

# Assessing the Performance of Large-scale Logging Companies in Countries of the Congo Basin

Dieudonne Alemagi<sup>1</sup> & Daniel Nukpezah<sup>2</sup>

<sup>1</sup> Faculty of Forestry, University of British Columbia, Vancouver, BC, Canada

<sup>2</sup> Department of Environmental Science, Wisconsin International University College, Ghana, Accra, Ghana

Correspondence: Dieudonne Alemagi, Faculty of Forestry, University of British Columbia, 4612-2424 Main Mall, Vancouver, BC, Canada. Tel: 1-604-822-6092. E-mail: dalemagi@yahoo.co.uk

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## Abstract

This article critically reviews the socio-economic and environmental performance of large-scale logging companies operating in countries endowed with the dense tropical rainforest of the Congo Basin in Central Africa and offers possible solutions to problems identified. After independence, these countries formulated a series of strategies to attract foreign investment in the large-scale logging industry. Recently, while a plethora of policies and regulations have been designed to advance sustainable forest management in these countries, the sustainability of this industry has been brought into question in light of the impoverish state of local forest-dependent communities. Thus, the purpose of this paper is to examine the regulatory framework of this industry in the developing world, as well as assess their performance with a particular focus on six countries where the forests of the Congo Basin are concentrated in Central Africa.

**Keywords:** socio-economic and environmental performance, large-scale logging companies, dense tropical rainforest, Congo Basin, Central Africa

## 1. Introduction

The policy of trade liberalization in many countries endowed with the dense tropical rainforest of the Congo Basin has created enormous opportunities for large-scale logging companies (concessionaires). Soon after independence in the early sixties, most of these countries instituted favorable policies and tax reduction schemes to attract foreign investment. As a result, timber production and other related forest products by large-scale logging companies have grown rapidly in these countries. These companies are expected to contribute to the socio-economic development of local communities in which they operate and promote sound environmental management practices. The objective of this paper is to examine the outcomes of corporate social responsibility and environmental management initiatives formulated by large-scale logging companies operating in countries endowed with the forests of the Congo Basin. The paper proceeds as follows. In the next section, we provide fundamental background information to the problem by describing the general regulatory framework of the less developed world vis-à-vis large-scale logging companies. The performance of these companies in six countries which are home to the forests of the Congo Basin is then examined. In the penultimate section, we proffer possible solutions to problems identified and conclude with a brief discussion of the salient points.

## 2. The Policy Framework Governing the Logging Industry in the Developing World

Although most developing countries have adequate legislation governing logging operations, implementation of this legislation is inadequate. This inadequacy coupled with under-resourced government agencies provides little incentive for logging companies to enable them improve the level of their environmental performance. The World Bank (2006) captures this dilemma in the following passage:

“Forest crimes including illicit activities such as illegal logging, illegal occupation of forestland, woodlands arson, wildlife poaching, encroachment on both public and private forests, and corruption is particularly troubling in developing countries. Forest crime in these countries largely results from weak governance and subsequent poor law enforcement in the forest sector”.

Furthermore, Damania (2002) argues that due to weak regulatory enforcement that stems from corrupt practices and a culture of impunity, environmental monitoring in developing countries remains a major problem. According to Innes (2010), in most tropical countries of the less developed world where all native forests are in

theory protected, ineffective regulatory enforcement or even collusive corruption have contributed to illegal logging practices. It is argued that governance indicators (like the rule of law, control of corruption, and political instability) that promote sustainable forest management is generally weak in high forest countries or International Tropical Timber Organization (ITTO) producer countries (Samjee & Davis; Molnar et al., 2010) located in developing countries. Hence, abject poverty continues to persist in most of these countries or regions (see Figure 1).

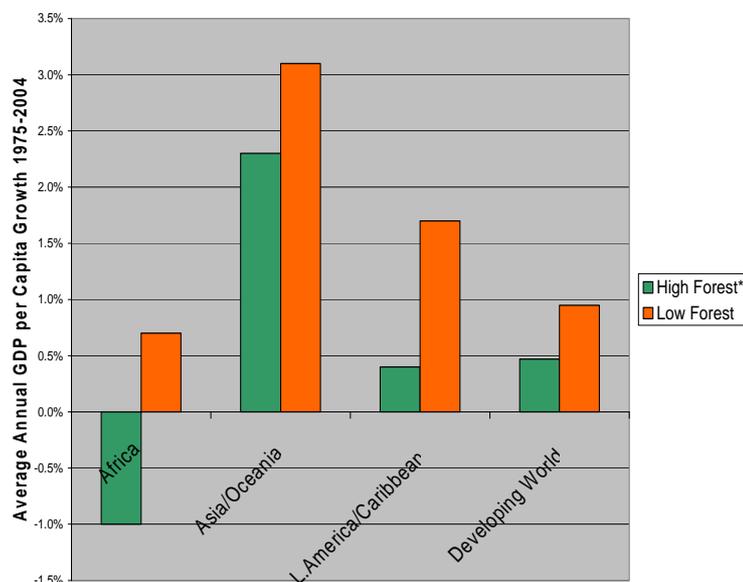


Figure 1. Average annual GDP growth of high forest countries versus low forest countries

Source: Samjee & Davis, 2007; Molnar et al., (2010)

In Africa, the Rainforest Foundation and Forests Monitor (2007) explain that oftentimes, the forest concessions system has failed to deliver sustainable conservation and management. They argue that evidence from regions of Africa has shown that allocating forest rights to industrial logging mostly leads to large-scale deforestation with little socio-economic benefits being generated at the local level. Within the Asian context, Dauvergne (2001) supports the foregoing thesis positing that concession-based forestry – the allocation of forest rights to large-scale logging companies- in Southeast Asia and the Pacific is unsustainable and has led to the annual disappearance of at least 1.5 million hectares of forest in Indonesia. In another similar example, it is reported that during the late eighties through until the late nineties, commercial logging in Cambodia was politicised and helped maintain the military regime of that country (Ghee & Valencia, 1990; Hurst, 1990; Vitug, 1993; Broad & Cavanagh, 1993; Broad, 1995; Bryant, 1997; Le Billon, 2000).

In Latin America, the situation is fundamentally the same like most developing countries. In Honduras for example, due to poor governance of forests and the resources therein, illicit timber production by logging companies is about 75 to 85% (about 125,000 to 145,000 m<sup>3</sup>) of the total annual hardwood production, while in Nicaragua, it is estimated to account for half (30,000 to 50,000 m<sup>3</sup>) of the total annual hardwood production and 40 to 50% (110,000 to 135,000 m<sup>3</sup>) of the softwood production (Del Gatto, 2003; Alcocer Lopez, 2003; Richards et al., 2003; Alemagi & Kozak, 2010).

It is against the backdrop of the ideas submitted in this section of the paper that the following discussion examines in greater detail the performance of large-scale logging companies in six countries that are endowed with the rainforest of the Congo Basin. Each case study is examined in turn.

### 3. Case Study

#### 3.1 Case Study # 1: Cameroon

Cameroon's dense tropical rainforest of the Congo Basin is estimated at 19,631,000 hectares (Mbile et al., 2008) and the country is ranked the world sixth largest exporter of tropical woods and the leading producer of these

woods in Africa (Nguemdjom, 2006). Cameroon's forestry sector makes a significant contribution to Cameroon's total export base. As Lebedys (2004) explains, between 1990 and 2000, timber-based forest products accounted for 19.8% of Cameroon's exports. Cameroon's forestry operations employ between 45,000 and 70,000 people and output from these operations accounts for more than 10% of the country's GDP (Ameriei, 2005; Alemagi & Kozak, 2010; Alemagi, 2010; Alemagi, 2011).

Large-scale logging operations remain the dominant business model in Cameroon's forest sector (Alemagi & Kozak, 2010). These operations occupy about 63% of the country's productive forestland (Kozak, 2009) and accounted for about 3 % of the country's GDP in 2004 (Karsenty, 2007; Alemagi & Kozak, 2010). Furthermore, these enterprises employ about 13,000 people (Karsenty, 2007). With regards to forest certification by these enterprises, Cerutti et al., (2008) note that by mid-2008, the total area of logging concessions belonging to the seven certified large-scale logging enterprises in Cameroon was about 560,000 hectares.

Despite the foregoing contributions and importance, large-scale logging operations in Cameroon have also been associated with adverse environmental and social impacts especially within many local communities. As a means of promoting corporate social responsibility and sound environmental management, these operations are obliged to compensate indigenous people. As Kozak (2009) explains:

"Large-scale logging companies or concessionaires in Cameroon and other countries with high forest cover in the Congo Basin must agree to abide by sets of guidelines (cahier des charges) which detail their environmental and social obligations in exchange for their rights to harvest the forest."

Notwithstanding the aforementioned mandatory stipulations, adequate compensatory schemes have rarely been granted to indigenous people. For example, basic social amenities like good roads and quality housing remain fundamentally lacking in many local communities located in the neighbourhood of forest concessions operated by these companies. Additionally, employment opportunities are also limited within these communities. As Alemagi (2011) explains:

"During field visits to the Southwest Region of Cameroon in March 2009, it was also witnessed that although two large-scale forest products companies controlled logging concessions in eight communities, neither actually operated sawmills in the communities, implying that they provided little in the way of local employment".

Furthermore, the government has been lackadaisical in enforcing legislation governing the operations of its logging industry. It is reported that forest management plans in Cameroon are fundamentally flawed and logging companies are currently taking advantage of these plans (Clough et al., 2008). From an environmental point of view, ecological degradation remains a common practice in most logging concessions. Many have argued that illegal logging is endemic in these concessions (Amariei, 2005; Clough et al., 2008; Alemagi & Kozak, 2010). Large mammals like gorillas, chimpanzees, and elephants also face pressure from logging operations as a result of habitat destruction in the South Region of Cameroon (Ndikumagenge, 2010).

As previously explained, about 63% of Cameroon's productive forestland has been awarded to logging companies. Consequently, there is now an acute shortage of land for local communities especially in the Littoral Region of the country where most productive forests have been assigned to large-scale logging companies (Alemagi & Kozak, 2010). These companies have also been unwilling to relinquish some of their land for possible allocation as community forests.

### *3.2 Case Study # 2: Democratic Republic of Congo (DRC)*

Estimated at 124.5 million hectares, the forests of the DRC are considered the largest in Central Africa (Nasi et al., 2006; Karsenty, 2007). Additionally, they represent approximately 50% of Africa's rainforests and about 10% of the world's tropical rainforests (Kata, 2007). Karsenty (2007) further notes that timber emanating from these forests amounted to \$ 3.85 million in 2005.

As of November 2005, logging concessions in the DRC (Table 1) covered about 20.4 million hectares (Karsenty, 2007) and in 2000, the sector provided employment to about 6,000 people (Karsenty et al., 2003). Karsenty (2007) asserts that large-scale logging companies or concessionaires are obliged to fund social projects (like the construction of roads, schools and hospitals) within local communities. From an ecological point of view, concessionaires are responsible for forest and wildlife management within their concessions and are mandated by law to prepare a management plan for this purpose (Karsenty et al., 2008). Forest certification has been initiated in the DRC and it is reported that by 2006, approximately 1, 440 869 hectares of forests in the DRC was certified according to the Forest stewardship council (FSC) certification scheme (Nasi et al., 2006; Karsenty, 2007).

Despite the aforementioned contributions, poverty and armed conflicts are omnipresent in several local communities that accommodate concessionaires in the DRC. For instance, according to the Rainforest Foundation and Forests Monitor (2007), local communities who have witnessed timber exploitation within forests in their localities are poor, faced health issues, have been marginalized, and have experienced an erosion in the integrity of their cultures. Additionally, Barume (2007) argues that hiding behind the various rebel factions, concessionaires in the DRC have extracted thousands of cubic metres of timber. Karsenty (2007) contends that corruption has served to underpin these illegal practices and *ad hoc cahiers des charges* have been used for years to regulate these practices, as well as the social obligations of these companies.

Table 1. The DRC Forested land use regime gazetted for production, under management plans, and FSC certification (Adapted from Nasi et al. 2006 and Karsenty, 2007)

Forested land use regime	Area (ha)
Land area	226 705 000
Dense forest area	124 566 000
Production forests	87 000 000
Area allocated as logging concessions as of 2005	20 400 000
Area with designed forest management plans	19 359 278
Area under FSC certification scheme	1 440 869

Concessionaires in the DRC are involved in illegal logging with most of the illegal timber being transported and exported in neighbouring countries. For example, according to Barume (2007), most of the timber logged illegally from the DRC is exported via the Kenyan port of Mombassa. Conflicts also prevail between logging companies in the Central Province of the DRC largely as a result of poorly assigned boundaries between forest concessions (Kata, 2007). In this same Province, other fundamental reasons fuelling conflicts between concessionaires and local communities have been identified as follows (Kata, 2007):

Concessionaires not providing compensatory packages to communities for damages inflicted on their crops during logging operations;

Slash and burn farming practices in forest concessions and the production of wood charcoal by communities;

Concessionaires refusal to fund alternative livelihood projects in local communities;

Customary heirs to forest concessions often question or challenge contracts signed by their deceased parents and concessionaires.

### 3.3 Case Study # 3: Central African Republic (CAR)

Forests in the CAR occupy approximately 22 million hectares while logging concessions- mostly owned by European companies- occupy an area of about 3.4 million hectares, employ approximately 4,000 workers, and contributed \$10 million of fiscal revenue in 2005 (Karsenty, 2007). Forestry law mandates the construction of local wood-processing units for timber processing but log production and exports are still common practices with total exports being estimated at 217700 cubic meters in 1999 (Forests Monitor, 2006a).

Corporate social responsibility and sound environmental management practices remain a fundamental obligation of large-scale logging companies in the CAR. As Karsenty (2007) reports, *cahiers des charges* constitute an important element of forest management plans that are prepared by the forest authority in the country. These *cahiers des charges*, the author notes, include provisions for basic social amenities like the construction of health care facilities, school, and roads. As of 2006, an estimated area of 2,993,954 hectares of forests was under the process of being managed in the CAR using a forest management plan (Nasi et al., 2006; Karsenty, 2007).

In recent years, however, many of the large-scale logging companies operating in the CAR have caused devastating impacts on the forests and the local communities. For example, Forests Monitor (2006a) reports that these companies have undermined the traditional and social fabrics prevailing in these communities. Additionally, because employees of these companies live together in large numbers, there has been a significant rise in the health and social issues including the absence of sanitation and social cohesion, infectious diseases, and alcoholism (Forests Monitor, 2006a). Uptake of forest certification is absent in CAR. As Marx and Cuypers (2010) explain, by 2010, no forest was certified in the CAR.

From an ecological point of view, logging operations facilitates poaching as poachers and settlers use roads constructed during these operations to serve their interest. Forests Monitor (2006a) establishes that poaching has led to a significant decline in the wildlife population especially in the Lobaye region where logging concessions are mostly concentrated in the CAR. The CAR is also faced with significant rates of deforestation (Marx & Cuypers, 2010). Besides this, the adverse impacts of selective logging have been observed in the country. As Forests Monitor (2006a) explains in the following passage, selective logging inflicts enormous damages to surrounding trees thereby causing a significant lost in biodiversity.

“Selective logging leads to large areas of forest being opened up as companies go deeper into the forest in search of the best timber. Sapelli, Ayous and Sipo are the main species logged but, because of the damage caused to surrounding trees, some estimates suggest that selective logging in fact damages as much as 30% of the forest in CAR”.

#### 3.4 Case Study # 4: Republic of Congo

The total forest area in the Republic of Congo is about 25,914,000 hectares (Table 2) and logging concessions represent about 50% of the forests (Nasi et al. 2006; Karsenty, 2007). Karsenty (2007) reports that large-scale logging enterprises in the country provide employment to approximately 6500 people, contributed about \$20 million of fiscal revenue in 2005, and accounted for about 5% of the country's GDP in 2004. In the Republic of Congo, large-scale logging companies are legally obliged to engage in best environmental management practices, as well as contribute to the development of local communities that accommodate their operations (Karsenty et al., 2008). Contained in the *Cahiers des charges*, Karsenty (2007) points that these obligations include the construction of bridges, food storage houses, schools, and the provision of essential equipment for forest management, health care, and transportation. Importantly, this author also notes that these companies are often requested to pay premiums to government officials who are on duty in regions where their logging concessions are situated. By 2006, Nasi et al. (2006) report that forest management plans were developed for an estimated forest area of 3,088,253 hectares in the country while 370,160 hectares of forests was FSC certified (Table 2).

Table 2. The Republic of Congo forested land use regime gazetted for production, under management plans, and FSC certification (Adapted from Nasi et al., 2006; Karsenty, 2007)

Forested land use regime	Area (ha)
Land area	34 150 000
Dense forest area	25 914 000
Production forests	12 000 000
Area gazetted for exploitation as of 2006	10 000 000
Area with designed forest management plans	3 088 253
Area under FSC certification scheme	370 160

The proliferation of the Republic of Congo's large-scale logging enterprises, however, has also had deleterious ecological and socio-economic impacts. Ecologically, animal species have been negatively impacted by operations of these enterprises. As Rodgers and Sommerville (2007) explain: “The consumption of bushmeat by forestry workers is usually unsustainable. A study conducted in 1999 in one logging camp of 648 people in the Republic of Congo reported an annual harvest of 8251 animals, equivalent to 124 tons of meat. Not only does this level of hunting leads to local extinction, but the mammals that are being hunted play a key role in forest regeneration”.

Cases of illegal logging practices by companies have been cited in the Republic of Congo (WRM, 2002). More to the point, in 2002, the World Bank estimated that illegal timber trade was estimated to cost the Republic of Congo \$4.2 million (Thornton, 2005). From a socio-economic point of view, unemployment and abject poverty are also pervasive problems in Aboriginal communities that host large-scale logging companies in the Republic of Congo (WRM, 2002).

#### 3.5 Case Study # 5: Gabon

Gabon is one of the countries situated in the Congo Basin, with approximately 20.6 million hectares of forests (Table 3) representing 80.2 % of the total land area (Mayaux et al., 1998; Atyi, 2004). The timber industry

employs about 28% of the active population (Atyi, 2004) and contributed about 6.4% of the country's GDP in 2005 (OdysseeDéveloppement, 2005; Karsenty, 2007). Regarded as the highest exporter of tropical wood (1.5 million m<sup>3</sup>) among countries of the Congo Basin, royalties collected from Gabon's timber sector was about \$50 million in 2004 (Karsenty, 2007). While the forestry code stipulates that starting in 2012, 75% of the country's logs will be processed locally before exportation, the current Gabonese president introduced in November 2009, a log export ban policy that has been enforced (Jansson, 2010). As of 2004, about 11 million hectares of Gabon's forestland (Table 3) had been granted to 221 European (especially French) large-scale logging companies (Atyi, 2004). By 2006, approved forest management plans were used to manage about 2.8 million hectares of these forestland and approximately 4.8 million hectares of these forests (Table 3) were also certified by this same year (Nasi et al., 2006; Karsenty, 2007).

Table 3. Gabon's forested land use regime gazetted for production, under approved management plans, and certification schemes (Adapted from Mayaux et al., 1998; Atyi, 2004; Nasi et al., 2006; Karsenty, 2007)

Forested land use regime	Area (ha)
Land area	25 767 000
Dense forest area	20 600 000
Production forests	19 000 000
Area allocated as logging concessions as of 2004	11 000 000
Area with approved forest management plans	2 805 242
Area under certification schemes	4 800 000

In exchange for their logging rights, large-scale logging companies are mandated by law to provide social amenities to local communities, as well as engage in environmentally friendly production processes. Provisions for these socio-economic and ecological obligations are contained in the *cahiers des charges*. Specifically, as Karsenty (2007) notes, *cahiers des charges* include provisions to remit the local populations with a payment of \$2 per m<sup>3</sup> of logs felled within concessions located in the vicinity of such populations.

Large-scale forest exploitation in Gabon has also had negative socio-economic and ecological impacts on host communities. Since the 2002 fiscal reform which increased the taxation pressure on the logging companies, Karsenty (2007) contends that some have drastically decreased their socio-economic contributions to local communities. To this end, it reported that poverty is still common in some local communities in Gabon (WRM, 2001).

It is argued that logging in Gabon is selective but not sustainable as logging of Okoumé trees (high value tropical species) results in lower quality timber in the long run (WRM, 2001). WRI (2001) further maintains that apart from contributing to an increase in the hunting and trade of bushmeat which could lead to wildlife extinction, logging also promotes soil erosion, as well as pollution through the use of chemicals employed to treat wood.

Illegal logging practices are also common in Gabon. The World Bank estimates that the country has lost about \$10.1 million as a result of these illicit practices (Thornton, 2005). China is the greatest importer of Gabon's wood and many have alleged that illegal exports to china are estimated at 70% of the country's total exports (Hewitt, 2002; Thornton, 2005). Furthermore, it is argued that China's influence in the country's timber sector promotes "flagrant disregard for the law," as taxes are not paid on 60% of forestland allocated as logging concessions (Hewitt, 2002; Thornton, 2005).

### 3.6 Case Study # 6: Equatorial Guinea

The dense tropical rainforest of the Congo Basin in the Equatorial Guinea is estimated at 1.8 million hectares (Nasi et al. 2006; Karsenty, 2007). These forests are rich in Okoumé (*Aucoumeaklaineana*), that is widely used for plywood and veneers, and actively sought by Asian manufacturers (Karsenty, 2007). Almost all the country's forests have been accorded to concessionaires as the area occupied by their concessions was approximately 1.7 million hectares in 2001 (Karsenty, 2007). Timber emanating from these concessions is exported in the form of logs to Asia with exports estimated at 300,000 m<sup>3</sup> in 2004 (Karsenty, 2007). As of 2004, concessionaires in Equatorial Guinea provided employment to about 2,000 people (Lebedys (2004). They contribute about \$12 - 13 million in annual fiscal revenue for the state (Karsenty, 2007). Nasi et al. (2006) notes that by 2006, 54,990 hectares of forests in the country was in the process of being managed through the use of management plans.

While the prevailing forestry law mandates that concessionaires provide social infrastructure to the local population and engage in best environmental management practices (Forests Monitor, 2006b), unsustainable logging practices in Equatorial Guinea have been well documented. Three fundamental reasons have been identified to underpin these practices (Forest Monitor, 2006b): First, the brutal dictatorship of the current regime impedes the advancement of sustainable development operations since most concessionaires have difficulties operating without condoning the government. Second, the essential mechanisms to ensure that forestry practices are sustainable and socially equitable are fundamentally lacking. Third, increased industrial timber production is accompanied by unsustainable logging operations.

Given the level of ecological issues prevailing within productive forests in Equatorial Guinea, the International Monetary Fund (IMF) notes that forest resources of the Equatorial Guinea could face extinction by the year 2012 (Forests Monitor, 2006b). Illegal logging operations by concessionaires have been reported in Equatorial Guinea (Seneca Creek Associates et al., 2004; Thornton, 2005). China is the main market for timber originating from Equatorial Guinea. There are allegations that the maximum allowable cuts and concession sizes are not respected, and about 90% of the total harvest exported to China is illegal (Hewitt, 2002; Thornton, 2005).

#### **4. Possible Interventions to Problems Identified**

From this review, allocation of forest rights to large-scale logging companies has not been sustainable. Indeed, collusive corruption, ineffective regulatory framework, lack of forest certification, degradation and felling of non-economic trees and inadequate environmental and social obligations by large-scale logging companies are common trends in the Congo Basin. In order to have a more sustainable forest management model geared towards improved environmental performance and social responsibilities, we proffer the following recommendations:

Needless to say, there is the need to enforce existing regulations and to craft new regulations to enhance the performance of large-scale logging companies in the Congo Basin. As noted by Marquis et al. (2007), strong institutional forces operating within a host community shape both the focus and amount of corporate social action. Marquis et al. (2007) further posit that regulatory forces and community leadership and values play a role in shaping social and environmental responsibilities. To this end, there is the need for enforceable regulations and strong institutions in the countries of the Congo Basin in order to improve the performance of large-scale logging companies.

Furthermore, there is the need for greater transparency and oversight responsibility to curb collusive corruption by large-scale logging companies. It is also worth noting that prescription of the polluter-pays-principle, which requires polluters to bear the cost of pollution in the regulatory framework, could help militate against destruction of non target species. There is therefore the need for a regulatory framework that obligates logging companies to conduct a waste assessment of their logging residue. This is one sure way to deal with the problems of destroying non target tree species in favor of economic species.

Effective public policies by the countries of the Congo Basin can be of immense benefit to local communities where large-scale logging operations are undertaken. Public policies such as “profit repatriation control measures” could be particularly effective. Such a policy regulates the repatriation of profits accruing from logging activities in the host country and ensures a fraction of the profit is retained to improve the socio-economic lots of the host communities. Such a policy is important in militating against the abject poverty in logging prone communities. Additionally, forest certification by large-scale logging operations can contribute towards achieving the sustainability of large-scale logging operations considering the fact that less than 1% of forest concessions are certified in many of the case study countries of the Congo Basin. Forest certification can however be expensive. Group certification of large-scale logging companies is financially prudent and ecologically sustainable. Provision of incentive such as preference for license renewals given to large-scale logging companies that achieve forest certification can help to improve the certification rate.

#### **5. Conclusion**

This article has brought together information that demonstrates how large-scale logging corporations have performed in countries endowed with the dense tropical rainforest of the Congo Basin in Central Africa. The fundamental aim was to assess how these companies have responded to socio-economic and ecological issues within indigenous communities that have been forced to bear the adverse impacts of their operations. Information provided in the article suggests that few of these enterprises have completely embraced sound environmental management practices and corporate social responsibility initiatives. Clearly, most socio-economic and environmental commitments made by large-scale logging companies in countries of the Congo basin are unsupported claims. Thus, this article makes a clarion call to these countries to adopt and

implement the aforementioned recommendations as they will serve to improve the overall performance of these companies.

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