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Integrating human rights in the sustainability governance of global supply chains: Exploring the deforestation-land tenure nexus

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ABSTRACT

In contemporary discourse, the need to address urgent environmental issues with a social perspective is widely acknowledged. While theories on policy integration have primarily focused on the national scale, limited attention has been given to the merging of environmental and human rights considerations in global supply chain sustainability governance. Drawing on policy integration theories, we develop an analytical framework for studying Human Rights and Environmental Integration (HREI) within global supply chain governance, specifically examining the deforestation-land tenure nexus in soy supply chains from Brazil to Europe. Our empirical analysis focuses on key policy instruments, including the Soy Moratorium, the Working Group on the Cerrado, the Round Table on Responsible Soy (RTRS), and the EU Regulation on deforestation-free products (EUDR). Drawing from extensive fieldwork in Brazil, we assess the integration of land tenure in these policy instruments, revealing a general weakness in this aspect. Nonetheless, grassroots organizations have played a crucial role in advocating for enhanced HREI, urging the inclusion of land tenure rights in instruments addressing deforestation. Our research highlights that, although global supply chain instruments may not entirely compensate for the deficiencies of domestic policies, they should, at the very least, strive to comprehensively address complex sustainability problems and prevent actions that could worsen existing issues or give rise to new sustainability problems. In conclusion, our study contributes to a more nuanced understanding of the opportunities and structural constraints associated with integrated approaches to interconnected human rights and environmental issues.

1. Introduction

In the recent past, there has been a growing recognition of the intrinsic links between human rights and the environment. Failing to address these issues in an integrated manner results in disjointed interventions, potentially undermining the effectiveness of environmental governance and causing unintended adverse human rights impacts. The widespread consensus that social and environmental issues need to be addressed through integrated approaches is also reflected in the Sustainable Development Goals (SDGs) (Tosun and Leininger, 2017; Bogers et al., 2022). This paper analyzes human rights and environmental integration (HREI) in the context of the sustainability governance of global supply chains. Previous literature has often either focused on human rights or environmental issues, and rarely taken into account how fragmented interventions produce tensions and negative externalities on the ground.

It is high time now to ask to what extent different global supply chain instruments aimed at fostering sustainability enable or hinder HREI. This paper analyzes the institutional design and implementation of private, public and hybrid policy instruments. Empirically, we focus on the supply chains of soy from Brazil to Europe, which have caused or contributed to severe environmental damages and human rights infringements (e.g., Bombardi, 2017; Pendrill et al., 2019; Russo Lopes et al., 2021). In particular, we study the nexus between deforestation and land tenure rights – environmental and social impacts that have often been closely interlinked on the ground (Larson, 2011; Merino and Gustafsson 2021; Schilling-Vacaflor, 2021).

Our contribution to previous literature is threefold. First, we

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examine how global supply chain instruments address and influence the deforestation-land tenure nexus in the context of Brazil. Specifically, we focus on four central policy instruments: the Soy Moratorium, the Working Group on the Cerrado, the Round Table on Responsible Soy, and the EU Regulation on deforestation-free products (EUDR).

In Brazil, domestic legislation has created incentives for land appropriation through deforestation. Consequently, conservation efforts have contributed to practices of 'green grabbing', resulting in the dispossession of Indigenous peoples, traditional communities and family farmers (PCTAFs) from their lands (Torres et al., 2017; Silva et al. forthcoming). We analyze how the policy instruments unfold in such complex contexts and argue that the weak integration of land tenure in these instruments tends to undermine both the protection of forests and human rights.

Second, whereas research on policy integration has primarily concentrated on the national scale, we develop a theory for analyzing HREI in the context of the sustainability governance of global supply chains. Drawing on policy integration literature (e.g. Jordan and Lenschow, 2010; Candel and Biesbroek, 2016; Tosun and Lang, 2017), we argue that three interlinked dimensions–i.e., policy frames; actor interests and power; and policy instruments–shape HREI processes. By identifying the specific challenges associated with HREI in the global supply chain context, our framework significantly advances existing theories on policy integration.

Third, in contrast to the predominant emphasis on state actors in policy integration scholarship, we underscore the crucial role of social movements and grassroots organizations in driving policy integration. We demonstrate how grassroots organizations, experiencing direct consequences resulting from a lack of consideration of land tenure in tackling deforestation, have actively pressured for HREI. Through an analysis of these bottom-up struggles for HREI, we contribute with a better understanding of the opportunities and structural constraints for more integrated approaches.

Taken together, we argue that while policy instruments aimed at fostering sustainability in global supply chains cannot compensate for the shortcomings of domestic policies, they need to ensure that complex sustainability problems are handled adequately, and that their actions do not exacerbate existing or produce new sustainability problems.

2. Theory: policy integration of human rights and the environment (HREI) in the governance of global supply chains

This study draws on and contributes to literatures on policy integration, environmental governance and business and human rights. In this section, we first present a brief state of the art on policy integration and HREI, and thereafter outline our analytical framework. In line with Collier, we define policy integration as "removing contradictions between policies as well as within policies; and realizing mutual benefits and the goal of making policies mutually supportive" (Collier, 1994, 36).

Public and private organizations frequently address policy issues by implementing specialized measures, which can prove to be an efficient strategy for resolving specific policy challenges. However, fragmented interventions are often inadequate to address complex, cross-cutting problems, such as deforestation, climate change, and environment-related human rights violations, and can even lead to trade-offs and negative impacts in other policy domains. For instance, studies illustrate that the interests and rights of local communities have often been insufficiently taken into account in different types of public and private policy instruments, such as conservation initiatives, environmental impact assessment (EIA) and certification standards, resulting in conflicts and human rights infringements (Lyster, 2011; McDermott, 2013; Merino and Gustafsson, 2021). To avoid such adverse impacts, coordination between environmental and human rights policies is needed (cf. Giessen, 2011; Tosun and Lang, 2017).

There is a large literature on policy integration and the mainstreaming of environmental protection and climate change into different non-environmental sectors, which has advanced our understanding of enabling and hindering factors for achieving policy integration (Lenschow, 2002; Biesbroek, 2021). Previous studies focusing on the international scale (e.g. the UN), have argued that there is a fragmented institutional landscape, wherein human rights institutions rarely integrate environmental issues and environmental governance institutions rarely take human rights into account (Conca, 2015). However, in the past decade, the awareness that the environment is crucial for the realization of human rights has grown, as reflected in the United Nations Human Rights Council's recent adoption of a resolution recognizing the human right to a clean, healthy and sustainable environment in 2021 (Resolution 48/13). Similarly, discourses on 'just transformation' and the need to integrate human rights concerns in environmental policies, have gained traction. For instance, there is a growing literature on the integration of human rights in climate change policies (Schlosberg, 2012; Merino and Gustafsson, 2021; Dolšak and Prakash, 2022), and more broadly on rights-based approaches in sustainability governance (Conca, 2015; Ensor and Hoddy, 2021).

Literature on business and human rights has largely focused on human rights impacts of companies, such as labor rights. However, this scholarship has also increasingly debated environment-related human rights violations by companies and has paid ever more attention to interconnected relationships between human rights and the environment (e.g., Macchi, 2021). However, to date there have been very few empirical studies centering on the specific advances and challenges to HREI in the context of the sustainability governance of global supply chains (for an exception, see Schilling-Vacaflor, 2021).

2.1. Analytical framework

This section develops a framework to be applied for studying HREI in the institutional design and implementation of global supply chain policy instruments. Drawing on previous research on policy integration, we distinguish between three interlinked dimensions that help to explain processes of policy integration: policy frames; actor interests and power; and policy instruments (e.g. Jordan and Lenschow, 2010; Candel and Biesbroek, 2016; Tosun and Lang, 2017).

Policy frames refer to perceptions of a specific policy problem. Candel and Biesbroek (2016) argue that it is decisive whether the problem at hand is perceived and framed as a crosscutting issue that requires an integrated approach. There are often multiple understandings of a policy problem and it is important to analyze which problem definition becomes dominant among powerholders, and which ones become marginalized. In contrast, the conceptualization of problems as cross-cutting requires holistic forms of collaboration between different subsystems, thus fostering integrated approaches (Candel and Biesbroek, 2016).

In the context of the sustainability governance of global supply chains, there is often a lack of knowledge, traceability and relevant data of sustainability problems (e.g. Gardner et al., 2019; Newig et al., 2020). Moreover, sustainability problems also differ in the extent to which they are high on the global agenda and how easily they can be monitored. For instance, whereas there is robust data on deforestation in many countries, data on human rights, such as land tenure rights and associated conflicts, is often missing (May and Ozinga, 2021). Difficulties to understand and monitor complex issues often result in simplistic policy frames and inadequate responses to complex cross-cutting problems.

Actor interests and power play a central role in fostering or hampering policy integration (Jordan and Lenschow, 2010). Actors can frame the policy problem in different ways, engage in policy innovation, and coalition-building to foster higher degrees of policy integration both in institutional design and implementation processes (Jochim and May, 2010). To achieve policy integration, it is necessary to create interdependencies and close collaborations between actors that do not necessarily share interests and have a history of collaboration, which can result in weak forms of integration (Tosun and Lang, 2017). To study

policy integration it is therefore important to analyze actors that are or could be involved in governing a cross-cutting policy problem (Candel and Biesbroek, 2016). The policy integration literature usually focuses on political elites and bureaucrats, and has rarely studied the role of social movements and civil society organizations in such processes (for an exception see Pollack's and Hafner-Burton, 2000). Here we argue that by analyzing less influential actors' attempts to address cross-cutting problems by developing proposals or seeking to influence formal policies, we can gain new insights concerning the problems at hand, possible policy solutions and integration challenges. It is also important to analyze how intensively the different actors interact with each other, for instance, by providing for input on policy proposals or participating in working groups. Generally, high degrees of policy integration require relatively frequent and close interactions between different groups of actors. In turn, if problems are defined in narrow terms that only reflect the interests or perspectives of one group, more integrated solutions are unlikely (Candel and Biesbroek, 2016).

In the context of global supply chains, cooperation is often more difficult due to the long distances, divergent interests, high transaction costs and the lack of histories of collaboration between actors on the demand- and the supply-side (Newig et al., 2020). Private and public actors on the demand-side are often concerned about issues that are high on the global agenda, such as deforestation and climate change, whereas they do not have jurisdiction to handle other issues, such as land tenure (Bartley, 2018). In contrast, marginalized local actors that are affected by social and environmental impacts associated with the expansion of large-scale agribusiness in producing sites, are more likely concerned with a broader set of issues related to food security, land tenure, water availability and development and might push for HREI.

Relatedly, how *policy instruments* are designed can play an important role for policy integration. Previous literature has focused on the adoption of different procedural instruments, such as working groups, impact assessments, consultation mechanisms, and funding programs. Procedural instruments can also be used at a more overarching level to help to coordinate the policy efforts of different subsystems. Such procedures need to be inclusive, and enable different actors to work together (Jordan and Lenschow, 2010; Candel and Biesbroek, 2016; Tosun and Lang, 2017). Policy integration is unlikely, if policy instruments used by different actors are incompatible with each other.

Global supply chain governance is often characterized by a mix of different types of public and private policy instruments. Private policy instruments, such as certifications and audits have often been dominated by the interests of large-scale agribusiness, and are thus likely to result in rather weak forms of policy integration (LeBaron et al., 2017). Public supply chain regulations have until recently focused on either environmental or human rights issues (Schilling-Vacaflor, 2021). Only more recently, broad cross-sectoral regulations, such as the French Duty of Vigilance law (2017) and the German Supply Chain Due Diligence law (2021), covering both environmental and human rights impacts, have been adopted. The primary policy goals are defined by the institutional design of such instruments, and it is, therefore, important to pay careful attention to the design of instruments that are relevant for policy integration.

In this paper, we analyze HREI in key policy instruments aimed at fostering sustainability in global supply chains, with a focus on soy production in Brazil. We analyze how sustainability problems are framed, the role of actor interests and power, and the institutional design of policy instruments. Moreover, we show how activists and grassroots organizations have demanded the integration of land tenure in such instruments, thereby pushing for HREI.

3. Methodology

Brazil plays a significant role as a major exporter of soy and is also pivotal in the global effort to combat deforestation (Rajão et al., 2020). Thus, it serves as a crucial case for analysing HREI in the governance of its supply chains. The article employs within-case analysis to examine four policy instruments for governing global supply chains: the Soy Moratorium, the Working Group on the Cerrado, the Round Table on Responsible Soy (RTRS), and the EU Regulation on deforestation-free products. These cases encompass central private, public, and hybrid policy instruments, providing a comprehensive overview of how the nexus between deforestation and land tenure is addressed.

Our findings stem from a systematic analysis based on two data sources: semi-structured interviews and written primary sources. To gather this data, we conducted field research stays totaling five months between 2017 and 2022 in soybean producing sites in Pará, in the Brazilian Amazon, and in western Bahia, in Brazil's Cerrado biome.

Initially, we analyzed policy documents, public statements, and law proposals related to the four policy instruments. Regarding the Soy Moratorium and the Cerrado Working group, we examined different statements from grassroots organizations and agribusiness actors as well as reports from the Soy Working Group and the Cerrado Working Group. Concerning RTRS, our analysis focused on the standards' content and audit reports. Finally, regarding the EUDR, we analyzed law proposals and the regulation adopted in May 2023, and reviewed statements submitted to the EU by Brazilian civil society actors during the public consultation in 2020. These documents enabled us to analyze the policy frames and the design of the policy instruments, two of the aspects of our analytical framework.

Second, to gain a deeper understanding of policy frames and how actor interests and power shape the complex processes of HREI–the second aspect of our analytical framework–we conducted semi-structured interviews. As illustrated by Table 1, we conducted a substantial number of interviews with various actors involved in or affected by soy production. The main criteria for selecting the interviewees was their level of knowledge about the studied policy instruments. During the interviews, we posed questions about how different actors perceived existing framings of the deforestation-land tenure nexus and to what extent the design of instruments effectively addressed land tenure issues. We also inquired about the perceived opportunities and limitations to foster greater HREI. Particularly with civil society representatives, we delved into the strategies they deployed to ensure that land tenure is considered in deforestation policy instruments. All interviews were transcribed and anonymized, with citations translated into English.

We coded the empirical data according to our analytical framework, utilizing the software ATLAS.TI for support. Specifically, we coded the problem frames, actors' interests and power dynamics, and the design of each of the four policy instruments. Furthermore, we coded various forms of bottom-up initiatives aimed at integrating land tenure into existing deforestation instruments. These initiatives included providing input on policy proposals, developing alternatives, and participating in protests. Through the triangulation of written documents and semi-structured interviews, we were able to explore our analytical framework in a context-sensitive manner.

Table 1
Overview of interviewees.

Interviewed entity	Number of persons interviewed
Civil society organizations	40
Local communities affected by soy production	15
Representatives of agribusiness (traders, business associations, soy producers)	12
Certifiers and auditors	5
State agencies in Brazil	19
EU policymakers	3
Researchers	7
Total of interviews	101

4. Domestic policies: the deforestation-land tenure nexus in Brazil's soy sector

The Amazon is key to the Earth's climate system and deforestation in this region may trigger catastrophic climate change and has, therefore, attracted much attention in global policy debates (Pereira and Viola, 2019). Brazil is also among the countries with the greatest land inequality globally, with a Gini index for the distribution of land ownership of 0.73 (Guedes Pinto et al., 2020). A quarter (25%) of all agricultural land in Brazil is occupied by the country's 15,686 largest properties (0.3% of all properties) (ibid.).

In 2022, Brazil produced 42% of global soybeans (372 megatons), and it exported 16 megatons of soybeans and soy meal to the EU-27.[2] Governments of all political ideologies in Brazil have actively implemented policies favoring the agribusiness, such as massive public expenditure on transportation infrastructure, financial policies for supporting large-scale agriculture, tax reductions and subsidized loans (Fearnside, 2001; Baletti, 2014; Sauer, 2018). Indeed, as Svampa (2015) convincingly argued, even progressive governments, such as Brazil's first governments under President Lula da Silva (2003–2010) have not questioned the country's development model based on large-scale exportation of agri-commodities. Furthermore, under the previous presidency of Jair Bolsonaro (2019–2022), environmental policies, deforestation monitoring and law enforcement have been radically dismantled (e.g., Milhorance, 2022). Amazon deforestation has substantially increased over the past few years and in 2021 over 13,000 km^2 of tropical forest was devastated, representing a 22% increase compared to the year before (Climate Observatory, 2022a).

While much literature on deforestation in Brazil has focused on the Amazon, the Cerrado, which can be characterized as a tropical Savannah region, has been much less protected. The Cerrado biome has already lost more than 46% of its native vegetation and between 2002 and 2011 deforestation rates here were 2.5 times higher than in the Amazon (Strassburg et al., 2017). Most of this clearing was caused by soy expansion. Public protected areas only cover 7.5% of this biome (compared with 46% of the Amazon) and under Brazil's Forest Code, only 20% (compared with 80% in the Amazon) of private lands are required to be set aside for conservation (Strassburg et al., 2017).

Deforestation is a multifaceted problem and there are close links between deforestation and other important sustainability problems, such as the dispossession of Indigenous peoples, traditional communities and family farmers (PCTAFs) from the lands they inhabit and use. The lands of PCTAFs cover around a quarter of Brazil's territory and these territories are home to most of the country's biodiversity, the source of much fresh water and important global carbon sinks (Garnett et al., 2018; Sauer et al., 2019). However, PCTAFs in the Amazon and Cerrado biomes often do not possess formal land titles and the expanding agribusiness has pushed many vulnerable actors out of their lands (Baletti, 2014; Torres et al., 2017; Russo Lopes et al., 2021). Problems of land dispossession and land grabbing have further worsened during Bolsonaro's government, due to legal changes and a weakening of law enforcement systems (Russo Lopes and Bastos Lima, 2020).

There are still large areas in the Amazon that are formally characterized as 'undesignated' public lands, despite the important advances in the framework of the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon (PPCDAm, 2004–2018) and the PPCerrado (2009–2018) to declare public land as conservation units and Indigenous territories as well as to improve the monitoring of deforestation and law enforcement (Sparovek et al., 2019). Both programs were abandoned by ex-President Bolsonaro and the budgets of the responsible state agencies were drastically reduced. While the newly elected President Lula Da Silva (2023-ongoing) has re-established these programs, strengthened important state institutions for protecting land tenure rights of PCTAFs and has re-buildt enforcement capacities, the systemic challenges underlying the deforestation-land rights nexus in Brazil will be difficult to overcome.

Brazilian legislation has been criticized for providing incentives to deforest by enabling the use of deforestation as a strategy by private actors to appropriate public lands. Indeed, land grabbing has been fostered by Brazil's domestic policies. First, the recognition of land rights on deforested areas has been regulated by the program 'Legal Land' (*Terra Legal*), which was created by the federal government in 2009. The program's declared objective was to provide titles of previously public lands to small producers and landless people. However, Brazil's 'Legal Land' program has been criticized for promoting land speculation and land grabbing (Campbell, 2014; Torres et al., 2017). This problem has worsened under Bolsonaro's government, as it raised the maximum size of land plots that can be titled from 1500 to 2500 ha and established that one person can benefit from several processes of land formalization. These legal changes have further incentivized the appropriation of lands, deforestation and land concentration in Brazil. The Pastoral Land Commission (CPT) refers to these legislative changes as a "masterpiece in the legalization of crime" (CPT, 2020, 114).

Furthermore, it should also be acknowledged that people displaced by Brazil's expanding agribusiness have often entered remaining forests, the lands of Indigenous peoples or protected areas (Steward, 2007). Relatedly, Russo Lopes and Bastos Lima (2022) have shown that even within land reform settlements composed by smallholders, there is the legal requirement to "improve the land", which is often shown by activities carried out on lands that get deforested.

Second, environmental legislation and in particular the 2012 'Forest Code' (law 12,651) and the rural environmental registry CAR (*Cadastro Ambiental Rural*) have also incentivized land grabbing. Brazil's 2012 forest code establishes that landowners must conserve native vegetation in the extent of 80% in each rural property in the Amazon and 20–35% in the Cerrado. These parcels of land are called 'legal reserves' (*reservas legales*). Moreover, land owners are obliged to register their farm in the CAR database, which allows state and non-state actors to monitor the compliance of producers with the forest code. The CAR registry is, however, self-declaratory and to date less than five percent of all entries have been verified and checked by the respective states (Brites and De Mello, 2021). Despite this lack of verification, the presentation of CAR entries is used as a requirement to access bank loans and to put products on international and global markets. Soy producers have in several cases claimed the lands of PCTAFs as their 'legal reserves' in their CAR entries, thereby engaging in 'green grabbing' and driving the dispossession of vulnerable actors from their lands (Schilling-Vacaflor et al., 2021). For example, in 2020 almost 10,000 CAR entries overlapped with the lands of Indigenous peoples (Oviedo et al., 2021). Besides the possibility to register individual properties in the CAR system, it is also possible to register collectively held lands. However, there has been relatively little use of and governmental support for this module.

Against this background, researchers argue that non-deforestation policies –in order to be effective– should simultaneously tackle land speculation and land grabbing (Bowman et al., 2012; Sparovek et al., 2019). Nevertheless, in the following section, we will show that policy instruments for governing global supply chains have often exclusively focused on deforestation, while overlooking land tenure problems.

5. Transnational governance instruments and policy (dis) integration in relation to the deforestation-land tenure nexus

We now turn to the analysis of hybrid, private and public transnational supply chain governance instruments, with a focus on the question of whether and to what extent they have accounted for the deforestation-land tenure nexus.

[2] United States Department of Agriculture, Forein Agricultural Services: https://ipad.fas.usda.gov/cropexplorer/cropview/commodityView.aspx?cropid=2222000&sel_year= 2022&rankby=Production and Agrostat: http://sistemasweb.agricultura.gov.br/pages/AGROSTAT.html. Accessed 18 November 2023.

5.1. Hybrid governance: Soy moratorium and working group on the Cerrado

The Soy Moratorium was initiated in 2006 in response to Greenpeace's campaign 'Eating up the Amazon' (Greenpeace, 2006). The Brazilian Association of Vegetable Oil Industries (ABIOVE) and the National Association of Grain Exporters (ANEC) have led the Soy Moratorium, together with environmental NGOs such as Greenpeace. In 2008, the Brazilian government officially joined the Soy Working Group that was leading this initiative and the Brazilian Institute for Space Research (INPE) supported the monitoring activities of the Moratorium (Gibbs et al., 2015). Due to the government involvement as a member of the Moratorium and its support in the monitoring system, we classified it as a hybrid instrument. Producers planting soy on a recently deforested area in the Amazon after the cut-off date 2008 are identified by satellite data, added to a blacklist and traders block these noncompliant suppliers.

Attempts to halt deforestation have, however, contributed to the leakage of soy production to the Cerrado, where the rules established by the Forest Code are less stringent (Strassburg et al., 2017). Scholars have argued that soy expansion in the Cerrado has increased the pressure on native vegetation and on PCTAFs' access to land and water (Nepstad et al., 2019; Bastos Lima and Persson, 2020). Concerns about environmental deterioration in the Cerrado led to the creation of a new taskforce in 2017, the 'Working Group on the Cerrado' with the aim of expanding the Soy Moratorium to the Cerrado. In this case, soy producers and state representatives participated in the drafting of the initiative, but due to the rejection of soy producers and selected traders to restrict their 'right to deforest', the Cerrado Working Group was abandoned in 2018 without signing any agreement (interviews with Brazilian environmental NGO, March 2020 and April 2022).

While the market exclusion of actors who deforest has widely been celebrated as a successful mechanism for curbing deforestation, PCTAFs have often had a critical perspective on such transnational initiatives. They argue that their demands for more integrated policy approaches have been sidelined in such policy instruments.

5.1.1. Soy moratorium

PCTAFs and grassroots organizations in the Amazon generally perceive large-scale soy production as an environmental and social threat. Land dispossession of rural communities has been a key concern:

> Many communities already disappeared in consequence of the infinite soy farms. In others, the dispossession has been gradual and today there are few families left that still resist the intimidation, abuses and threats to push the families out of their lands. (CPT 2006).

Despite resistance against the soy business, organizations such as local workers' unions and the Pastoral Land Commission (CPT) initially participated in meetings for establishing the Soy Moratorium. The organizations demanded that the moratorium should not only cover soy, but also other grains that are produced on a large scale (e.g., cotton and maize), prohibit the cultivation of genetically-modified soybeans and include the protection of land rights of rural communities. Furthermore, they proposed that the monitoring of compliance with the moratorium should be based on the verification of land titles and not the registered CAR data (interviews in Santarém, August 2018). Representatives of local organizations remembered that their demands have first been well-received by the environmental NGOs leading the negotiations, but criticized that these organizations were hesitant to put their demands on the table in order to guarantee "the establishment of good relationships between the parties of the Soy Moratorium" (CPT 2006; interviews in Pará, August 2018).

Eventually, the working group on the Soy Moratorium did not take local demands into account and decided to exclusively focus on combatting deforestation. In consequence, grassroots organizations withdrew from the initiative and many local actors perceive that the moratorium has not helped to improve their situation, but rather legitimized an unsustainable business model (interviews in the municipalities of Santarém, Belterra and Mojui dos Campos, August and September 2018).

5.1.2. Working group on the Cerrado

In 2017, in response to extremely high rates of deforestation and forest degradation in the Cerrado, NGOs and soy traders released the 'Cerrado Manifest'and created the Working Group on the Cerrado (GTC).[3] The GTC was led by associations of traders, such as ABIOVE and ANEC, and NGOs like the World Wide Fund for Nature (WWF) and Greenpeace. Soy producers from the Cerrado and public servants also joined the negotiations, while grassroots organizations and most members of the Cerrado Network did not participate (Bastos Lima and Persson, 2020). The GTC discussed mechanisms to exclude soy producers deforesting after a specific cut-off date from the market and to create Payments for Ecosystem Services (PES) for producers that voluntarily conserved more native vegetation than legally required. However, grassroots organizations have argued that it would be unfair to reward large agribusiness actors for conserving the environment, while PCTAFs with sustainable practices would be excluded from PES funds (Bastos Lima and Persson, 2020; Garrett et al., 2022).

Importantly, members of the Cerrado Network (*Rede Cerrado*) have not participated in the GTC. The Cerrado Network is composed by over 50 social organizations and 300 affiliated grassroots organizations and was created during the United Nations conference about environment and development in Rio de Janeiro in 1992. The network has organized several large encounters of PCTAFs and among its objectives is the defense of the biome and the peoples and communities who live in it. It states on its webpage:

> [I]n order to guarantee the sustainability of the Cerrado, it is necessary to give its traditional peoples and communities territorial security, with sustainable and agroecological practices […] The guarantee of land rights allows these groups' access to the natural resources that are essential for survival [.] The agro-ecological practices allow for the conservation of soil and water, in addition to the maintenance of biodiversity.

The Cerrado Network has advocated for the protection of land tenure rights, environmental preservation, and economic alternatives to large-scale agriculture. Members of the Cerrado Network have criticized GTC's agribusiness-friendly nature and exclusive focus on deforestation. A representative of a grassroots organization explained:

> These initiatives […] just say that there should be no deforestation, but there can be soy. They propose to expand soybean production in degraded areas […]. But communities also need this land, small producers, traditional communities, family farmers. They will not have access to this land anymore. Deforestation is discussed, but soy production on land that was grabbed is no problem. If the farm pollutes the environment with its agro-toxics, it does not matter. If the farms are on places that are strategic for recharging aquifers, it is not taken into account. [.] Stopping deforestation is important. But we place the traditional peoples and communities as guardians of this Cerrado heritage. (interview, March 2022).

Eventually, the GTC failed not because of the resistance of local organizations, but because of the strong opposition from business actors against new market exclusion mechanisms (interviews with Brazilian environmental NGO, March 2020 and April 2022).

[3] The Cerrado Manifest can be accessed here: https://d3nehc6yl9qzo4.cloudfront.net/downloads/cerradomanifesto_september2017_atualizadooutubro.pdf(last access: 18 November 2023).

5.2. Private governance: round table on responsible soy (RTRS) certification

Brazil's civil society has been very active in demanding a sustainability transformation, which would drastically change the soy sector. In 2004, over 60 environmental and social NGOs, organized a Soy Platform, which resulted in the drafting of "social responsibility criteria for companies that purchase soy and soy products" (Rios Vivos Coalition et al., 2004). The Platform proposed to prohibit genetically-modified soybeans and the purchase of soy from areas deforested after 2003, and in the Amazon after 1999 (ibid.). To counteract the land dispossession of family farmers, the platform demanded that the land titles of soy farmers should be verified and it should be prohibited to purchase soy from properties that resulted from the occupation of public lands or from areas with ongoing land conflicts. NGOs, trade unions and local governments shall monitor land tenure and land conflicts with the support of satellite images and there should be full transparency about business transactions in the soy chain (ibid.). Each company should buy at least 20% of the total annual soy purchase from family agriculture (ibid.).

Two years after the publication of these criteria, the Swiss retailer COOP, the WWF, the Brazilian soy producer Amaggi and the food manufacturer Unilever created the leading soy certification standard Round Table on Responsible Soy (RTRS, initially called the 'Round Table on Sustainable Soy'). However, the NGOs and companies drafting the standard did neither search for a dialogue with the Brazilian Soy Platform, nor did they take their proposal into account (Hospes et al., 2012). In 2005, RTRS leaders organized a multi-stakeholder meeting in Brazil, wherein only very few grassroots organizations participated and that strongly focused on deforestation (Steward, 2007). Via Campesina Brazil, a movement of peasant organizations struggling for food sovereignty, organized a counter conference to this meeting, to formulate "a response to the industrial agriculture model based on monocultures and genetic engineering" (cit. after Steward, 2007, 115). A few months later, Fetraf-Sul, the only organization representing small farmers in the RTRS initiative, stepped down from the organizing committee, because it didn't feel it could influence the agenda (Schouten et al., 2012). In 2009, 80 organizations signed a letter wherein they criticized the RTRS standard for its lack of stringency, calling for international NGOs to abandon the RTRS (ibid., 47).

The RTRS standard, however, contains provisions that could contribute to protect the rights of PCTAFs affected by soy production. It requires that "legal use rights to the land are clearly defined and demonstrable" and that "in areas with traditional land users, conflicting land uses are avoided or resolved" (RTRS principles 1.2 and 3.2). However, only a minority of soy farms have been certified and usually they have been the ones with higher sustainability standards (interview with Brazilian environmental NGO, April 2022). Moreover, while monitoring of the compliance of farms with non-deforestation principles tends to be more effective, because it is easier to monitor, this certification standard has been rather ineffective to audit the requirement that the certified farm is not involved in land conflicts (Schilling-Vacaflor et al., 2021). Onsite visits on farms have been too short and inappropriate to detect such conflicts. Furthermore, an important limitation of RTRS auditing is that it does not involve field visits to the legal reserves of certified farms, which have often been the areas from which local communities have been displaced or where land conflicts are ongoing, but is confined to production sites. Hence, soy certification has largely focused on deforestation, and thus contributed little to HREI.

5.3. Public regulation: new policies to regulate supply chains from the demand-side

In the light of the shortcomings of voluntary measures to govern global trade, there has been a proliferation of binding regulations that require corporations to exercise human rights and environmental due diligence (HREDD). Human rights due diligence is a core concept in the United Nations Guiding Principles for Business and Human Rights (UNGPs) from 2011 and the OECD Guidelines for Multinational Enterprises have expanded the scope of due diligence to cover environmental issues alike. HREDD policies obligate companies to assess and address the impacts caused by their suppliers and subsidiaries.

As the EU has taken a pioneering role in this area, here we will focus on the EU Regulation on deforestation-free products (EUDR) that was adopted in May 2023 and specifically targets soybeans among other 'forest risk commodities' (cattle, coffee, cocoa, palm oil, rubber), i.e. commodities that are associated with high risks of deforestation (Cowi et al., 2018). The question of whether and how land tenure rights can be integrated has been particularly contested in the policy-making process about this regulation.

In 2018, the European Commission (EC) published a road map to step up EU action against deforestation (EC, 2018). Since the beginning of the drafting process of a deforestation regulation, the European parliament (EP) was active and published reports and resolutions containing legislative recommendations to the EC, wherein the close links between deforestation and land rights were emphasized (see Burkhardt, 2020). The EC disregarded these recommendations, and in 2021 it published a proposal on a regulation with a narrow focus on deforestation, excluding requirements to comply with international human rights (EC, 2021). The exclusive focus of the EC's draft proposal on deforestation and the lack of safeguards to protect land tenure rights has been strongly criticized by civil society organizations from Europe and the Global South, including Brazilian NGOs (e.g., CIDH et al., 2021; Climate Observatory, 2022b). In September 2022, the EP voted to include important human rights measures, such as Indigenous Peoples' and land tenure rights (Fern, 2022). Irrespective of such claims, the adopted EUDR maintains its focus on deforestation and just adds the criterium that imported products need to comply with the legislation of producer countries, including land tenure rights.

To support the implementation of the regulation, the EU has proposed to establish a Forest Observatory to provide state agencies, consumers, and businesses with data on deforestation. Relatedly, our interviews with European and transnational companies involved with soy supply chains from Brazil revealed that they have perceived the lack of data on complex human rights issues such as land tenure as an important limitation to their efforts of sourcing more responsibly (interviews with French soy-importing companies, Brazilian business associations, April and June, 2022). To reduce this limitation and show that data on land tenure and other types of human rights violations are already available in Brazil, civil society actors published a report on this topic (May and Ozinga, 2021). NGOs also argued that the monitoring of deforestation would not be sufficient and proposed the creation of a Social Observatory along with the Forest Observatory, arguing, for instance:

> We have been gathering this proposal for the Social Observatory for the European Union, so that we can somehow bring this approach of assessing social impacts to the discussions. Since the proposal from the European Commission focuses on specific environmental issues, it is hard to integrate this other approach […] on the social dimension. We cannot just accept deforestation as the only indicator. (interview, March 2022).

Brazilian NGOs have already established different databases and maps on PCTAFs' lands and ongoing land conflicts that a Social Observatory could draw on.[4]

[4] For instance, the initiative "Tô no Mapa" allows local communities to self-report their lands: https://tonomapa.org.br, accessed 11 October, 2022. The CPT and Apublica record rural conflicts: https://www.cptnacional.org.br/publicacoes/noticias/conflitos-no-campo, accessed 11 October, 2022 and https://mapadosconflitos.apublica.org.

6. Discussion

Our analysis showed that the policy instruments in place for governing Brazil's soy supply chain have had serious limitations in relation to HREI. Activists and grassroots organizations from Brazil have, however, actively challenged such siloed approaches, and demanded a better integration of land tenure rights in the analyzed policy instruments. In the following, we discuss our findings in light of the three interlinked dimensions of policy integration processes.

Policy framing: Our analysis reveals a mismatch between the framing of policy problems by actors leading the development of the instruments and the local development agendas advanced by PCTAFs. The latter ones have been based on more holistic landscape approaches, wherein the protection of land rights and sustainable land use have been seen as necessary pre-conditions for environmental sustainability. In contrast, in the policy instruments, broader sustainability agendas have been narrowed down to an isolated focus on deforestation. Here, the dominant understanding of the policy problem has been that for combatting the urgent problem of deforestation and relatedly the climate crisis, quick, feasible and measurable actions must be taken. Such specialized policy measures are often effective, but tend to produce trade-offs and externalities, as only fragmented parts of more complex problems are addressed (cf. Tosun and Lang, 2017).

Indeed, our study reveals that the examined policy instruments have often failed to acknowledge the multifaceted nature of deforestation problems, whose prevention and reduction requires an integrated approach. An important explanation is that influential actors' have perpetuated siloed policy frames, which are subsequently manifested in the policy instruments, highlighting the interconnectedness of the three dimensions of policy integration.

In response, grassroots organizations and PCTAFs have pointed to unintended negative impacts of zero-deforestation initiatives that do not integrate land tenure. Environmental NGOs have often adopted a pragmatic middle position, and recognized the linkages between deforestation and land tenure, but still prioritized deforestation. A representative of a Brazilian NGO explained:

> [T]he destruction of forests is connected to many other problems. If you make a regulation on zero-deforestation, in part you are also addressing social impacts. It is important to keep deforestation as a major issue, because this is the consensus we can find. It is an easy word for everybody to understand. Everybody can look at the territory and see, ok, we have a problem there […] If you bring too many things into the negotiations, then you will freeze the discussion, because you do not have the tools and all the conditions to monitor the other problems in the same way than deforestation. If we include all kinds of problems […] then we would discuss thirty years more. (interview, April 2022).

This statement embodies a prevalent win-win narrative adopted by environmental NGOs, assuming that halting deforestation will automatically benefit local communities. While it is crucial to recognize that a halt in deforestation is likely to reduce land grabbing and, consequently, yield some positive impacts on local communities (see Spadotto et al., 2021), it is equally important to note that this alone may not be sufficient for effectively addressing the deforestation-land-tenure nexus. In this regard, the availability of reliable data as advanced by civil society organizations, in combination with meaningful consultations with stakeholders and local rightsholders would likely be important steps towards HREI.

The issue with such dominant problem framings, as illustrated by the quote, is that the integration of land tenure into deforestation instruments tends to be deprioritized. This framing has been challenged by representatives of grassroots organizations and PCTAFs, who advocate for holistic approaches and systemic changes and that account for potential trade-offs between their rights and interests and environmental goals.

Actor interests and power: Our findings suggest that the power and interests of different supply chain actors and stakeholders are critical for understanding processes of HREI. Producers and companies involved in soy trade from Brazil are pressured by consumers, environmental organizations and policy-makers from the Global North to address the problem of tropical deforestation in its supply chains. In contrast, there has been little pressure from abroad on business actors to address land tenure issues. This is illustrated by a recent analysis of over 6000 journalistic articles from different world regions related to Brazilian soy, which revealed that the large majority focused on deforestation, while there was little attention on the adverse impacts for PCTAFs (Mempel and Corbera, 2021). It is important to acknowledge that even though land tenure and conflicts, is a central social impact associated with deforestation, it is far from being the only one. Soy production is also associated with other types of human rights impacts, such as water access, agrochemicals, and modern slavery (Russo Lopes et al., 2021). Hence, there is a need for greater HREI also in relation to such problems.

Transnational agribusiness actors have often paid little attention to risks beside deforestation and labor rights. They have often collaborated with environmental NGOs and established agreements for reducing deforestation. By establishing such commitments, companies could lower their reputational risks and present their sourcing strategies as 'sustainable' (Baletti, 2014; Bastos Lima and Persson, 2020).

Against this background, transnational companies and Brazilian producers have been seen as the key actors responsible for protecting forests in existing sustainability governance approaches, or, as the Cerrado Manifest states: "The future of the Cerrado is in the hands of the market".[5] PCTAFs in producing sites have, however, criticized different types of global supply chain instruments for their narrow focus on the role of producers and business actors, arguing that these instruments have not allowed for their influential participation.

For Brazilian NGOs, the focus on tropical deforestation has helped them to get access to international funding. Interestingly, we have, however observed a shift in Brazilian environmental NGOs in recent years to increasingly pay attention to the rights of PCTAFs alongside the aims of forest protection (interviews with environmental NGOs, March and August 2022). An experienced representative of an environmental NGO reflected about recent changes:

> I think that there is an evolution within the environmental movement and NGOs. In Brazil, they have been very much based on deforestation and habitat loss. The movement has strongly emerged after the Rio Summit 92 and I think that only recently it is turning into a socio-environmental movement. […]. So the social agenda is still more discrete and now it is almost a social, cultural and environmental movement, because it has the indigenous agenda, which is very strong. I think that the movement has become more integrated, (interview, April 2022)

This recent shift might partially be explained by new funding schemes in the framework of the 2030 agenda, which is based on the assumption that holistic and rights-based approaches are required to tackle social and environmental issues (Tosun and Leininger, 2017). We might thus witness a window of opportunity for a better articulation between actors and institutions advocating for human rights and environmental protection at different scales and, in consequence, for HREI. However, to foster more integrated approaches it is important to further empower PCTAFs and their allies, as there is a risk that their influence is limited in cases of competing interests with powerful agribusiness actors.

Policy instruments: Our findings show that local actors have rarely been meaningfully involved in the policy-making process and

[5] The Cerrado Manifesto is available here: https://d3nehc6yl9qzo4.cloudfront.net/downloads/cerradomanifesto_september2017_atualizadooutubro.pdf

implementation of policy instruments. While there have been approximations and dialogue between organizations leading transnational instruments on the one side and PCTAFs and grassroots organizations on the other, our study points to a lack of procedures to articulate transnational approaches with local development agendas. Local actors have often criticized transnational governance initiatives for being exclusionary and aligning with the goals of agribusiness actors.

For advancing their territorial agendas, grassroots organizations and PCTAFs have mainly advocated for an improvement of public policies in Brazil. We think that it is important to acknowledge that global supply chain instruments are neither adequate nor sufficient for resolving deep-rooted land tenure issues in Brazil, as this topic falls primarily within the competences of a state (Bartley, 2018).

The Brazilian government has during some periods succeded to improve land governance, but to effectively enforce a land reform, sanction invasions of protected areas and PCTAFs lands, and addressing conflicting claims to land ownership is a significant challenge unlikely to be addressed in the near future in Brazil.

While not being able to resolve historically-grown patterns of land distribution and land use in Brazil, here we argue that global supply chain instruments can more adequately address the deforestation-land-tenure nexus. By recognizing that deforestation cannot be decoupled from land tenure and conflicts, opens up for the inclusion of PCTAF that could continue to advocate for deeper integration of land tenure issues in deforestation instruments. Hence, this points to the interlinked nature of the three dimensions, where policy framing constitutes the first critical step in which the relevance of the deforestation-land tenure nexus is negotiated and contested, which then can justify new forms of collaboration and inclusion of new actors, and lead to changes in the design of policy instruments. This also illustrates that such initial steps to foster HREI can contribute to challenge dominant ideas, which in the longer term could result in more integrated approaches.

7. Conclusion

Whereas previous research into policy integration has focused on the integration of environmental issues into other policy fields at national scales, this study advances the research frontier by studying HREI in sustainability governance of global supply chains. More concretely, we describe how hybrid, private and public governance instruments have often failed to effectively address the deforestation-land-tenure nexus and identify the reasons behind the rather weak policy integration. While global supply chain instruments cannot compensate for the shortcomings of domestic policies, from a human rights perspective they should, at the very least, strive to comprehensively address complex sustainability problems and prevent actions that could worsen existing issues or give rise to new sustainability problems. Even small steps towards HREI could in fact be important for producing more integrated policy frames. Indeed, policy integration theorists remind us not to underestimate the merits of relatively low and/or mainly discursive forms of integration in situations wherein more genuine policy integration is not (yet) politically feasible (Candel and Biesbroek, 2016).

Our study indicates several promising paths for integrating land tenure rights in transnational policy instruments. First, it would be important to support the generation of data. The existence of robust spatial data on deforestation makes it possible to monitor soy producers' compliance with their zero-deforestation commitments, while it has been much more challenging to assess and address complex land tenure issues. However, transnational actors should not just use the complexity of this topic and the lack of data as an excuse for continuing to ignore this problem, but rather strengthen initiatives to collect data on land tenure and other types human rights violations. Our theoretical framework is broad and relevant to analyze other forms of HREI that go beyond the deforestation-land tenure nexus. The general patterns that we identified are also relevant to examine HREI related to other types of cross-cutting environmental and human rights risks, requiring integrated approaches to be adequately addressed.

Second, as attempts for better policy integration largely have come from grassroots organizations and PCTAFs, it would be important to further empower these actors. To date, bottom-up policy integration processes have largely developed in isolation from transnational policy instruments focusing on zero-deforestation. Increased efforts are, therefore, needed to support domestic initiatives in Brazil to build up databases about farms involved in land grabbing and land conflicts, to create effective complaint mechanisms for PCTAFs and to improve data on the location and land use of local communities. Civil society organizations have argued that this kind of data could be used, for instance, for creating black lists and excluding irresponsible companies from markets. Such efforts could also help to tip the power balance in favor of PCTAFs and to help them gaining formal land titles in the future.

Altogether, our findings suggest that a better articulation between local development agendas, including bottom-up attempts of HREI, could untap the potential of creating powerful synergies between the aims of curbing deforestation and protecting the land rights of vulnerable communities and smallholders. Such initiatives could help to build a more coherent set of policy goals and policy instruments targeting the deforestation-land tenure nexus, in order to foster integrated and just forms of development.

CRediT authorship contribution statement

Almut Schilling-Vacaflor: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Writing – original draft, Writing – review & editing. **Maria-Therese Gustafsson:** Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Writing – original draft, Writing – review & editing.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

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