016a).

For three wood products (sawnwood, plywood and veneers) that are customarily produced in most timber producing African countries, the aggregate import and export values with countries outside Africa in 2014 for all African countries were US$ 3.3 billion and US$ 409.7 million, respectively, giving a trade deficit of about US$ 2.9 billion for the continent (Table 4).

The deficit will even be higher for secondary processed wood products (SPWP) such as wood furniture, builder wood, mouldings, cane and bamboo products and other SPWP that are produced and exported from Africa but are also imported in large quantities. For example, from 2006 to 2013, Cameroon was a net importer of wood furniture, builder wood and cane and bamboo products with a negative trade balance (trade deficit) of over US$ 19 million (Tieguhong 2016a).

Building regional integration on wood products trade. Forest products remain very strategic resource in ensuring regional trade and integration in Africa because nature has

![Table 4. Value of trade in sawnwood, veneers and plywood in Africa in 2014](http://faostat3.fao.org/download/F/FO/E)

<table>
<thead>
<tr>
<th>African Region</th>
<th>Sawnwood (US$) * 1000</th>
<th>Veneers (US$) * 1000</th>
<th>Plywood (US$) * 1000</th>
<th>Trade balance (Export-import) *1000 US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern</td>
<td>21459</td>
<td>871</td>
<td>6813.22</td>
<td>-111674</td>
</tr>
<tr>
<td>Central</td>
<td>1285</td>
<td>179790</td>
<td>45775</td>
<td>181027</td>
</tr>
<tr>
<td>Northern</td>
<td>3033</td>
<td>1356</td>
<td>9696</td>
<td>-2849312</td>
</tr>
<tr>
<td>Southern</td>
<td>8339</td>
<td>6962</td>
<td>3369</td>
<td>-103837</td>
</tr>
<tr>
<td>Western</td>
<td>2984</td>
<td>87817</td>
<td>29655</td>
<td>-9553</td>
</tr>
<tr>
<td>Africa</td>
<td>37600</td>
<td>276796</td>
<td>95308.22</td>
<td>-2893349</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations from http://faostat3.fao.org/download/F/FO/E
made it that some parts are forest endowed and others are forest deficient. For instance, most of the countries (Morocco, Tunisia, Egypt, Libya, Chad, etc.) that import significant volumes of wood from Cameroon have less than 10% of their land area under forest cover. Also the 12 least forested countries in Africa (Algeria, Burundi, Comoros, Djibouti, Egypt, Ethiopia, Lesotho, Libya, Mauritania, Niger, Tunisia, Western Sahara) with total African forest cover of just about 1.5% but account for over 26% of the African population (Nair and Tieguhong, 2004). This indicates that the wood needs of many people in these countries must come from elsewhere and probably from more forest endowed countries such as Cameroon under well-developed intra-African trade arrangements or from other continents at higher costs.

Ghana appears to be taking the lead in ensuring intra-African as well as intra-REC trade in wood products. For instance, in 2015, the major markets for Ghana’s wood products were Asia (59%), Africa (19%) and Europe (15%) (ITTO, 2016a). For all wood products exported, African markets accounted for 67,950 m³ valued at Euro 26.93 million with the Economic Community of West African States (ECOWAS) countries accounting for the largest share (82%) of the sales to African countries. Togo, Nigeria, Niger, Senegal, Burkina Faso and Benin were the major ECOWAS countries that traded with Ghana and 2015 imports by these countries increased to about 10% compared to 2014 (ITTO, 2016a). The promotion of African integration through trade in wood exports requires that countries overcome several obstacles such as poor state of road, railway and trade infrastructure, lack of coordination of macro policies, divergent legal/regulatory frameworks and multiplicity of inconvertible currencies (Chipeta and Kowero, 2015; Erling et al., 2016; AfDB, 2018).

CONCLUSION
This paper provides guiding information on Cameroon trade with other African countries with focus on wood products. The geographic spread of wood products exports from Cameroon to 22 other African countries in all the five African sub-regions provide strong evidence of integration, albeit low trade volumes. It could be argued that this study, together with similar one, can facilitate development of national and regional policies that can enhance intra-regional trade transforming illegal trade to legal trade in these products, and promoting the integration of markets. In this light, the importance of ensuring that policy decisions are backed by data (trends, trade flows in volume and values and by product categories) cannot be overemphasized. Along the same lines, some recent authors (Chipeta and Kowero, 2015; Erling et al., 2016) buttress that Africa needs to cultivate a conducive environment for sustainable production and effective marketing systems that include favourable policies and infrastructure for legalizing such trade, and in ways that its actors can be better organized and regulated.

Such decisions can lead to improving the wood-based industry as well as promoting intra-African trade in wood products that cumulatively will contribute to creating a continental economy that strengthens each member country and ultimately create a prosperous and industrialised Africa that is in line with the African Union Agenda 2063.

RECOMMENDATIONS
In order to promote and substantially increase the potential benefits of intra-African trade in wood products, Cameroon and other African countries’ efforts should be geared at policy interventions that could increase the share of wood products imported by the less forest-
endowed African countries. These interventions could, among others, include:

- setting up a joint system for better collection and processing of timber trade statistics between customs, trade and forestry administrations;
- harmonizing the legal and regulatory frameworks for timber trade with other forest-endowed African countries;
- promoting the implementation of tenets of AfCFTA and BIAT on trade facilitation and free movement of goods and people for regional integration;
- establishing networks with African wood importing countries for better understanding on existing and future intra-African trade opportunities.

ACKNOWLEDGEMENTS
The authors thank the African Forest Forum (AFF) that commissioned a larger study from which this paper is extracted, and also the Swedish International Development Cooperation Agency (Sida) for funding the project entitled “Strengthening Sustainable Forest Management in Africa” through which data for this paper were collected. Also thanks go to anonymous reviewers for insightful comments that helped in shaping this paper.

STATEMENT OF NO-CONFLICT OF INTEREST
The authors declare that there is no conflict of interest in this paper.

REFERENCES


Cerutti, P.O. and Lescuyer, G. 2011. The domestic market for small-scale chainsaw milling in Cameroon: Present situation, Opportunities and Challenges. CIFOR

Tumuhimbise, C. 2013. Africa’s vision for trade in services. Regional Meeting on promoting services sector development and trade-led growth in Africa, organized by UNCTAD in collaboration with the African Union Commission (AUC) and the UN Economic Commission for Africa (UNECA) and in partnership with the International Organisation of La Francophonie. Addis Ababa, Ethiopia, 12-13 September. 8 pp.