



ELSEVIER

Contents lists available at ScienceDirect

Forest Policy and Economics

journal homepage: www.elsevier.com/locate/forpol

Disclosure of corporate social responsibility in the forestry sector of the Congo Basin

Rui Colaço^{a,*}, João Simão^{a,b}

^a Universidade Aberta, Department of Social Sciences and Management, R. Escola Politécnica, 141–147, 1269-001 Lisboa, Portugal

^b CAPP - Centre for Public Administration & Public Policies, Universidade de Lisboa, R. Almerindo Lessa, 1300-663 Lisboa, Portugal



ARTICLE INFO

Keywords:

Corporate social responsibility
Congo Basin
Forestry sector
Disclosure
Environment
Social

ABSTRACT

The Congo Basin (CB) region is highly relevant in both environmental and social terms. Due to the various roles and meanings that forests play in the region, it becomes urgent to understand how forestry companies disclose their (alleged) corporate social responsibility (CSR) activities. This work aims at identifying which CSR themes are more often disclosed by companies, and verifying geographical patterns according to their headquarters location, in a region where studies on the subject are scarce. A grid of CSR themes enabled the analysis of the website contents of 37 forestry sector firms operating in the CB. Companies were divided in three geographical regions, according to the location of their headquarters: West, Africa, and Asia. The results suggest that the companies value timber certification and prefer to focus on disclosing environmental themes related to their operations. Education and health are the most disclosed themes, in line with contractual obligations. There is a clear relation between the disclosure and the geographical origin of the companies: Western companies disclose more than their Asian and African counterparts. The near-absence of disclosure around human and workers' rights by Asian companies is notorious.

1. Introduction

The second largest tropical rainforest in the world is located in the CB. It plays a fundamental role on the preservation of biodiversity and climate regulation by capturing atmospheric carbon dioxide and contributing to limiting global warming. Around 60 million people depend on this forest for their livelihoods, and it has a crucial social and cultural role for local populations and regional economies (de Wasseige et al., 2015). Despite having inherited good infrastructures from the colonial period and having huge reserves of raw-materials (Matti, 2010), the region is politically and economically collapsing. CB countries (Fig. 1) score low on human development index (UNEP, 2016): life expectancy is short, fertility rates and population growth are amongst the highest in the world, and illiteracy rates are significant. Besides, they are amongst the worst in terms of business environment (World Bank, 2017), with high indexes of hunger (von Grebmer et al., 2012) and corruption (Transparency International, 2016).

The forestry sector harvests a natural raw material – wood. Logging generates positive and negative environmental and social impacts, some of which are specific to the CB. The most frequently mentioned impact consists on the construction of logging roads. Such infrastructures generate direct and (mainly) indirect impacts. They damage

the forest cover, increase bush meat demand and facilitate access of poachers to previously remote locations (de Wasseige et al., 2014). The upsurge in the circulation of vehicles and people place challenges on the region, namely the emergence of new diseases, the supply of significant quantities of alcohol and toxic industrial products (e.g. glues) used as drugs, generating previously non-existent problems (Amaral, 2016).

Albeit relatively well preserved, the forest is threatened by the foreseen economic boom, large scale farming projects, and illegal wood extraction activities in the region (Defourny et al., 2011).

The timber industry is an important source of income and jobs for the CB and will be decisive for the future of the forests in the region (Brunner and Ekoko, 2000). This relevance may affect each country differently, as some of them (i) have considerable forest resources but an underdeveloped forest sector, such as Democratic Republic of Congo (DRC); (ii) abundant forest resources and an active timber sector, such as Republic of Congo, Gabon and southeast Cameroon; and (iii) scarce forest resources and a small but active forest sector, such as Central African Republic, Equatorial Guinea and south Cameroon (Ruiz-Pérez et al., 2005).

Perspectives of economic growth raise concerns over the role of companies in social development, sustainability of timber operations,

* Corresponding author.

E-mail addresses: rbcolaco@gmail.com (R. Colaço), joao.simao@uab.pt (J. Simão).

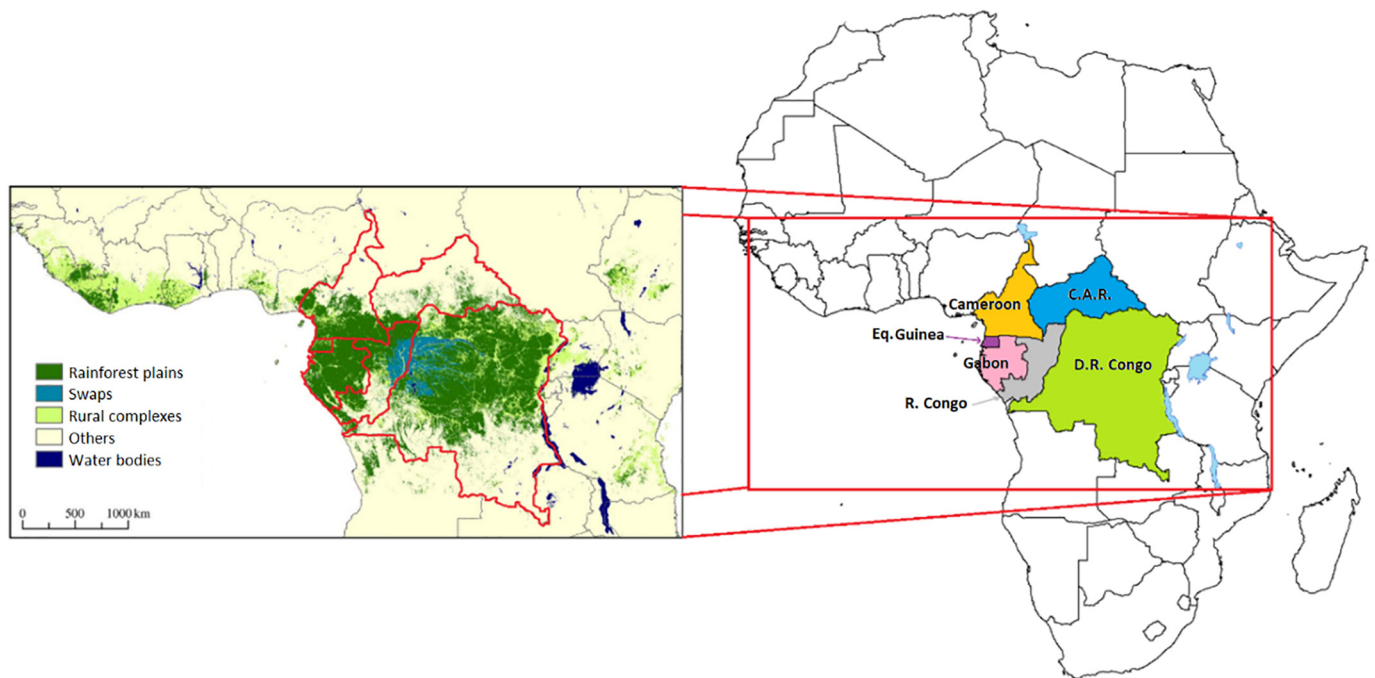


Fig. 1. Congo Basin Map (adapted from Mayaux et al., 2013).

and forest and environment protection. Some advocate that timber companies contribute little to solve regional development problems (e.g. Nasi et al., 2012). Where governmental structures and institutions are weak, companies play a determinant role in the socio-economic development and environment protection - often there is a Social Clause in the concession contract between forestry companies and the State. These contributions represent an essential element of CSR in Africa (Kühn et al., 2018; Visser et al., 2006).

Although there are numerous possible definitions of CSR (e.g. Dahlsrud, 2008), synthetically it refers to the positive impacts that companies have on stakeholders. Disclosure of CSR initiatives has become a management tool to attain social legitimacy for corporate operations, as well as to inform stakeholders, especially in environmentally-sensitive industries. Many companies justify their existence by disclosing their social and environmental performance and concerns.

Despite not necessarily reflecting effective implementation, studying CSR disclosure constitutes a method of analysing the efforts companies allegedly make to improve environmental, social and economic conditions in the regions where they operate. No consensual CSR standard exists for the forest-based sector (Toppinen et al., 2012). As an environmental-sensitive industry, forestry companies often specially focus their communication strategies on environmental issues in order to attain legitimacy to their economic activities (e.g. Garcia et al., 2017). Besides, their impact on local communities needs to be addressed given the socio-economic context in which they operate (e.g. Mikkilä and Toppinen, 2008).

This exploratory study aims to contribute to overcome the evident scarcity of literature on CSR in the forestry sector in the CB, and to provide hindsight on how differences in companies reflect on the way their communications to stakeholders are shaped, and what motivates the firms.

Since the Internet is ever more the preferred way to disclose CSR, the present study analyses the contents of the websites of 37 forestry companies active in the CB, in order to: i) evaluate the predominance of different CSR themes in corporate disclosure; ii) relate the contents with company origin.

The work is structured as follows: Section 2 presents a theoretical

framework, where the main concepts about CSR literature in the forestry sector are presented; the methodology is explained in Section 3; in Section 4, results are presented and discussed; Section 5 ends with the conclusions.

2. Theoretical framework

CSR is herein understood as an umbrella term (Blowfield and Murray, 2008): it refers broadly to the obligations towards investors, employees, consumers, communities, and the environment, encompassing different ways on how the relationship with the society is defined, managed and influenced.

Even if no theory consensually explains the behaviour of companies regarding CSR (Deegan, 2002), two aggregating reasons are usually mentioned in literature: business benefits and political economy. The first covers 6 main action areas (Weber, 2008): reputational benefits; improvements in human resources, (motivation, retention and recruitment of workers); cost reduction (efficiency gains); increasing sales and market share; risk management (bad press, boycott by consumers and NGOs); and long-term improvement of the non-financial performance. Nonetheless this work is theoretically grounded on political economy, since the social and geographic context and the nationality of the companies are considered to better characterise CSR disclosure in the CB forestry sector.

2.1. Political economy - stakeholder, legitimacy and institutional theories

In this approach, the company is considered an organism that implicitly enters a social contract with other members of its operation environment. Hence, the organization needs consent from its stakeholders. CSR disclosure (and activities) becomes a component of the approval and legitimacy building process (Holder-Webb et al., 2009): social and environmental disclosure influences the companies' perception by society and, thus, reputation can be discursively built.

The stakeholder theory states that companies should consider every stakeholder that may affect or be affected by the corporate objectives (Freeman, 1984). Companies should benefit those who have interests on them: shareholders invest financial resources, employees invest time

and intellectual capital, clients invest trust and loyalty, and communities provide a social network and education for future employees. Stakeholders are entitled to be informed on the social and ecological implications of corporate activities and the company benefits from demonstrating contributions to society (Deegan, 2013).

The legitimacy theory assumes the existence of a social contract between the company and society: companies need to legitimise their activities and legitimation benefits them. However, the need for legitimacy is not the same for every corporation, and disclosure is adjusted to the particular level of social pressure and the type of response required. Legitimacy depends on maintaining a mutualist relationship with moral obligations towards the stakeholders (Maignan and Ralston, 2002).

Even though both theories compete in the literature to explain CSR disclosure, they actually complement one another in explaining why organization managers adopt certain CSR disclosure strategies (e.g. Gray et al., 1995; Deegan, 2002). To wit, both theories try to answer a common ground question: how do companies seek legitimacy within a group of stakeholders to operate and develop their activities? Furthermore, as Holder-Webb et al. (2009:500) mention, “it is difficult to distinguish between the drivers and the implications of legitimacy theory versus stakeholder theory, as the target population according to both theories will be the community of individuals providing access to resources, or those in a position to enhance or diminish the firm's ability to access resources”.

A third explanatory theory, within the scope of economic policy, is the institutional theory. According to it, the cultural, political and socio-economic context shapes and pressures organisational structures, values, standards and actions, causing a process of homogenisation of action and disclosure. The institutional theory seeks to explain how managers integrate standards imposed on them by their context. Thus, an interconnection between the three theories (stakeholders, legitimacy, and institutional) to explain CSR disclosure by companies exists (Fernando and Lawrence, 2014).

The firms' nationality is, at the company-level, one of the most studied determinants, and positively related with corporate disclosure (e.g. Gray et al., 1995; Holme and Watts, 2000; Kolk et al., 2001; Newson and Deegan, 2002; Gjørberg, 2009; Kolk et al., 2010; Gamerschlag et al., 2011). This may be due to cultural, legal or interpretative factors of the meaning of CSR; or to the alignment with the stakeholders of their home country (seeking legitimacy). Hence, disclosure is shaped by the preferences of clients and sanctions of the countries they come from (Williams and Aguilera, 2008).

Understanding CSR in developing countries raises debate and questions. As a Western concept, mainly implemented by Western companies, its application in contexts with weak institutional environment, arbitrary law enforcement, inconsistent bureaucracy, lack of property rights security, and corruption, may raise suspicions (Jamali and Mirshak, 2007). Consequently, some authors (e.g. Blowfield and Frynas, 2005) question the effect of CSR initiatives on the socio-economic progress of developing countries. Simultaneously, multinational enterprises may maintain their legitimacy in developing nations even if they do not publish as much information as it would be required in their home countries, since legitimacy is not equally perceived by local audiences and by those in the company's country of origin (Newson and Deegan, 2002).

2.2. CSR in the forestry sector

Society expectations from companies vary across firms, region and sector, and CSR disclosure reflects those expectations (Fifka, 2013; Ali and Frynas, 2017). Companies in environmentally-sensitive industries such as mining, oil and gas, chemical, metal, electricity, water, textile and forestry, especially the ones that achieve good environmental performance, are the ones observed to disclose the most environmental information (e.g. Bewley and Li, 2000; Clarkson et al., 2008; Boiral

et al., 2017; Helfaya and Moussa, 2017), even when controlling for the firm's size and country (Garcia et al., 2017). Forestry has a crucial role in global sustainable development, due to its use of wood as a raw material and the impact on its surroundings – forests house biodiversity, complex ecosystems and, frequently, communities that rely on them for their livelihoods (e.g. Panwar and Hansen, 2007; Toppinen et al., 2016).

Despite the literature on CSR in the forest sector being abundant, it is mainly focused on selected countries or regions (e.g. Australia: Gordon et al., 2012; USA: Hansen et al., 2013; Europe: Liubachyna et al., 2017; Finland: Mäkelä, 2017a, 2017b) or on comparing the largest companies of the industry, which incidentally are mainly located in developed regions of the globe (e.g. Li and Toppinen, 2011; Li et al., 2014; Ranängen and Zobel, 2014). Only recently has attention grown for emerging or developing regions of the globe (e.g. Matilainen, 2013; Garcia et al., 2017; Lu et al., 2017; Tauszig and Toppinen, 2017), and there is still much need for research of factors influencing CSR disclosure of firms operating in immature economies (e.g. Ghazali, 2007; Belal and Momin, 2009; Haji, 2013; Kansal et al., 2014; Ali et al., 2017; Örtenblad, 2016; Jamali and Karam, 2018). Literature on forestry in the CB is especially scarce.

Some general trends regarding CSR in the forestry sector are identified. The existing studies generally approach CSR by either analysing dedicated reports or by means of interviewing key stakeholders of the industry. The findings reveal increased public scrutiny has been driven by a surge in consumption, namely in Brazil, Russia, India and China (Atyi et al., 2013), growing public awareness (Li and Toppinen, 2011) and, particularly, by stakeholders (Lacey et al., 2016). Companies respond by documenting performance in activities related to sustainable forestry management and accountability on emerging economic, environmental and social issues (Vidal and Kozak, 2008a). The global forestry sector has been implementing broad CSR and sustainability approaches, while adapting their social performance strategies to the profiles of the regions they operate in (Mikkilä and Toppinen, 2008; Vidal and Kozak, 2008a, 2008b). While mainly highlighting environmental CSR topics, social issues are being increasingly included (e.g. Li et al., 2014). Despite the perceived financial benefits of CSR adoption, literature provides different conclusions regarding the link between social/environmental performance and financial performance in the forestry sector (e.g. Hansen et al., 2013; Lu et al., 2017). Even though larger companies, or those with higher financial performance, tend to give more attention to environmental, communicational and risk management strategies, smaller companies are gradually getting involved in CSR and sustainability activities as well (e.g. Tauszig and Toppinen, 2017).

Although categorization structures classifying CSR activities, such as the Global Reporting Initiative (GRI), exist, none has been universally adopted (Toppinen et al., 2012). Besides, no single reference framework adapted to the forestry sector has been established, and different classification systems for CSR themes proliferate in the literature. For that reason, a grid of CSR themes optimized for the forestry sector was constructed. As a starting point, not only the works of Han and Hansen (2012) and Toppinen et al. (2012) were selected, which represent attempts to categorize the different CSR aspects to forestry, but also the literature review on the subject by Mikkilä and Toppinen (2008). The aforementioned were complemented by similar and less industry-specific works such as Welford et al. (2007), Blowfield and Murray (2008) and Sobhani et al. (2009), considered adequate for their integrity and comprehensiveness. The grid design is justified by these articles, considering the literature review on the several definitions of CSR and corporate sustainability by Montiel (2008) and the theoretical framework presented in herein; furthermore, the grid does not aim to enumerate all the themes existing in the literature, but to organize them comprehensibly and adequately to the forestry sector. From this theoretical framework, a grid with 54 CSR themes emerged (Appendix 1).

3. Methodology

To address the proposed research objectives, the contents of the websites of all forestry companies operating in the CB with functional websites in English, French, Italian or Spanish were studied.

3.1. Sample

The list of companies was compiled by consulting forest sector publications (e.g. Center for International Forestry Research, Global Forest Atlas, Global Forest Watch), other research studies, NGO databases (e.g. Forests Monitor, World Resources Institute) and others (e.g. Central African Forest Initiative, International Tropical Timber Organization). The websites were obtained through search engines such as Google, using the corporations' names as keywords. A total of 39 companies were found (Appendix 2), two of which were excluded because their websites were under maintenance during the data collection period (Spring of 2016): the Cameroonian Rapha Inc. SARL and the Congolese Groupe Blattner Elwyn. It is believed that all the major firms operating in regional forestry industry were included by this method. However, it was not possible to collect coherent and systematic information on the characterisation and size of the companies, since, often, such information is not disclosed. Nevertheless, a wide variety of situations exist: from stock market listed holdings, to family owned international companies, or smaller local companies.

3.2. The internet as a vehicle to disclose CSR

Massive access, and the development of web 2.0 and social media, made the Internet the preferred channel to disclose CSR (Capriotti, 2017), used by companies not only to inform and communicate with stakeholders, but also to manage perceptions and obtain legitimacy to carry out their operations (Castelló et al., 2016). Comparatively, the Internet has the advantage of being more accessible, synchronous and bidirectional, increasing the public exposure of contents. It is cost efficient and flexible, timely and easy to update, besides being versatile, quick, detailed, and with almost unlimited capacity and global scope (Bonsón et al., 2014).

3.3. The data

A website is understood as “A set of related web pages located under a single domain name” (oxforddictionaries.com). All the textual and video material, including any type of file accessible therein was studied. The documents analysed consisted generally in reports of varied nature (financial, environmental, health and safety, social responsibility, etc.) or other documents, such as press news, that had been published within the previous three years. All material hosted in the website itself or hyperlinked from it was considered as an integral part of it.

The unit of analysis consisted in all the textual material and video messages made available by the corporate (or secondary) websites of forestry companies with activities in the CB. The data were collected between April 25 and May 15 of 2016. The timeframe was the shortest possible so that the collected information was as much representative of a specific time as possible, given the susceptibility of websites of being constantly updated. The collected database contained a total of 1.24 GB of information.

The messages contained in the video material were not much more informative relatively to the written material, and therefore despite having been analysed, they did not reflect on the results of the study. Due to the variety of website styles and layouts, some companies concentrate their CSR information in a single page, while in other cases the information is dispersed in the website. All secondary websites to which the main corporate website forwarded the user were also considered, as long as the company's involvement was evident (e.g. foundations). When the websites presented multiple language versions, the ones

outside the expertise of the analyst were disregarded. In practical terms, this affected only the analysis of Vicwood Industry's online communications: its main website was in Chinese and thus overlooked, but its secondary website in English and Spanish, seemingly smaller in content, was considered instead.

3.4. Analysis

A systematic content analysis categorised textual materials according to a grid of themes, to standardise the analysis and reduce the comparative subjectivity (Flick, 2006). Considering the objectives of the work, the original 54 themes present in the first draft grid (Appendix 1) were further fused into fewer broader themes, in a way that: a) the themes would be adapted to the economic, social, cultural and environmental context of the forestry sector in the CB; b) inter-related themes would be grouped, in order to facilitate the categorization of information. Namely, themes that intimately connected or with overlaying definitions could be grouped into a single one. For instance, the themes “use of resources and energy” and “emissions, effluents and waste” were grouped into a single, more comprehensive theme: “management of resources and energy”. Following the principles of inductive content analysis, every time further modification and creation/omission of new themes took place, the content analysis would restart. For example, upon realisation that many companies understood activities of ensuring food safety as means of preventing bushmeat consumption, the definition of the theme “biodiversity” was modified to incorporate prevention of poaching. The result was a grid with 22 intuitive, easily operational and inclusive themes (Table 1).

In order to quantify qualitative data on each theme and company, a 5-point Likert scale was used, enabling the evaluation of CSR disclosure according to a relevance numeric scale (qualitative). Because the obtained data are quantitative but not continuous, its statistical treatment was not carried out (Jamieson, 2004). The scale was designed to indicate, ordinally, the degree of corporate involvement in each theme:

- “0” – “None”: Does not contain information;
- “1” – “Reduced”: Simple reference to the theme, with no detail;
- “2” – “General”: Presence of information about the theme, without presenting concrete activities. It may also contain recommendations for activities or objectives and intentions of engaging in specific activities;
- “3” – “Detailed”: Brief explanation of activities performed in the theme, with some detail;
- “4” – “Very Detailed”: Very comprehensive information about the activities, specifying how they were done or the results obtained.

The analysis was carried out as follows: while going over the material, every time a sentence or a group of sentences indicated corporate involvement in one of the CSR themes, it would be rated from 1 to 4. After analysing all content from a particular company, all unaddressed themes would be rated as 0. Below is an example of ranking the theme of health:

1 – “Objectives: (...) Social Infrastructures such as (...) health centres.”
ECOWOOD website

4 – “Olam CIB (...) developed and runs a hospital (...), and two further health centres (...). These serve nearly 900 CIB staff, their families and a diverse range of communities within the forest (...). The hospital has 42 hospital beds and together with the (...) health centres provides diagnosis and treatment for malaria, as well as pregnancy consultations and contraceptive advice, vaccinations, an HIV prevention and treatment programme, radiology, ultrasound, surgery, dental care and ophthalmologic care, all on a daily basis. Free mosquito nets were distributed among the community for malaria prevention and during antenatal visits, pregnant women receive free mosquito nets and medicine that helps prevent contracting the disease during pregnancy. (...) The CIB hospital

Table 1
CSR themes and respective scope.

CSR themes	Scope
Certification	Forest certification standards (FSC, OLB, etc.), social and environmental responsibility standards (ISO26000, SA8000, CSR catalogue, GRI, etc.), inspections and audits.
Workers' welfare and rights	Work environment issues and related conditions, such as offering housing and insurance to workers and their families.
Health and safety at work	Internal work conditions, such as safety and hygiene at work, professional training, and promotion of company culture.
Diversity	Diversity and equality, indigenous community's rights, impact of forest exploitation, and posture towards discrimination.
Client hygiene and safety	Safety of clients and consumers, such as usage of formaldehyde, warranties, fire retardant properties, etc.
Economic responsibilities	Legality of operations, ethics, code of conduct, antitrust, etc.
Corruption/Transparency	Promotion of transparency or reduction of internal or external corruption levels.
Direct support to the community	Support such as research, volunteering, arts, culture, politics, sports, religion, security, infrastructure, communication channels, local development. Excludes health and education.
Education	Promoting education, such as development of schools or offering school materials. Does not include professional training.
Health	Promoting health, such as construction of hospitals or clinics, medical support, medicine distribution or raising awareness about diseases and hygiene.
Charity/philanthropy	Financial contribution to CSR activities with which the firm is not directly engaged.
CSR partnerships	Partnerships in which the organization actively collaborates with a different entity with CSR objectives.
Stakeholder management	Direct references to stakeholder management and actions to understand stakeholders and communicate with them.
Human rights	Promotion of human rights (e.g. freedom of association, freedom of expression, child or forced labor, violence, malnutrition, abortion, property use rights, livelihood protection).
Fighting against poverty	Concerns with reducing poverty.
Forests protection	Protection of forests, including responsible forest management and low impact timber extraction.
Management of resources and energy	Promotion of a responsible use of materials, energy and water, such as recycling, water management, renewable energy, waste treatment and pollution.
Biodiversity	Wildlife protection, such as prevention of poaching and guaranteeing food safety.
Transportation	Road planning and management, transportation of timber, materials and people, especially aiming to reduce its impact in landscape, wildlife distribution and illegal poaching activities.
Sustainability	Guaranteeing timber extraction and ecosystem sustainability, environmental responsibility and commitment with sustainable development, such as reforestation activities.
Mitigation of climate change	Contribution to the reduction of greenhouse gas emission and capturing atmospheric carbon.
Origin and Traceability	Promotion of traceability or posture towards illegal logging.

and health centres received nearly 29,000 patients in 2013, of whom more than 8,000 were diagnosed with malaria and treated by health workers (...). Over 1,500 people were tested for HIV at the CIB clinic, health centres and during HIV field activities and those that tested positive have been offered long-term support and anti-retroviral drugs (...)."

OLAM website

3.5. Limitations

The approach is in line with the exploratory nature of the study. CSR in the forestry industry in Congo is poorly known, and thus it is fundamental to characterise the phenomenon and contribute to its better understanding. However, some limitations are present.

First, the content analysis was performed by a single analyst. Even though the analyst's knowledge about the reality being studied is considered sound, this method affects the reliability of the analysis (Milne and Adler, 1999).

Second, CSR is a social construction that has different meanings according to the cultural and geographic context (Gjølberg, 2009). The absence of a consensual model of systematic analysis led to the choice of a Westernised interpretation of CSR, which may have conditioned the analysis.

Third, some of the stakeholders do not benefit from this communication media. Illiteracy is a real problem in the region and Internet access is very limited (Tiani et al., 2015), leading to the exclusion of a significant part of the local communities. Therefore, it is possible that local smaller companies may prefer alternative means to disclose information to the surrounding communities.

Finally, when analysing company websites and sustainability reports, it is important not to forget that content analysis does not trace the connection between what is said and what is done. A good example of this kind of gap can be observed in a Greenpeace reference to one of the companies studied:

"In its company literature, the Dutch logger and timber trader Wijma has

made many claims about the environmental and social acceptability of its timber. However, Wijma not only buys from some of the most notorious logging companies in Africa, but is also itself involved in illegal logging in Cameroon."

Greenpeace, 2003

Nevertheless, it is essential to study CSR disclosures, since this type of communication is not innocent, in the sense that it does not merely reflect the existing, but also creates and shapes the reality it refers to (Cantó-Milà and Lozano, 2009). The published corporate disclosure contributes to shape the concept of CSR and produces a reality and a social world.

4. Results and discussion

The firms were grouped according to the geographic location of their headquarters: Western, Asian, and African companies (Appendix 1). Besides, as a guideline for discussion, CSR themes are divided between those of socio-economic and environmental nature, and certification, focusing on the results most relevant. The results of the analysis are summarized in Table 2.

In a general geographical analysis, Western companies are observed to disclose the most. From the 18 Western companies (17 European and one Canadian), only 3 are in the lower quartile, and 4 in the second quartile. Pallisco, Wijma and Danzer are in the highest. Disclosure levels for Asian and African companies are much lower. Similarly to other studies (e.g. Gray et al., 1995; Kolk et al., 2001), this suggests a relation between CSR disclosure patterns and geographical origin of the companies.

OLAM, from Singapore, with detailed disclosure on the majority of the themes, or COFABOIS, from Belgium, with almost non-existent CSR disclosure, constitute remarkable exceptions to the geographical trends. It is difficult not to relate OLAM's disclosing performance with its presence in the stock market, and its consequent need to avoid risks. When the aforementioned outlier is excluded, African companies are observed to disclose more on social and certification themes, whilst

Table 2
Disclosure by themes of CSR and by geographic region.

2a. CSR themes (1)	None (2)	Reduced (3)	General (4)	Detailed (5)	Very detailed (6)	% (4 + 5 + 6) (7)
Sustainability	4	4	6	12	11	78
Forests protection	6	5	9	5	12	70
Certification	9	3	5	5	15	68
Direct support to the community	6	6	7	10	8	68
Management of resources and energy	11	4	5	7	10	59
Education	13	3	2	7	12	57
Health	11	7	1	5	13	51
CSR partnerships	17	1	3	8	8	51
Biodiversity	9	9	5	3	11	51
Health and safety at work	14	5	1	5	12	49
Diversity	14	5	5	6	7	49
Stakeholder management	15	5	4	6	7	46
Economic responsibilities	10	10	6	3	8	46
Transportation	14	6	8	3	6	46
Origin and traceability	16	5	1	3	12	43
Workers welfare and rights	11	10	4	6	6	43
Mitigation of climate change	16	6	5	2	8	41
Client hygiene and safety	27	1	3	1	5	24
Corruption/transparency	23	6	5	1	2	22
Charity/philanthropy	28	2	3	2	2	19
Human rights	24	7	2	3	1	16
Fighting against poverty	22	9	3	2	1	16
TOTAL	320	119	93	105	177	46
2b. Geographical region						
West	95	64	52	56	129	60
Africa	148	38	27	28	23	30
Asia	77	17	14	21	25	39
Total	320	119	93	105	177	46

Columns 2, 3, 4, 5, and 6 reflect the number of web sites of firms evaluated with 0, “None”; 1, “Reduced”; 2, “General”; 3, “Detailed”; 4, “Very detailed”, respectively, for each one of the themes (2a) or for regions (2b). In column 7 the percentage value of the evaluations of columns (4 + 5 + 6) is shown.

Asian companies prefer environmental subjects.

The environmental themes, i.e. forests protection, management of resources and energy, biodiversity, transportation, sustainability, mitigation of climate change, and origin and traceability, are more

disclosed than socio-economic ones, and only a few companies are located below the diagonal in Fig. 2. This result may be due to a growing general trend for companies to disclose environmental themes throughout the last two decades (e.g. Albertini, 2014); and the specific

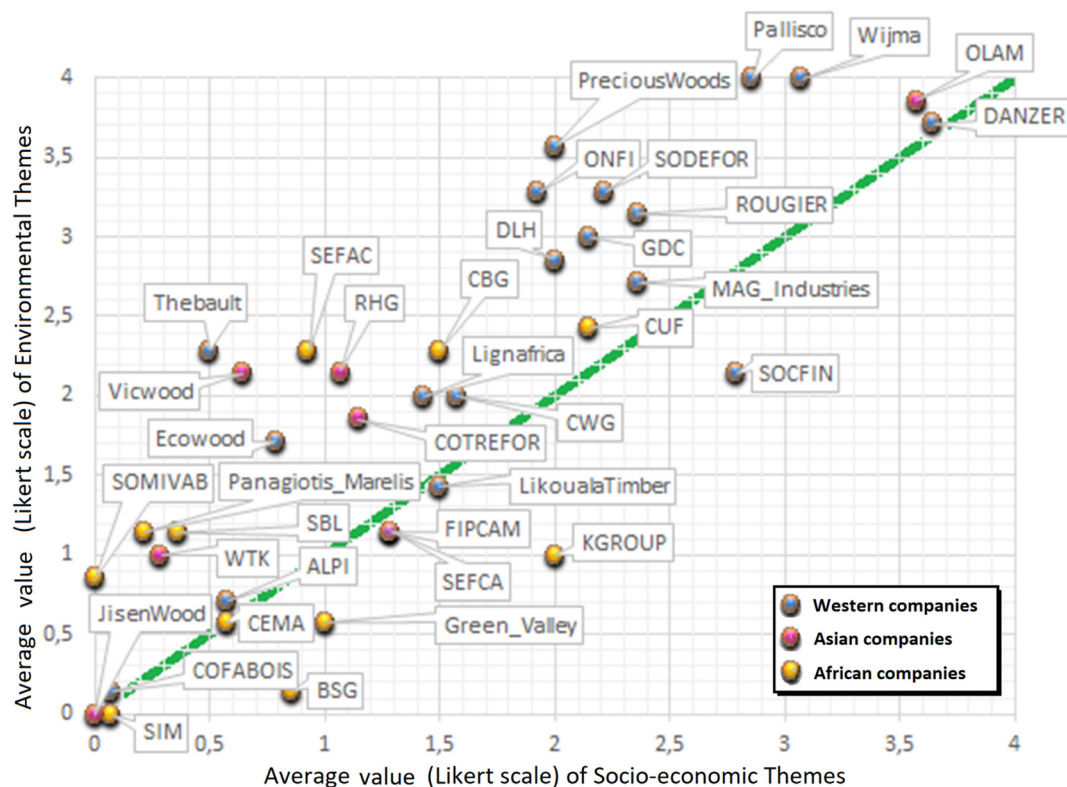


Fig. 2. CSR disclosure of socio-economic and environmental themes.

environmental sensitiveness of the sector, as well as the geographical context (e.g. Cormier and Magnan, 2015). The effect is the same for both reasons, disclosure occurs as a response to the growing environmental awareness, which has transformed the public, and particularly the consumers, into important stakeholders. Nevertheless, differences between environmental and social communications from African companies are of little significance. Companies seem to try to harmonise economic development with sustainability and environment protection, by communicating capacities to reconcile different stakeholders' requirements and alleging attempts to reduce the impact of economic activities on the ecosystems.

4.1. Certification

Certification systems are voluntary regulatory instruments that go beyond the legal applicable framework and are recognised for (i) contributing for a better environmental performance; (ii) promoting product quality; and (iii) fostering CSR (Jaung et al., 2016). On the instrumental side, they also allow for promotion and trading of the product in sensitive markets with a strong demand for certified products (Tuppura et al., 2016).

For example, the Forest Stewardship Council (FSC) uses business-case arguments to encourage companies to obtain certification:

“Forest owners and managers may want to become FSC certified to demonstrate that they are managing their forests responsibly. Along the supply chain, FSC certification can provide benefits such as access to new markets.”

FSC website, 2016

This is appealing to the companies:

“Certification offers an obvious economic interest by giving access to a growing market and by enabling to sell certified wood in line with the current fair-trade trend. [...] The certification process brings credibility to the company towards its partners (financial, clients...) and Project stakeholders, and proves its commitment to a permanent improvement of its practices.”

Lignafrika website, 2016

Certification and adoption of CSR standards are the most disclosed themes, with less than 25% omissions. The theme was broadly defined, including a large variety of standards and certifications. The most common amongst the studied companies were forestry-specific certifications, namely the FSC and *Origine et Légalité des Bois* (OLB), confirmed also by Nukpezah et al. (2014) for the Cameroones forestry sector. Furthermore, less specific certifications were identified, such as the Rainforest Alliance, alongside more general ones such as CSR catalogue, ISO 26000 and SA8000. Many companies include links to the websites of certifying entities or include documents with detailed information on adopted certification.

Even though some companies certify all products, others are only able to certify a part of their wood, such as ALPI (“offers FSC certification on request”), Vicwood (“not all products are FSC certified. Please ask if you require FSC certified products.”), Danzer (“almost all wood processed at Danzer facilities is certified”), amongst others. As also observed by Rametsteiner and Simula (2003), certification in this area of the globe, albeit disclosed by companies, continues to be small compared to Europe.

4.2. Socio-economic themes

Labour-related themes such as workers' welfare and rights, health and safety, and vocational training and diversity, were where the disparity between Western and non-Western companies is most evident. Western companies disclose themes reflecting concerns about working conditions and workers' rights in their own countries ('health, safety and training' was the second most addressed theme), possibly due to

legal obligations and stakeholder requirements (Segal et al., 2003).

*“In fact, employers are expected to ensure good life conditions to their workers and providing them with the adequate rights in their working posts and sites. These include housing, health, safety, hygiene, training, education, and food conditions, amongst others.”*¹

GDC Website, 2016.

Asian companies disclose less of labour-related themes than African companies, possibly due to poor working conditions similar to those prevailing in their home countries (Robertson et al., 2016). Common cases of workers' abuse are not covered by the media and, therefore, most stakeholders are not aware of them; furthermore, consumers are not capable to sanction such behaviours (Kolk et al., 2010).

Some firms have hiring policies based on equal treatment or opportunities, perceiving cultural diversity as an added value to business operations, and a source of creativity and innovation. Companies that most highlight this theme specifically undertake to treat employees equally and without discrimination of gender, race, religion, age, sexual orientation, or social origin.

The theme of corruption and transparency is frequently absent, with 62% of the companies disclosing nothing on the matter. Because corruption is an emerging CSR topic (Osuji, 2011), namely in Africa (Stapenhurst et al., 2017), it is surprising that companies choose not to voluntarily adopt measures to positively contribute towards this matter. The two companies that do so (Danzer, Germany and MAG, Canada) are from nations with low levels of bribing abroad. Unexpectedly, companies from countries well up in the transparency.org index choose not to broach this theme.

In contrast, 73% of companies make no reference to client safety and hygiene, probably because wood is mainly sold to intermediate goods industries, and therefore the theme loses relevance to the majority of forestry companies. Several studies in developing countries (e.g. Wu, 2007) reinforce the idea that raw-materials industries do not have to deal directly with individual consumers and prefer to adopt CSR positions more focused on ethics.

The results obtained for stakeholder management are in line with the general trends, i.e. around 40% of the companies disclose no information on the matter; 25% disclose scarce information; and 35% disclose active engagement. Stakeholder management is frequently understood by companies as a strategy to minimise reputation risks (Cai et al., 2016), and one of the reasons for developing CSR activities (Carroll and Shabana, 2010). This theme is not one of the most disclosed, perhaps due to the fact that they do not belong to the set of controversial industries where risk reduction is essential (Jo and Na, 2012); besides, in forestry, brands are not recognisable by the market (Alcañiz et al., 2010).

Approximately 50% of the companies allege active involvement in the themes 'health', 'education' and 'other direct support to communities', which can be explained by the huge shortcomings of basic needs in the CB, in line with previous studies (e.g. Kühn et al., 2018). Particularly in the DRC, construction of schools and dispensaries are the main items of the Social Clauses included in concession contracts with the State. Due to difficulties reaching the most remote areas of its vast territory, the State delegates the construction of infrastructure to companies that will operate there. Indeed, these seem to be the most perceived CSR issues by local population (Amaral, 2016). Below is an example of support to education:

“Likouala Timber take charge of supplying Betou institutes with desks and office equipment (925) and one year ago opened their own “Center d'Apprentissage” Apprenticeship (Center). The company also takes part in the education of children supporting the PYGMY Wongo school literacy program (ORA method), by UNICEF and the local Catholic mission. The

¹ Translated from French.

school is 25 km from Betou, where the new school for native will open in school year 2008/2009.”

Likouala Timber website, 2016

It is noteworthy that most companies that mention one type of social support (e.g. ‘education’) also mention the other (e.g. ‘health’ and ‘other support’).

Conversely, philanthropy, human rights, and fight against poverty, in this order, are the least disclosed. Overall, the few references to human rights are sometimes as simple as mentioning the adoption of the United Nations Universal Declaration of Human Rights. Again, Western companies merely stand out from the others for making brief statements and mentioning a few concrete measures. The near lack of these themes from African companies is noticeable.

76% of the companies do not mention ‘philanthropy’. Contrary to what the literature suggests (e.g. Visser, 2005), philanthropy does not seem to constitute one of the main pillars of CSR in the forestry sector of the CB. In general, companies prefer to take their own initiatives of social support, and some even establish organisations for that purpose (e.g. the Italian CWG’s ‘Fondazione Domenico Corà’). Other companies prefer to establish partnerships with third parties for common social goals. For instance:

“As a result of a partnership between DLH, its former subsidiary CIB, and the Tropical Forest Trust, the radio station Biso na Biso (which means ‘Among us’) began operations in the concession areas”.

DLH website, 2016

Such partnerships delegate part of the social responsibilities to other organisations, assuring stakeholders that their social and environmental concerns are addressed, while simultaneously associating the NGO reputation to the corporate image.

The observed poor disclosure of the themes ‘human rights’ and ‘fight against poverty’ suggests that the political, social, technological, and economic contexts are not favourable to developing measures to tackle them. The institutions, standards and systems, foundational to the Western conceptualisation of CSR, are comparatively weak in the CB and thus it is possible that the adopted activities are not suited to solve the problems specific to the operational context.

4.3. Environmental themes

Environmental CSR themes were the most disclosed by the companies, independently from their home country. Again, Western companies disclosed more than Asian firms, which in turn disclosed more than African enterprises.

The theme of ‘forest protection’ was the most mentioned. This is not surprising, since it is easier to develop social responsibility policies and actions in areas where companies develop activities (Vilar and Simão, 2015).

Some companies voluntarily disclose measures to prevent the loss of biodiversity, seeking to restrain and control poaching, for example. The construction of logging roads facilitates the access of poachers to areas previously inaccessible (Poulsen et al., 2009), and the population itself participates in illegal trade of bushmeat. In the remote regions of the CB, where the State fails to enforce the law, some companies try to internally regulate hunting and commerce, promoting food safety while protecting biodiversity.

“Concerning wildlife: regulations for subsistence hunting (or village hunting); prohibition on commercial hunting; controlling and sanctioning all acts of poaching in violation of current regulations; recruiting forest wardens and wildlife agent; consciousness raising of employees and local populations; implementation of partnerships with wildlife management bodies (ZSL in Cameroon or WWF and WCS in Gabon).”

Rougier website, 2016

Disclosures about climate change and carbon emissions were

observed to be practically non-existent, except for some Western companies. Notoriously, the subject was overlooked by both African and Asian companies.

“Precious Woods’ wood-chip fired power plant replaces 20 diesel generators. This represents an annual saving of both 44,000 tons carbon emissions and methane emissions equivalent to 113,000 tons of CO₂./ Sustainable forestry in natural tropical forests [...] protects these from deforestation [...] [which] prevents the release of emissions of around 1 million tons CO₂ each year [...]. While these efforts towards combating climate change are currently non-Kyoto compliant, it may be possible to sell associated credits in Voluntary Markets.”

Precious Woods website, 2016

Some companies try to convey the idea that since forests captures carbon, wood is environmentally friendly. However, the underlying rhetoric should be highlighted. In fact, a sustainably managed forest is more efficient in capturing atmospheric carbon than a non-exploited forest, because younger trees grow and absorb CO₂ more quickly than old trees. Although theoretically a truly sustainable rainforest management may seem positive, in terms of carbon it is actually a null value scenario, since the life cycle of wood generally ends with its burning and, consequently, with the initially captured carbon sent back into the atmosphere (ignoring the carbon footprint resulting from the very operations of extraction and supply chain). The use of materials with neutral carbon emissions only makes sense in an economy that is already carbon neutral, which is far from being the current situation.

Similarly to certification, the emphasis on traceability reflects, in part, the requirements of Western markets to where most of the wood is exported for processing or final consumption.

From the mentioned analysis, some trends are observed: CSR disclosure in the forest sector is comparable to other industries in other regions of the globe, e.g. Vilar and Simão (2015) have shown similar values for the banking sector; There is a clear geographic pattern - Western companies disclose more CSR information than their African and Asian competitors; CSR disclosure is more frequent in fields connected to forestry, namely environmental sustainability, forest protection and timber certification, as well as on social matters they are contractually obliged to comply with; companies overlook some relevant themes in the social context of the CB.

5. Conclusion

The region of the CB is environmentally and ecologically relevant for the planet and is subject to significant socio-economic development challenges and pressures. Due to the several roles and meanings that forests assume in the region, it becomes urgent to understand how logging companies disclose their (alleged) CSR activities, by identifying themes and searching for patterns.

The main conclusion of this study is that disclosures of the forestry sector companies operating in the CB are associated to the socio-economic culture of their countries of origin, as well as of the final consumers.

Wood certification and the environmental themes (including forest protection, sustainability, and environmental responsibility) were the most disclosed items. Whilst additional studies are necessary to draw unequivocal conclusions, this may be due to (i) the high environmental sensitivity of the industry and convenience to act in areas of operation, and (ii) the need to reach environmentally demanding export markets. Since information on the logging company does not reach the final consumer, as they are each in opposite extremes of the supply chain, there is no need to maintain brand reputation. Hence, CSR activities are not critical for the decision-making process. Because market pressure focuses more on the product than on the company, disclosure focuses on wood certification.

Regarding the adaptation of disclosure to the local context, the results reveal contradictory behaviours. Within the socio-economic

themes, and in line with the local needs, the companies mostly communicate the construction of infrastructures for education and health. Since these responsibilities are contractual, legal measures, it is questionable whether they can be considered as CSR activities, assuming CSR is what goes beyond the legally required (Davis, 1973). Despite constituting social scourges in the region, the themes of corruption, fighting against poverty and human rights are amongst the least disclosed.

With few exceptions, Western companies stand out as the ones disclosing the most in all themes of social responsibility, comparing to their African and Asian competitors. Asian companies seem to lack interest in communicating the themes of human and labour rights. These patterns suggest CSR communication is in line with the social and cultural concerns of the region where their headquarters are located, something that has been evidenced in the literature.

Even though the product is the main focus of attention when exercising CSR, companies are not fully exempt from reputation risks and loss of legitimacy. Reputation risks are greater for companies originating in societies with higher stakeholder scrutiny; and in this study only Western companies are immersed in a cultural, social, economic and political context beneficial to CSR disclosure.

Through the analysis of corporate disclosure, it was found that companies disclose more information on themes that are contiguous to

their activities or explicit in their operating license contract, and that the disclosure pattern is related to the geographical origin of the companies. The patterns identified suggest disclosure is more related to the characteristics of the companies' countries of origin than to local needs. Disclosure seems to be shaped in an attempt to obtain legitimacy from stakeholders in their countries of origin, and by the social, cultural, and economic realities of these countries.

This work contributes to literature of environmental-sensitive industries in developing regions of the world, by adding to the understanding of the phenomenon of CSR communication by companies of the forestry sector with operations in the region. The results are in line with literature of CSR in the forest-based industry, suggesting a preference in disclosing environmental themes over socio-economic ones, and increased disclosure from companies originating from developed countries over those from emerging or developing economies.

Acknowledgements

This work was supported by Portuguese national funds through FCT - Fundação para a Ciência e a Tecnologia, under project «UID/CPO/00713/2013». The authors would like to thank the anonymous reviewers and Rosana Albuquerque for the valuable suggestions that helped improve the manuscript.

Appendix 1. Grid of CSR themes and respective reference

	Toppinen et al. (2012)	Han and Hansen (2012)	Welford et al. (2007)	Mikkilä and Toppinen (2008)	Blowfield and Murray (2008)	Sobhani et al. (2009)
CSR themes (1/2)						
Economic performance	×		×			×
Market presence	×	×			×	
Indirect economic impacts	×					
Business ethics/fair competition		×	×		×	×
Socio-economic programs		×				×
Legality			×		×	
Taxes			×			
Workers' welfare and rights		×			×	×
Labor principles		×	×	×		×
Responsible employment	×	×	×			×
Workers' relationship with management	×	×				×
Safety and health at work	×	×		×		×
Professional training	×	×				×
Diversity and equality of opportunity	×	×	×	×		×
Community support	×	×	×		×	×
Corruption/transparency	×		×		×	×
CSR partnerships		×	×			×
Research						×
Education						×
Volunteering			×			
Arts and culture						×
Support to social movements						×
Stakeholder management		×	×	×	×	×
Safety			×			
Health			×			×
CSR standards			×	×		
Reports		×	×			×
Charity/philanthropy			×	×	×	
Corporate governance				×	×	×
Environmental responsibility standards			×	×	×	×
CSR themes (2/2)						

Use of resources and energy	×	×		×		×
Biodiversity	×				×	
Emissions, effluents and waste	×	×		×		×
Environmental responsibility of products and services	×			×		×
Transportation	×	×				
Forest sustainability		×		×	×	×
Climate change mitigation		×				×
Forest certification				×		
Animal rights					×	
Human rights (general)			×	×	×	
Investment and acquisition practices	×					
Non-discrimination	×					
Freedom of association and collective negotiation	×					×
Child labor	×					×
Forced work	×					
Fight against poverty						×
Security	×					
Indigenous rights	×					
Hygiene and safety of client	×	×		×		×
Labeling of products and services	×		×			×
Marketing communications	×		×			×
Client privacy	×					
Origin and traceability		×	×	×		
Inspections/audits			×	×		
Quality standards				×		

Appendix 2. Companies and respective website

Company	Country	Website	Nr. documents to download	Language
Western companies				
SOCFIN	France	http://www.socfin.com/Public/	13	English
ROUGIER	France	http://www.rougier.fr/http://www.groupe-rougier.com	29	French, English
Pallisco	France	http://www.pallisco-cifm.com/	127	French, English
Lignafrika	France	http://www.lignafrika.com/	3	English
Thebault	France	http://www.groupe-thebault.com/	21	French, English
ONFI	France	http://www.onfinternational.org/en/	27	English, French, Spanish
COFABOIS	Belgium	http://www.cofabois.com/	0	English, French, Chinese ^a
GDC	Belgium	http://www.gdccam.be/	9	French
ALPI	Italian	http://www.alpiwood.com/en/	23	English, Italian
Likouala Timber	Italy	http://www.likouala.com/	0	English
CWG	Italy	http://www.corawood.com/http://www.coratimber.com/	32	French, English (Italian for their foundation)
Wijma	Netherlands	http://www.wijmadouala.com/	113	English, French
DANZER	Germany	http://danzer.com/	84	English
DLH	Denmark	http://www.dlh.com/	6	English
Precious Woods	Switzerland	http://www.preciouswoods.com/	20	English
Ecowood	Switzerland	http://www.ecowood.ch/	5	English, French
SODEFOR	Lichtenstein	http://www.sodefor.net/	8	French
MAG	Canada	http://www.magindustries.com/	18	English
Industries				
African companies				
Panagiotis Marelis	Cameroon	http://www.pmarelis.com/	0	English, French, Greek ^a
CUF	Cameroon	http://cufcm.com/	5	French
Green Valley	Cameroon	http://www.greenvalleyplc.com/	1	English

SEFAC	Cameroon	http://www.groupesefac.com/	40	French, English
FIPCAM	Cameroon	http://www.fipcam.com/	36	French
SIM	Cameroon	http://www.sim-cmr.net/	0	French
KGROUPE	CAR	http://scad-wood.com/	2	French
BSG	Gabon	http://bsgabon.com/	0	English
CBG	Gabon	http://cbgpog.com/	1	French
SOMIVAB	Gabon	http://www.somivab.com/	2	French
SBL	Gabon	http://www.burn-it.net/maquettes/SBL/index.html	0	French
CEMA	Morocco	http://www.cema-atlas.com/index.html	0	English
GBE	DRC	http://www.gbedrc.com/ ^b	N.A.	N.A.
RAPHA INC SARL	Cameroon	http://www.cema-atlas.com/index.html ^b	N.A.	N.A.
Asian companies				
Vicwood	China	http://www.vicwoodtimber.com.cn/en/ ^c http://www.acfairbankconsulting.ca/vicwood/	0	Chinese English, Spanish.
RHG	Malaysia	http://www.rhg.com.my/	17	English
SEFCA	Lebanon	http://www.sefca-rca.com/http://kamachgroup.com/	2	French
WTK	Malaysia	http://www.wtkholdings.com/	3	English
OLAM	Singapore	http://olamgroup.com/	257	English
JisenWood	China	http://www.jswoodfloor.com/www/html/en/	0	English, Chinese ^d
COTREFOR	Lebanon	http://cotrefor.com/	1	French

^a It was confirmed that the content in this language was a mere translation of the content in English and French.

^b Under maintenance during data collection period.

^c Vicwood Industry's main website was not considered because it was in Chinese.

^d It was confirmed that the content in this language was a mere translation of the content in English.

References

- Albertini, E., 2014. A descriptive analysis of environmental disclosure: a longitudinal study of French companies. *J. Bus. Ethics* 121 (2), 233–254.
- Alcañiz, E.B., Cáceres, R.C., Pérez, R.C., 2010. Alliances between brands and social causes: the influence of company credibility on social responsibility image. *J. Bus. Ethics* 96 (2), 169–186.
- Ali, W., Frynas, J.G., 2017. The role of normative CSR-promoting institutions in stimulating CSR disclosures in developing countries. *Corp. Soc. Responsib. Environ. Manag.*
- Ali, W., Frynas, J.G., Mahmood, Z., 2017. Determinants of corporate social responsibility (CSR) disclosure in developed and developing countries: a literature review. *Corp. Soc. Responsib. Environ. Manag.* 24 (4), 273–294.
- Amaral, F., 2016. De como é percebida a reforma florestal na República Democrática do Congo pelas comunidades locais e pelos povos autóctones. Universidade Aberta, Portugal (MSc Dissertation).
- Atyi, R.E.A., Assembe-Mvondo, S., Lescuyer, G., Cerutti, P., 2013. Impacts of international timber procurement policies on Central Africa's forestry sector: the case of Cameroon. *Forest Policy Econ.* 32, 40–48.
- Belal, A.R., Momin, M., 2009. Corporate social reporting (CSR) in emerging economies: a review and future direction. *Res. Account. Emerg. Econ.* 9 (1), 119–143.
- Bewley, K., Li, Y., 2000. Disclosure of environmental information by Canadian manufacturing companies: a voluntary disclosure perspective. *Adv. Environ. Account. Manag.* 1, 201–226.
- Blowfield, M., Frynas, J.G., 2005. Setting new agendas: critical perspectives on corporate social responsibility in the developing world. *Int. Aff.* 81 (3), 499–513.
- Blowfield, M., Murray, A., 2008. *Corporate Social Responsibility: A Critical Introduction*. Oxford University Press (ISBN:978-0-19-920909-5).
- Boiral, O., Heras-Saizarbitoria, I., Testa, F., 2017. SA8000 as CSR-washing? The role of stakeholder pressures. *Corp. Soc. Responsib. Environ. Manag.* 24, 57–70.
- Bonsón, E., Bednarova, M., Escobar-Rodríguez, T., 2014. Corporate YouTube practices of Eurozone companies. *Online Inf. Rev.* 38 (4), 484–501.
- Brunner, J., Ekoko, F., 2000. The right conditions: the World Bank, structural adjustment, and forest policy reform. *World Resour. Instit.* 59–80.
- Cai, L., Cui, J., Jo, H., 2016. Corporate environmental responsibility and firm risk. *J. Bus. Ethics* 139 (3), 563–594.
- Cantó-Milà, N., Lozano, J.M., 2009. The Spanish discourse on corporate social responsibility. *J. Bus. Ethics* 87, 157–171.
- Capriotti, P., 2017. The world wide web and the social media as tools of CSR communication. In: Diehl, S., Karasin, M., Mueller, B., Terlutter, R., Weder, F. (Eds.), *Handbook of Integrated CSR Communication. CSR, Sustainability, Ethics & Governance*. Springer.
- Carroll, A.B., Shabana, K.M., 2010. The business case for corporate social responsibility: a review of concepts, research and practice. *Int. J. Manag. Rev.* 12 (1), 85–105.
- Castelló, I., Etter, M., Årup Nielsen, F., 2016. Strategies of legitimacy through social media: the networked strategy. *J. Manag. Stud.* 53 (3), 402–432.
- Clarkson, P.M., Li, Y., Richardson, G.D., Vasvari, F.P., 2008. Revisiting the relation between environmental performance and environmental disclosure: an empirical analysis. *Acc. Organ. Soc.* 33 (4–5), 303–327.
- Cormier, D., Magnan, M., 2015. The economic relevance of environmental disclosure and its impact on corporate legitimacy: an empirical investigation. *Bus. Strateg. Environ.* 24 (6), 431–450.
- Dahlsrud, A., 2008. How corporate social responsibility is defined: an analysis of 37 definitions. *Corp. Soc. Responsib. Environ. Manag.* 15 (1), 1–13.
- Davis, K., 1973. The case for and against business assumption of social responsibilities. *Acad. Manag. J.* 16 (2), 312–322.
- de Wasseige, C., Flynn, J., Louppe, D., Hiol Hiol, F., Mayaux, P.H. (Eds.), 2014. *Les Forêts du Bassin du Congo - État des Forêts 2013*. C.P. OFAC, Weyrich, Belgium.
- de Wasseige, C., Tadoum, M., Eba'a Atyi, R., Doumenge, C., 2015. The forests of the Congo Basin – forests and climate change. Weyrich, Belgium. 128.
- Deegan, C., 2002. Introduction: the legitimising effect of social and environmental disclosures – a theoretical foundation. *Account. Audit. Account. J.* 15 (3), 282–311.
- Deegan, C., 2013. *Financial Accounting Theory*, 4th edn. McGraw Hill Book Company, Sydney.
- Defourny, P., Delhange, C., Kibambe-Lubamba, J.P., 2011. Analyse Quantitative des Causes de la Déforestation et de la Dégradation des Forêts en République Démocratique du Congo. UCL/FAO/CN REDD, Kinshasa.
- Fernando, S., Lawrence, S., 2014. A theoretical framework for CSR practices: integrating legitimacy theory, stakeholder theory and institutional theory. *J. Theor. Account. Res.* 10 (1), 149–178.
- Fifka, M.S., 2013. Corporate responsibility reporting and its determinants in comparative perspective – a review of the empirical literature and a meta-analysis. *Bus. Strateg. Environ.* 22 (1), 1–35.
- Flick, U., 2006. *An Introduction to Qualitative Research*. Sage, Thousand Oaks, CA.
- Freeman, R.E., 1984. *Strategic Management: A Stakeholder Approach*. Cambridge university press.
- Gamerschlag, R., Moller, K., Verbeeten, F., 2011. Determinants of voluntary CSR disclosure: empirical evidence from Germany. *Rev. Manag. Sci.* 5 (2–3), 233–262.
- Garcia, A., Mendes-da-Silva, W., Orsato, R., 2017. Sensitive industries produce better ESG performance: evidence from emerging markets. *J. Clean. Prod.* 150, 135–147.
- Ghazali, N.A., 2007. Ownership structure and corporate social responsibility disclosure: some Malaysian evidence. *Corp. Gov.* 7 (3), 251–266.
- Gjølberg, M., 2009. Measuring the immeasurable?: constructing an index of CSR practices and CSR performance in 20 countries. *Scand. J. Manag.* 25 (1), 10–22.
- Gordon, M., Lockwood, M., Vanclay, F., Hanson, D., Schirmer, J., 2012. Divergent stakeholder views of corporate social responsibility in the Australian forest plantation sector. *J. Environ. Manag.* 113 (2012), 390–398.
- Gray, R., Kouhy, R., Lavers, S., 1995. Corporate social and environmental reporting: a review of the literature and a longitudinal study of UK disclosure. *Account. Audit. Account. J.* 8 (2), 47–77.
- Haji, A.A., 2013. Corporate social responsibility disclosures over time: evidence from Malaysia. *Manag. Audit. J.* 28 (7), 647–676.
- Han, X., Hansen, E., 2012. Corporate social responsibility implementation in the global

- Forest sector. *J. Corp. Citizenship* 2012 (47), 101–118.
- Hansen, E., Nybakk, E., Panwar, R., 2013. Firm performance, business environment, and outlook for social and environmental responsibility during the economic downturn: findings and implications from the forest sector. *Can. J. For. Res.* 43 (12), 1137–1144.
- Helfaya, A., Moussa, T., 2017. Do Board's corporate social responsibility strategy and orientation influence environmental sustainability disclosure? UK evidence. *Bus. Strateg. Environ.* 26, 1061–1077.
- Holder-Webb, L., Cohen, J.R., Nath, L., Wood, D., 2009. The supply of corporate social responsibility disclosures among US firms. *J. Bus. Ethics* 84 (4), 497–527.
- Holme, R., Watts, P., 2000. *Corporate Social Responsibility: Making Good Business Sense*. World Business Council for Sustainable Development, Geneva.
- Jamali, D., Karam, C., 2018. Corporate social responsibility in developing countries as an emerging field of study. *Int. J. Manag. Rev.* 20 (1), 32–61.
- Jamali, D., Mirshak, R., 2007. Corporate social responsibility (CSR): theory and practice in a developing country context. *J. Bus. Ethics* 72 (3), 243–262.
- Jamieson, S., 2004. Likert scales: how to (ab)use them. *Med. Educ.* 38 (12), 1212–1218.
- Jaung, W., Putzel, L., Bull, G.Q., Guariguata, M.R., Sumaila, U.R., 2016. Estimating demand for certification of forest ecosystem services: a choice experiment with forest stewardship council certificate holders. *Ecosyst. Serv.* 22, 193–201.
- Jo, H., Na, H., 2012. Does CSR reduce firm risk? Evidence from controversial industry sectors. *J. Bus. Ethics* 110 (4), 441–456.
- Kansal, M., Joshi, M., Batra, G.S., 2014. Determinants of corporate social responsibility disclosures: evidence from India. *Adv. Account.* 30 (1), 217–229.
- Kolk, A., Walhain, S., Wateringer, S., 2001. Environmental reporting by the fortune global 250: exploring the influence of nationality and sector. *Bus. Strateg. Environ.* 10 (1), 15–28.
- Kolk, A., Hong, P., van Dolen, W., 2010. Corporate social responsibility in China: an analysis of domestic and foreign retailers' sustainability dimensions. *Bus. Strateg. Environ.* 19, 289–303.
- Kühn, A.L., Stiglbauer, M., Fifka, M.S., 2018. Contents and determinants of corporate social responsibility website reporting in Sub-Saharan Africa: a seven-country study. *Bus. Soc.* 57, 437–480.
- Lacey, J., Edwards, P., Lamont, J., 2016. Social licence as social contract: procedural fairness and forest agreement-making in Australia. *Forestry* 89 (5), 489–499.
- Li, N., Toppinen, A., 2011. Corporate responsibility and sustainable competitive advantage in the forest-based industry: complementary or conflicting goals? *Forest Policy Econ.* 13 (2), 113–123.
- Li, N., Puumalainen, K., Toppinen, A., 2014. Managerial perceptions of corporate social and financial performance in the global forest industry. *Int. For. Rev.* 16 (3), 319–338.
- Liubachyna, A., Secco, L., Pettenella, D., 2017. Reporting practices of state forest enterprises in Europe. *Forest Policy Econ.* 78, 162–172.
- Lu, F., Kozak, R., Toppinen, A., D'Amato, D., Wen, Z., 2017. Factors influencing levels of CSR disclosure by forestry companies in China. *Sustainability* 9 (10), 1800.
- Maignan, I., Ralston, D.A., 2002. Corporate social responsibility in Europe and the US: insights from businesses' self-representations. *J. Int. Bus. Stud.* 33 (3), 497–514.
- Mäkelä, M., 2017a. Trends in environmental performance reporting in the Finnish forest industry. *J. Clean. Prod.* 142, 1333–1346.
- Mäkelä, M., 2017b. Environmental impacts and aspects in the forest industry: what kind of picture do corporate environmental reports provide? *Forest Policy Econ.* 80, 178–191.
- Matilainen, A.M., 2013. Forest companies, corporate social responsibility, and company stakeholders in the Russian forest sector. *Forest Policy Econ.* 31(C), 44–49.
- Matti, S.A., 2010. The Democratic republic of the Congo? Corruption, patronage, and competitive authoritarianism in the DRC. *Afr. Today* 56 (4), 42–61.
- Mayaux, P., Pekel, J.-F., Desclée, B., Donnay, F., Lupi, A., Achard, F., Clerici, M., Bodart, C., Brink, A., Nasi, R., Belward, A., 2013. State and evolution of the African rainforests between 1990 and 2010. *Philos. Trans. R. Soc. B* 368 (1625).
- Mikkilä, M., Toppinen, A., 2008. Corporate responsibility reporting by large pulp and paper companies. *Forest Policy Econ.* 10, 500–506.
- Milne, M.J., Adler, R.W., 1999. Exploring the reliability of social and environmental disclosures content analysis. *Account. Audit. Account. J.* 12 (2), 237–256.
- Montiel, I., 2008. Corporate social responsibility and corporate sustainability: separate pasts, common futures. *Organ. Environ.* 21 (3), 245–269.
- Nasi, R., Billand, A., Vanvliet, N., 2012. Managing for timber and biodiversity in the Congo Basin. *For. Ecol. Manag.* 268, 103–111.
- Newson, M., Deegan, C., 2002. Global expectations and their association with corporate social disclosure practices in Australia, Singapore, and South Korea. *Int. J. Account.* 37 (2), 183–213.
- Nukpezhah, D., Alemagi, D., Duguma, L., Minang, P., Mbosso, C., Tchoundjeu, Z., 2014. An examination of forest certification status among logging companies in Cameroon. *Int. Sch. Res. Not.* 2014, 1–8.
- Örtenblad, A., 2016. *Research Handbook on Corporate Social Responsibility in Context*. Edward Elgar Publishing, Cheltenham, UK and Northampton, MA, USA.
- Osuji, O., 2011. Fluidity of regulation-CSR nexus: the multinational corporate corruption example. *J. Bus. Ethics* 103 (1), 31–57.
- Panwar, R., Hansen, E., 2007. The standardization puzzle: an issue management approach to understand corporate social responsibility standards for the forest products industry. *For. Prod. J.* 57 (12), 86–90.
- Poulsen, J.R., Clark, C.J., Mavah, G., Elkan, P.W., 2009. Bushmeat supply and consumption in a tropical logging concession in Northern Congo. *Conserv. Biol.* 23, 1597–1608.
- Rameteiner, E., Simula, M., 2003. Forest certification - an instrument to promote sustainable forest management? *J. Environ. Manag.* 67 (1), 87–98.
- Ranängen, H., Zobel, T., 2014. Revisiting the 'how' of corporate social responsibility in extractive industries and forestry: present situation, industry differences and knowledge gaps. *J. Clean. Prod.* 84, 299–312.
- Robertson, R., Di, H., Brown, D., Dehejia, R., 2016. *Working Conditions, Work Outcomes, and Policy in Asian Developing Countries* (ADB Economics Working Paper Series No. 497). Asian Development Bank, Mandaluyong City, Philippines.
- Ruiz-Pérez, M., Ezzine de Blas, D., Nasi, R., Sayer, J.A., Sassen, M., Angoué, C., Gami, N., Ndoye, O., Ngono, G., Nguingui, J.C., Nzala, D., Toirambe, B., Yalibanda, Y., 2005. Logging in the Congo Basin: a multi-country characterization of timber companies. *For. Ecol. Manag.* 214, 221–236.
- Segal, J.P., Sobczak, A., Triomphe, C.E., 2003. *Corporate Social Responsibility and Working Conditions*. European Foundation for the Improvement of Living and Working Conditions, Ireland.
- Sobhani, F.A., Amran, A., Zainuddin, Y., 2009. Revisiting the practices of corporate social and environmental disclosure in Bangladesh. *Corp. Soc. Responsib. Environ. Manag.* 16, 167–183.
- Stapenhurst, F., Karakas, F., Sarigöllü, E., Jo, M.S., Draman, R., 2017. The supply and demand sides of corruption: Canadian extractive companies in Africa. *Can. Foreign Policy J.* 23 (1), 60–76.
- Tauszig, J., Toppinen, A., 2017. Towards corporate sustainability under global agenda 2030: insights from Brazilian forest companies. *Bioprod. Bus.* 2, 65–76.
- Tiani, A.M., Bele, M.Y., Sonwa, D.J., 2015. What are we talking about? The state of perceptions and knowledge on REDD+ and adaptation to climate change in Central Africa. *Clim. Dev.* 7 (4), 310–321.
- Toppinen, A., Li, N., Tuppur, A., Xiong, Y., 2012. Corporate responsibility and strategic groups in the forest-based industry: exploratory analysis based on the global reporting initiative (GRI) framework. *Corp. Soc. Responsib. Environ. Manag.* 19, 191–205.
- Toppinen, A., Lähtinen, K., Holopainen, J., 2016. On corporate responsibility. In: Panwar, R., Hansen, E., Kozak, R. (Eds.), *Forests, Business and Sustainability*. Routledge, New York, pp. 70–90 (Chapter 5, ISBN 978-1-138-77929-7).
- Transparency International, 2016. *Corruption Perception Index 2015*. Transparency International.
- Tuppur, A., Toppinen, A., Puumalainen, K., 2016. Forest certification and ISO 14001: current state and motivation in forest companies. *Bus. Strateg. Environ.* 25 (5), 355–368.
- UNEP, 2016. *Human Development Report 2016: Human Development for Everyone*. UNEP, Washington.
- Vidal, N.G., Kozak, R.A., 2008a. The recent evolution of corporate responsibility practices in the forestry sector. *Int. For. Rev.* 10 (1), 1–13.
- Vidal, N.G., Kozak, R.A., 2008b. Corporate responsibility practices in the forestry sector: definitions and the role of context. *J. Corp. Citizenship* 31, 59–75.
- Vilar, V., Simão, J., 2015. CSR disclosure on the web: major themes in the banking sector. *Int. J. Soc. Econ.* 42 (3), 296–318.
- Visser, W., 2005. Revisiting Carroll's CSR Pyramid: An African Perspective. *Corporate Citizenship in Developing Countries*. Copenhagen Business School Press, Copenhagen, pp. 29–56.
- Visser, W., McIntosh, M., Middleton, C., 2006. *Corporate Citizenship in Africa. Lessons from the Past; Paths to the Future*. Greenleaf Publishing, Sheffield.
- von Grebmer, K., Ringler, C., Rosegrant, M.W., Olofinbiyi, T., Wiesmann, D., Fritschel, H., Badiane, O., Torero, M., Yohannes, Y., Thompson, J., von Oppeln, C., Rahall, J., 2012. *2012 Global Hunger Index: The Challenge of Hunger: Ensuring Sustainable Food Security under Land, Water, and Energy Stresses*. Deutsche Welthungerhilfe (German AgroAction); International Food Policy Research Institute (IFPRI) and Concern Worldwide, Bonn, Germany; Washington, D.C.; and Dublin, Ireland. <http://dx.doi.org/10.2499/9780896299429>.
- Weber, M., 2008. The business case for corporate social responsibility: a company-level measurement approach for CSR. *Eur. Manag. J.* 26 (4), 247–261.
- Welford, R., Chan, C., Man, M., 2007. Priorities for corporate social responsibility: a survey of businesses and their stakeholders. *Corp. Soc. Responsib. Environ. Manag.* 15 (1), 52–62.
- Williams, C., Aguilera, R.V., 2008. Corporate social responsibility in a comparative perspective. In: Crane, A., Matten, D., McWilliams, A., Moon, J., Siegel, D.S. (Eds.), *Oxford Handbook of Corporate Social Responsibility*. Oxford University Press, Oxford, UK, pp. 452–472.
- World Bank, 2017. *Doing Business 2017: Equal Opportunity for All*. World Bank, Washington, DC. <http://dx.doi.org/10.1596/978-1-4648-0948-4>.
- Wu, X., 2007. Stakeholder identifying and positioning (SIP) models: from Google's operation in China to a general case-analysis framework. *Public Relat. Rev.* 33, 415–425.