



Equity and forest certification – A case study in Brazil

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ABSTRACT

Forest Stewardship Council certification aims to use markets to promote socially and environmentally responsible forest management, with a core principle of social “equity”. Yet there is no comprehensive framework for defining and assessing “equity”, nor is there a methodology for determining differences in definitions among forest stakeholders. We’ve employed an analytical framework to a case study of the FSC in Brazil to assess if FSC equity goals are coherent and adherent to its policies, standards and impacts, what factors in FSC’s implementation are influencing that coherency, and whether FSC’s policies on equity match expectations of stakeholders affected by certification. We found that contextual market factors, local capacity, and procedural rules governing the certification process influence FSC’s implementation in an asymmetric way, favoring the certification of large industrial firms over community-based operations. Meanwhile FSC policies and standards prioritize procedural and contextual equity within the operations of individual certified firms. This contrasts with the expectations of local stakeholders focused on distributive outcomes. In general, FSC’s ability to reach both its own and local stakeholder goals for equity relies on the proactive agency of actors committed to overcoming the many barriers to local benefit that are both external and internal to certification itself.

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1. Introduction

Forest certification is a non-state, voluntary market-based instrument with the purpose of incentivizing change in the forest sector. Certification of forest operations and their enterprises in the value chain aims to link producers and consumers by attaching an eco-label to forest products that meet an agreed upon set of environmental and social standards. It is expected that such a mechanism would improve governance in the sector and catalyze changes towards sustainable forest management from local to global scales (Viana et al., 1996; Upton and Bass, 1996; Cashore et al., 2004).

The Forest Stewardship Council (FSC), founded in 1993, is one of the earliest and largest forest certification schemes. It is a membership organization that sets standards for responsible forest management and accredits third party certifiers to assess compliance with those standards. The core of the FSC standards consists of 10 principles and associated criteria (P&C) established at the global level and supplemented in some countries by region-specific indicators (McDermott et al., 2008). As of July 2011, over 140 million hectares of forest had been certified to FSC standards worldwide (FSC, 2011e).

The growth of FSC, and the widespread application of its standards defining responsible forest use, have prompted debates about the equity of FSC’s procedures and impacts. For example, certification has been credited with promoting more balanced governance processes through its engagement of civil society in decision-making (Kanowski et al., 2011) and criticized for giving unequal weight to northern over southern interests in its voting structures (Dingwerth, 2008). Likewise researchers have identified positive effects from certification on biodiversity and ecosystem health (Karmann and Smith, 2009; Zagt et al., 2010) while revealing the unequal distribution of these benefits due to global supply chains that favor large scale over community-based operations (Thornber et al., 1999), and northern over southern firms (van Kooten et al., 2005).

A core challenge that the FSC faces in navigating these critiques, and one that has likewise occupied many researchers of international governance (e.g. Cashore et al., 2004; Dingwerth and Pattberg, 2009), is that as a non-governmental, market-driven organization it lacks a bounded citizenry and sovereign authority to define and legitimize any particular set of priorities. This problematizes, in turn, the evaluation of FSC’s impact, since evaluation requires a framework for deciding what impacts, and at what scales, “count” for what and for whom. Furthermore, in the absence of explicit analysis of different stakeholder perspectives on the balance of certification’s impacts, evaluators have been limited to incomparable claims and counterclaims as to whether or not the net environmental or social impact of certification is positive

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(e.g. Blackman and Rivera, 2010; Karmann and Smith, 2009). Finally, without a systematic framework for analysis, the sheer complexity of factors shaping the equity of certification at local to global scales may lead to overemphasis on certain impacts while other impacts remain invisible or underexplored.

This paper therefore offers a comprehensive framework for defining and measuring “equity” in a manner that encompasses all aspects of certification’s development and implementation at multiple scales, including its governance, policies, standards and implementation in the field. The goal of the framework is not to produce a universal finding on whether or not certification has been equitable. Rather it is to explore a methodology for assessing the relative balance of stakeholder empowerment and benefit across actors and scales. This in turn enables the exploration of intervening factors that influence this balance as well as the examination of different stakeholder perspectives on what constitutes an appropriate balance.

We focus on Brazil as a national case study within which to situate our multi-scale, global to local analysis. Our analysis of intervening factors focuses in particular on actors that play a role in counterbalancing certification’s observed inequalities. For the analysis of perceptions, we examine how FSC policy frames equity at the international level and compare and contrast this framing with the priorities of local stakeholders.

1.1. The equity framework

Equity is a socially constructed concept rooted in notions of “fairness” (Schroeder and Pisupati, 2010). Equity is also fundamentally relativist, implying equality along some particular social dimension in opposition to other dimensions. For example, if a given set of stakeholders defines equity in certification as the equal distribution of benefits based on merit or need, achieving equity is unlikely to result in an equal distribution of profits across all forest stakeholders. This relative nature of equity may support some degree of objective measurement, in that for some variables it is possible to assess whether particular interventions lead to a more or less equal distribution of that variable, even if the determination of what must be equal, and exactly how equal it must be to be equitable, is ultimately subjective.

In light of these qualities of “equity”, McDermott et al. (2012) have recently developed an analytical framework for assessing equity that provides a comprehensive, yet ideologically neutral analysis. This framework identifies four basic parameters for defining equity which we will use to analyze the governance, outputs and outcomes of the FSC. The first three parameters relate to the governance of certification. Parameter 1 is the most fundamental, and addresses how the overarching goals and parameters for equity are set, i.e. who is included and excluded in defining what equity means for a particular certification scheme or other interventions. The second parameter refers to “why equity”, as in whether the aim is to maximize or improve equity or simply do no harm. The third parameter addresses who counts as subjects of equity, which may range from a focus on equity among individuals, households or communities to larger-scale equity considerations across countries or supply chains or across species and generations.

The fourth and final parameter addresses the content of equity, i.e. what counts as a matter of equity. For our analysis of what counts in certification schemes, we focus on the content of certification standards as the mechanism for defining equity at the level of individual certified operations. Consistent with McDermott et al. (2012) we consider three “dimensions” of the content of equity, consisting of distributive, procedural and contextual respectively. We consider distributive equity as referring to the distribution of costs and benefits of relevance to social welfare. The judgment of what is an equitable distribution may be variously based on merit, need, social position or some other metric. Procedural equity refers to the equity of decision-making processes. The contextual dimension as defined by

McDermott et al. (2012) refers to the fundamental capacities of different stakeholders to benefit from, and participate in, certification and forest management. Table 1 summarizes this framework.

2. Methods

The paper is organized around the equity framework illustrated in Table 1 as follows. Parameters 1–3 are addressed in Section 3.2.1 which examines FSC’s governance structure and the resulting goals for equity that have been currently decided within this governance structure. Section 3.2.2 then analyzes the existing distribution of FSC certificates and accredited certifiers according to the FSC’s goals, and identifies intervening variables affecting this distribution. Section 3.2.3 follows by addressing the “what” of equity, as articulated in certification standards and how this matches what is known about certification’s impacts at the forest management unit level. For the purposes of illustration, our focus in this section is primarily on the social as opposed to environmental principles and criteria (FSC, 2002), although we encourage future research that encompasses the environmental dimensions as well.

The data for the first three empirical sections were obtained from primary and secondary sources, including academic and gray literature as well as databases, policies and communication materials that were publicly available at the FSC International and FSC Brazil websites in September 2011. When necessary, additional information was requested directly from FSC International and FSC Brazil staff.

Finally, Section 3.2.3 compares the vision of equity as articulated in the FSC standards with perspectives of local stakeholders. For this analysis, we reviewed the public summaries of certification reports of selected certified operators in Brazil (FSC, 2009). From the universe of 80 certified operations, we selected seven case study operations that represented different forest types (natural forest and plantation), locations (Amazon or center-south) and certification bodies in order to capture the range of socio-economic and environmental contexts. We selected only large (greater than 100,000 ha), privately owned companies on the basis of their high potential social impact over workers and surrounding communities. Of the seven operations selected, five were plantations in the center south and two natural forests in the Amazon. Three were from certification body (CB) 1, two from CB 2, one CB 3 and one from CB 4. Names of the operations and CBs were kept anonymous. From each operation we analyzed the last public summary available of either a certification or recertification audit. From each report we analyzed the public consultation process and the comments of stakeholders about the certified operation. We then classified each comment in terms of whether it addressed distributive, procedural or contextual dimensions of equity, aiming to compare and contrast the nature of stakeholder expectations with the requirements of the FSC P&C.

Table 1

Parameters of the equity framework.

Adapted from McDermott et al. (2012).

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| 1) How have the parameters of equity been set? | –What is the process for decision-making? |
| | –How was it established and who is included? |
| 2) Why equity? What is the explicit/implicit goal? | |
| | a) Maximize equity, b) improve equity, and c) do no harm. |
| 3) Who counts as a subject of equity? What are the scale and target? | |
| | –At which scale(s) are equity impacts considered relevant: |
| | a) individual, b) household, c) community, d) value chain, e) regional, |
| | f) national, and g) global |
| | –How are the needs of current and future generations taken into account? |
| | –How are the needs of non-human species or ecosystems taken into account? |
| 4) Content: What counts as a matter of equity? | |
| | Distributive – social welfare costs and benefits |
| | Procedural – balance of power in decision making |
| | Contextual – basic capabilities, access to certification processes, and power to influence decisions |
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The methodology we used to classify stakeholder comments and FSC P&C was adapted from McDermott et al. (2010), who classified and compared forest policies from different countries. Each dimension was classified as one of the following:

- **Procedural** – Standard requirements and stakeholder comments that are exclusively focused on the decision-making process, rather than substantive objectives or performance thresholds. For example, FSC criterion 4.4 “Consultations shall be maintained with people and groups...directly affected by management operations” is procedural because it addresses fair process but does not prescribe desired outcomes.
- **Distributive** – Substantive performance targets. These might include requirements or comments related to wages, compensation, physical infrastructure or social services. For example, FSC criterion 3.4 “...Indigenous peoples shall be compensated for the application of their traditional knowledge...” is substantive in that it prescribes a particular outcome.
- **Contextual** – For the purpose of analyzing standards and stakeholder comments, we classified contextual as that which addressed compliance with regulations: i.e. existing international, national and traditional laws, rights, conventions and agreements. Contextual as conceptualized by M. McDermott et al. (2012) is much more broadly defined as fundamental capabilities, access and power. While we use this broader conceptualization in our qualitative analysis, we found it problematic to apply it to specific decisions since many procedural and substantive issues could also be considered as contextual. It was, however, useful to use this category to distinguish requirements to follow pre-existing laws versus requirements originating from certification standards and procedures.

3. Results and discussion

3.1. FSC governance

According to the FSC's mission statement the FSC “shall promote environmentally appropriate, socially beneficial, and economically viable management of the world's forests” (FSC, 2011a). These goals are further defined as follows: “Environmentally appropriate forest management ensures that the harvest of timber and non-timber products maintains the forest's biodiversity, productivity, and ecological processes”, “socially beneficial forest management helps both local people and society at large to enjoy long term benefits and also provides strong incentives to local people to sustain the forest resources and adhere to long-term management plans”. “Economically viable forest management means that forest operations are structured and managed so as to be sufficiently profitable, without generating financial profit at the expense of the forest resource, the ecosystem, or affected communities” (FSC, 2011a). The FSC Global Strategy supplements these objectives by expressly addressing the distribution of its benefits by emphasizing “the importance of making progress with forest certification in the endangered tropical forests of the economic south, small forest owners and growing the market share for FSC certified products”. Goal two of the strategy further specifies that “FSC aims to ensure equitable access to the benefits of the FSC system and that FSC will develop additional mechanisms to distribute the benefits from FSC certification more evenly across the supply chain. FSC will also become a more viable and attractive solution to forest managers in tropical regions and increase its relevance to small forest owners, community or low intensity managed forests” (FSC, 2011b). Taken together, these policies could be interpreted as providing comprehensive coverage of the who, why and what parameters of the equity framework illustrated in Table 1.

In regard to the “how” dimension, i.e. how the FSC established its equity goals, this can be traced to the organization's founding. The FSC was launched by a consortium of individuals and organizations

from Europe and North America, including tropical wood importers, the UK-based CEO of B&Q, WWF and other NGOs (Auld, 2009). These founders established the FSC as a membership organization that would be open to all organizations and individuals committed to the FSC principles, in other words the FSC was designed in this way to ensure equitable access to those who supported its vision. A balance of power among the membership was to be achieved through a three-chamber structure, based on the widely accepted international definition of sustainability as a balance of environmental, social and economic priorities (e.g. World Commission on Environment and Development, 1987). Votes were to be distributed equally across social, environmental and economic chambers, and within each chamber divided equally between members from the global north and global south. The FSC Board of Directors follows the same pattern, with three representatives from each chamber elected by the membership (FSC-AC, 2009).

Based on the FSC's definition of equitable decision-making, it is then possible to assess how well it has met its equity goals for chamber-based decision-making. Our analysis is consistent with an earlier comparison by Dingwerth (2008), that found inequalities in the distribution of members across and within chambers. In September 2011, FSC International had 898 members, including 408 (45%) in the economic chamber, 321 (36%) in the environmental chamber and 169 (19%) in the social chamber. FSC also distinguishes between individual and organizational membership categories, where the vote weight for organizations is 0.9 compared to 0.1 for individuals. If we adjust the distribution of memberships according to their weight, this results in 54% for the economic, 30% for the environmental and 15% for the social chambers. To the extent that greater numbers indicate greater capacity for influence, it would appear that representation of social members in particular is inadequate to meet FSC's goals. Additionally, and consistent with Dingwerth (2008), southern members accounted for 54% of the total membership, but 37% of the adjusted membership, while northern are 46% of the members and accounted for 63% of the adjusted composition.

According to Dingwerth (2008), the FSC's inclusion of national-level standard-setting serves to counter global imbalances. However, a similar systematic analysis at national levels is needed to query the precise ways in which national processes are impacting participatory equity. The participation of Brazilians in the international membership of FSC is unevenly distributed across chambers. From 48 members, 38 (79%) belong to the economic, seven (15%) to the environmental and three (6%) to the social chambers. The adjustment of membership ends in a similar relative distribution as the number of members. FSC has devolved a degree of authority to National Initiatives (NI), as a mechanism initially focused on developing locally appropriate indicators to supplement the FSC international P&C. As of September, 2011, FSC Brazil NI had its own 119 members, distributed by members and adjusted members per chamber as 62% and 67% (economic), 24% and 16% (environmental) and 14% and 17% (social). Although the economic chamber is dominant, the NI makes possible the participation of marginalized groups that are either unable or uninterested in joining FSC's global governance structure. We found that the NI has expressly allowed access to small and medium sized companies, local environmental NGOs, social movements, labor unions and individuals who are not members of FSC international. This proactive approach to improving stakeholder balance is most evident in the social chamber, which has 17 members, in opposition to the three Brazilians that participate in FSC International. Finally, regarding membership, only one national company counts for 11 votes in FSC Brazil and International, since its subsidiaries are registered as independent members. The same occurs for international NGOs with affiliate organizations registered in different countries (FSC, 2011c). Therefore, it should be further investigated if the membership of companies and its subsidiaries and NGOs and their affiliates act as networks that disproportionately increase the power of specific groups inside FSC. Furthermore, these

findings highlight how the current policy of FSC to allow differences in international and NI membership may be critical in counterbalancing inequalities in representation at the international level.

3.2. FSC's distribution

3.2.1. Distribution of certificates and accreditation

FSC policy, as discussed above, is clear in its goals to promote equitable access to the benefits of the FSC system across the supply chain, as well as to support the spread of certification in the global south and among small-scale, community-based and low intensity operations. Thus far, the FSC system has developed policies to address the distribution of FSC certificates across large and small operations, but not across the north and south. Specifically, the FSC has two policies to increase access to certification (Nebel et al., 2005). One is the possibility of group certification and the second is the SLIMF (Small and Low Intensity Managed Forests) program (FSC, 2011d). Both aim to decrease costs and simplify procedures for marginalized forest operations to get certified (Ros-Tonen et al., 2008). Examination of the actual distribution of certification to date suggests these policies have been limited in their effectiveness.

In July 15th 2011, there were 1049 forest operations certified by FSC in 79 countries summing 40,502,262 ha. Additionally, there were 21,063 operations chain-of-custody certified in 107 countries (FSC, 2011e). The level of implementation of FSC in a specific country is influenced by variables such as economy (GDP, export market), level of governance and the social context (van Kooten et al., 2005). Brazil ranked sixth globally, and first in the tropics, in terms of the size of forest area and number of forest operations certified, totaling 6,407,762 ha spread across 80 operations, compared to a total of 12,004,316 ha and 227 operations in Latin America and the Caribbean. It also counted for 669 of the 944 chain of custody certificates of Latin America and the Caribbean (FSC, 2011e).

There are a variety of forests certified in Brazil in terms of size, profile of producer, product and location (FSC, 2011a). Plantations represent the majority of the area (57%) and number of certificates (79%), and private firms account for an even higher majority in regard to producer profile (90% of certificates and 75% of the area). Community and indigenous operations, in contrast, represent only 10% of the projects and 25% of the certified area (Table 3). According to Abruf (2011), around half of Brazilian plantations (53% of 6,973,083 ha) are already certified, mainly by FSC, but also by a competing certification label, the Programme for the Endorsement of Forest Certification schemes (PEFC). Most of the certified plantations consist of eucalyptus and *Pinus* for paper and pulp, energy and other uses. In contrast, certification of native forests of the Amazon accounts for around 5% of the volume of tropical timber production in Brazil (Pereira et al., 2010). There are eight community operations certified, out of a total of 1213 initiatives of community forest management in the Brazilian Amazon and 135,267,440 ha of forests with potential to be dedicated to community or indigenous management sum (Pereira et al., 2010; SFB, 2011). Finally, we found few cases of certified suppliers of timber for industrial plantations. This distribution of certificates suggests that many different producer profiles have failed to capture the benefits, as well as costs, of FSC certification. While the distribution of certificates is clearly far from equal across producer types, the lack of data on net costs and benefits of certification makes it difficult to draw definitive conclusions as to the overall impacts on producer equity.

The asymmetric distribution of FSC implementation in Brazil is similar to its global pattern, where the majority of the forests certified are boreal and temperate (90% of the area) and located in Europe and North America (80% of the area) (FSC, 2011e). Besides the influence of context in FSC implementation pointed out by van Kooten et al. (2005), Eden and Bear (2010) added that FSC's geography of certification reflects economic geographies of production, and buried within

Table 2

Classification of FSC principles and criteria relevant to social equity*.

Principles and criteria	Procedural	Contextual	Distributive
Principle 1: compliance with laws and FSC principles		X	
total of 6 criteria	–	6	–
Principle 2: tenure and use rights and responsibilities		X	
total of 3 criteria	1	2	–
Principle 3: indigenous peoples' rights	X		
total of 4 criteria	2	1	1
Principle 4: community relations and worker's rights	X	X	
total of 5 criteria	2	2	1
Total principles	2	3	–
Total criteria	5 (28%)	11 (61%)	2 (11%)

* Principles 1–4 and their criteria were classified according to the content dimensions of the equity framework (procedural, contextual or distributive). A principle was classified in one of the dimensions when more than 50% of its criteria fit in one of the dimensions. When it was the same importance for 2 dimensions (e.g. principle 4), the principle was classified in both dimensions.

this are the ecological geographies of its adapted standard. For Pattberg (2005) the reasons for this disparity in FSC implementation are inadequate infrastructure and economic disequilibria in developing countries, which make it easier for well-organized forestry companies in temperate regions to meet the FSC standards and criteria. They also argue that achieving certification in the tropics is more costly than in temperate or boreal forests. In the Brazilian case, economic incentives to get certified are strongest for plantations producing pulp and paper. These operations are mostly located in the center-south of Brazil (the richest, most developed and with high governance level region) (Araujo et al., 2009). International demand for wood pulp in southern Brazil stands in stark contrast to the mostly domestic markets that consume wood from the Amazon. For these many reasons combined, timber companies located in the Amazon and communities and indigenous groups face both barriers in capacity to meet certification standards and lesser market demand and potential reward for certification. These barriers are perhaps greatest for the many communities and indigenous groups focused on the production of non-timber forest products (NTFPs) for local markets.

While these various barriers to the equal distribution of certification are relatively well studied, less attention has been paid to intervening factors that may serve to counterbalance them. As will become clear through our analysis below, certifiers appear to have played an important intervening role in this regard. Yet to date the relatively little literature addressing certifiers has focused primarily on their role in affecting the credibility of the FSC (Pattberg, 2005), while remaining silent on the equity implications of how certifiers are selected and/or on how certifiers impact equity.

In order to address this issue we analyzed the 26 organizations accredited by ASI (Accreditation Services International) to act as certification bodies (CBs) in the FSC system. We note that only one of them is registered in the southern hemisphere (ASI, 2011). Two are

Table 3

Total and relative distributions of number and area of certified operations in Brazil according to forest type and profile of producer.

Type of operation	Number	% Number	Area (ha)	% Area
Plantation	63	79	3,661,696	57
Natural forest	17	21	2,745,566	43
Total	80	100	6,407,262	100
Private	72	90	4,835,221	75
Community/indigenous	8	10	1,572,041*	25
Total	80	100	6,407,262	100

* One indigenous project accounts for 1,572,011 ha. The other seven sum up to 29,810 ha.

not for profit organizations, based in the north, and the rest are for-profit firms. Eleven of the total are active in Brazil, including the two not for profit organizations. One of them (Rainforest Alliance) works in partnership with a national NGO (Imaflora) that conducts audits in the country as an inspection body of Rainforest Alliance. Of the 80 FSC certified forest management operations in Brazil, 64% was assessed by Imaflora/Rainforest Alliance, 24% by SCS and 12% by other CBs. All the eight community/indigenous projects are certified by Imaflora/Rainforest Alliance. Imaflora has the express objective to increase access to certification for marginalized producers in Brazil, and has a special fund to subsidize audits to meet this objective (Imaflora, 2010). Consistent with this policy, the local CB has played a central role in distributing certification among indigenous and community operations thus countering wider trends that favor large-scale operators. We hypothesize several reasons for why local and non-profit CBs might play such an intervening role, including that such CBs may have a higher accountability in the country, may have organizational values that match FSC's equity goals, may be less expensive to hire, and may have stronger relational networks with local producers.

While the above analysis might suggest that greater involvement of local non-profit CBs could promote a more equal distribution of certificates among small and community-based operators, Nussbaum et al. (2000) in their review of FSC accreditation criteria for CBs, have concluded that there was little scope for simplification of the accreditation process without undermining the credibility of the FSC system and its accredited certifiers. However, they recognized that the current system resulted in accreditation being expensive and technically demanding, with the consequences of increasing costs for certified operations and excluding local organizations and organizations based in the global south to serve as CBs. McDermott (in press) adds that the trend of certification accreditation to follow ISO rules is propelling an increasingly generic approach to accreditation that heightens competition among CBs over costs while lessening incentives and opportunities for CBs to accrue reputational benefits from pro-actively supporting small-scale and community-based operations.

3.2.2. FSC's local impacts

The FSC principles and criteria (P&C) form the basis for all FSC-accredited standards, and define equity in regard to the forest management practices of certified producers. In particular principles and criteria 1–4 focus on the social dimensions of forest manager performance. In Table 2 we draw on the equity framework to classify these first four principles and their associated criteria, in terms of whether they address the procedural, substantive and contextual dimensions of equity.

As is clear from Table 2, the FSC standards place particular emphasis on contextual issues — in the form of legal coherence; and procedural issues — in the form of access to decision-making. The contextual and procedural issues covered include compliance with national and international regulations, the protection of tenure rights, the free and informed consent of indigenous people and consultation between certified operations and affected stakeholders, such as communities, workers and indigenous people. No principles and only a few criteria were classified as distributive, i.e. as addressing the distribution of certification's material benefits. As a partial exception, principle 4 states, "Forest management operations shall maintain or enhance the long-term social and economic well-being of forest workers and local communities" thus implying a distributive dimension. But four of the five criteria that define the application of principle 4 focus on procedural or contextual requirements which are presumed to create conditions for enhanced well-being.

There have been various studies to date that have attempted to evaluate the FSC's impacts at the forest management unit level, and they have varied in their emphasis on procedural, distributive or

contextual factors. Some have focused primarily on material benefits to producers, yielding mixed results (Alvarez and von Hagen, 2011; Blackman and Rivera, 2010). Others have focused on benefits to other stakeholders, and have included broader consideration of contextual and procedural, as well as distributive factors. At the global level, Karmann and Smith (2009) identified that the main social impacts of FSC included material benefits for workers (workers' training and safety, and employment of local workers) and procedural benefits for local stakeholders (better communication, participation and consultation of affected stakeholders). A review of the global impacts of SmartWood (one of the main CBs acting in the system) had similar results (Newsom and Hewitt, 2005). The study analyzed the effect of certification in 129 operations in 21 countries and concluded that the most prevalent social impacts of certification were improved communication and conflict resolution with stakeholders, neighbors and communities, improved worker training and improved worker safety. Whether or not the results from these various studies reveal enhanced equity, would depend in part on the weight that is given to producer versus non-producer benefits. A systematic consideration of the equity framework would also suggest the need for further nuanced research that examines the power dynamics of local stakeholder participation — i.e. which stakeholders are gaining influence and how this is impacting other stakeholders, and what is the link between FSC-driven participation in forest management decisions and long-term community well-being.

In regard to global equity, Newsom and Hewitt (2005) observed that tropical forestry operations experienced significantly higher positive social impacts than temperate operations. Likewise Newsom et al. (2006) analyzed the impact of SmartWood in the USA and concluded that forest certification standards in northern countries tend to focus more on ecological issues, while those of southern countries tend to focus on economic and social aspects. Impact assessments made in Brazil are consistent with this international trend. Castrat (2004) found positive changes in aspects related to health, nutrition, safety, infrastructure, and to the type of contract for hiring employees in a certified plantation company. Lima et al. (2009) assessed impacts of FSC in seven certified and seven control plantations in south Brazil and found material improvements for workers in areas such as health and safety conditions, level of education, training, housing, food, transportation and formal hiring. They also identified higher salaries and social benefits for workers in certified operations. These global patterns raise interesting questions about the trade offs between ensuring access to certification for producers and generating benefits for workers and communities. Higher demands for social responsibility for southern producers raise the costs of certification and may restrict producer access, while at the same time generating community benefit.

3.2.3. Local stakeholder's perceptions about FSC implementation in companies in Brazil

The above studies of certification's impacts have varied in the focus of their analysis, and hence have emphasized, either implicitly or explicitly, the importance of certain impacts over others. Our paper's focus on the McDermott et al. equity framework, in contrast, directly queries this prioritization, suggesting that the framing of evaluation is far from politically neutral. To illustrate this point we conduct a comparative analysis of FSC's global priorities for equity as articulated in the international principles and criteria, with the concerns of local Brazilian stakeholders affected by certification.

As explained in this paper's methodology section, to assess the perspectives of local stakeholders we drew on data available through the public summary reports of seven certified operations. The seven reports surveyed documented the same procedures for stakeholder consultation during the audit process as defined by FSC's policies. Field audits were announced at least one month in advance by different forms of communications (postings on web-sites of the CBs,

e-mails, announcements in local newspapers and radios, and letters) to a wide audience of stakeholders, ranging from international and national to local residents. But all the reports mention that these required consultation procedures have generated a low level of response and that most of the contributions come from participation in public meetings and direct local interviews during the audit. The groups participating in these certification meetings and interviews are those directly affected by certified operations (labor unions, local NGOs, local public authorities, managers of conservation units, representatives of the church, social movements and organizations responsible for local services such as education, health and transport), most of whom are not members of the FSC at any level. The seven certification reports sum up to 165 comments from stakeholders, ranging from nine to 54 comments per report (Table 4). Comments about distributive aspects of the performance of the company represented 53% of them, followed by contextual (28%) and procedural (19%). In all the cases except two, distributive was the most important dimension. For the two exceptions, procedural dimensions were equally important. This distribution contrasts with the classification of the FSC P&C, where distribution was the least important dimension (see Table 2). Therefore, although FSC may enhance stakeholder communication between a company and local stakeholders, it does not necessarily address the issues of greatest concern to local groups. Our results suggest that, at least for our Brazilian case study, local stakeholders are concerned about the direct and tangible impacts of the company on the economic and human development of local populations. This is consistent with the findings of Gerber (2011) and Kröger and Nylund (2012) who discussed the conflicts and dilemmas of industrial tree plantation companies that occupy large extensions of land, concentrate power and become the main economic driver in regions of low development or poverty such as center-south Brazil.

4. Conclusions and final remarks

The application of the framework designed by McDermott et al. (2012) allowed us to build a systematic and comprehensive understanding of the different dimensions of equity. In light of this framework, the FSC policies and standards, taken as a whole, are quite comprehensive in addressing the many scales and dimensions relevant to equity. At the same time, they set ambitious goals that face many structural obstacles in their achievement. In addition to these barriers, some of which are well recognized in the literature, our analysis has revealed understudied intervening variables that counter some of these structural barriers. Likewise, our analysis identified differences in the way that FSC has framed equity globally from the way it is viewed by target local beneficiaries. All of these findings together emphasize the need for more holistic, systematic and focused attention to equity to give voice to a wider range of stakeholders and identify effective interventions to achieve equity goals.

Table 4
Classification of stakeholder comments in seven public summaries of certified operations in Brazil according to dimensions of equity.

Operation	Procedural	Contextual	Distributive	Total
Plantation 1	4	1	4	9
Plantation 2	6	4	12	22
Plantation 3	–	12	23	35
Plantation 4	3	1	5	9
Plantation 5	12	16	26	54
Native Amazon 1	1	9	13	23
Native Amazon 2	5	3	5	13
Total	31 (19%)	46 (28%)	88 (53%)	165 (100%)
Classification of FSC criteria*	28%	61%	11%	

* Summary of classification of FSC criteria, from Table 2.

Below is a more detailed summary of these results:

4.1. Process and target – How and who of equity

The FSC's governance structure allows stakeholders with many different interests and levels of power and influence to participate, and the chamber system aims to balance this power across environmental, social and economic interests and between the global north and south. Additionally, the FSC recognizes a network of national initiatives that enable the participation of national stakeholders in further defining FSC international standards to address different national contexts. Although we identified that many factors determine the implementation of FSC in a specific country or region, the disproportionately large number of economic chamber members, in particular industrial firms, and the dominance of members from the global north, stand in contrast to FSC's stated goals of achieving equality of power and access across the chambers, world regions, and producer types. We hypothesize that the dominance of economic and northern groups in the membership may influence FSC to define policies and standards that favor its implementation for those actors, instead of the most marginalized forest groups. At the same time we observe that the presence of NI members who by choice or design are not international members of FSC plays an important role in counterbalancing these cross-chamber inequalities.

4.2. Content and goal – Why and what of equity

We found that FSC policies and standards (and consequently its impacts) prioritize procedural and contextual dimensions of equity, dealing with transparency, participation, accessibility to the system, guarantee of rights, compliance with regulations and mechanisms for consultation and dialog between certified operation and groups impacted by them. Nevertheless, although less emphasized, distributive aspects are also explicit in the FSC's standards and appear as a result of their implementation. Specifically, FSC policies state the goals of increasing social benefits for disadvantaged groups and enhancing the welfare of workers and other groups affected by forest operations. Studies demonstrate that the latter benefits are more likely to occur in developing and tropical countries, where the level of governance is lower and the impact of certification compared to business as usual becomes more evident.

Our findings indicate that contextual conditions represent barriers for upscaling certification among community-based and indigenous producers, as well as other small and medium size companies and suppliers of timber to industrial companies. Our data have suggested that the present FSC policies for accessibility (group certification and SLIME) are relevant, but have not been enough to achieve its ambitious goal “to ensure equitable access to the benefits of the FSC system”. Our research indicates that support of NGOs and donors helps to increase access. However, upscaling of these benefits may rely on incorporation of FSC in policies of governments and corporations with impact in forest value chains. We also observed that the design of the FSC accreditation process was inhibiting the participation of local and not for profit certification bodies who, at least, in our Brazilian case study, have been the only type of CB that has certified indigenous and community-based operations.

Finally, our findings suggest that local stakeholders affected by FSC certification are asking for distributive benefits that are not addressed by the FSC standards, highlighting a mismatch of expectations. Therefore, in order for the FSC to reach its objectives of achieving an equitable distribution of benefits, it may be necessary to establish explicit goals regarding alleviation of poverty and the promotion of long-term local development followed by policies and standards that assure their implementation. From the perspective of global equity in certification requirements, these decisions would need to be addressed

as part of a global process, but adapted for local realities, with the participation of national and local stakeholders.

That said, the pursuit of equity necessarily involves an array of trade offs at different scales and among different actors. An increase in requirements to distribute benefits to local communities would likely raise the cost of certification, with variable impacts on producers. This paper, rather than adopt an a priori position on this or any other question of equity, aims to make these trade offs more explicit by positioning them within a comprehensive framework. This in turn can enable all stakeholders to better navigate their way towards informed and holistic strategies.

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