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Contextualizing certification and auditing: Soy certification and access of local communities to land and water in Brazil

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ABSTRACT

The massive expansion of soy production in Brazil has contributed to a loss of access for local communities to land and water, particularly in highly dynamic frontier regions in the Cerrado. Soy certification standards like the Roundtable on Responsible Soy (RTRS) contain principles that are supposed to prevent such problems. In this paper, we examine the extent to which certification and auditing have served to protect local communities' access to land and water in western Bahia state in the Cerrado's Matopiba region. We draw on findings from field research in Brazil and western Bahia, 72 semi-structured interviews with corporate, state and civil society actors, and a systematic analysis of audit reports from RTRS-certified farms in Bahia.

We find that auditing practices are not effective in protecting the rights and access of local communities to land and water due to three inter-related sets of factors: 1) the business-dominated nature of the drafting and content of the RTRS standard, 2) the structural limitations and everyday practices of auditing, and 3) domestic and local contextual factors in Brazil and western Bahia.

This study aims to contribute to a re-thinking and re-assessment of certification and auditing practices and suggests that new approaches are required to govern global commodity chains in a more environmentally just way. We advocate for a locally embedded and community-sensitive perspective in research on certification and auditing, to complement previous research in the fields of critical political economy and sustainability governance.

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1. Introduction

Global land area under soybean production has doubled over the past three decades. The great majority of soy is processed into livestock feed, which underpins the production of meat, fish and dairy products in Europe, China, and elsewhere (Lenschow, Newig, & Challies, 2016; Oliveira & Hecht, 2016). Demand for soy will likely continue to grow, as global consumption of animal-based food products continues to increase (Buckley, Newton, Gibbs, McConnel, & Ehrmann, 2019).

Brazil and the United States are the largest soy producers worldwide, and within Brazil soybeans are by far the leading agricultural commodity in terms of crop area, traded volumes, and

export revenues.³ Soy production in Brazil has attracted much attention from scholars, policymakers and activists due to its association with environmental problems such as deforestation and biodiversity loss (e.g. Barona, Ramankutty, Hyman, & Coomes, 2010; Van der Ven, Rothacker, & Cashore, 2018). Deforestation in the Amazon in particular has attracted significant media coverage because of its important implications for global climate politics (Pereira & Viola, 2019). However, the link between soy and land use change has been much clearer and stronger in the Cerrado's 'Matopiba' region, which covers parts of the states of Maranhão, Tocantins, Piauí and Bahia (see Map 1 below), than in the Amazon (Bastos Lima & Persson, 2020).

The expansion of the agribusiness frontier in Matopiba has also led to increasingly unequal distribution of land, and the alienation of local communities and smallholders from territories they inhabited and used (Nogueira, 2017). Conflicts over water have also massively increased in recent years, especially in the state of Bahia where most large-scale irrigation is located (CPT, 2020). Rights to land and water are critical for local communities in Bahia (and

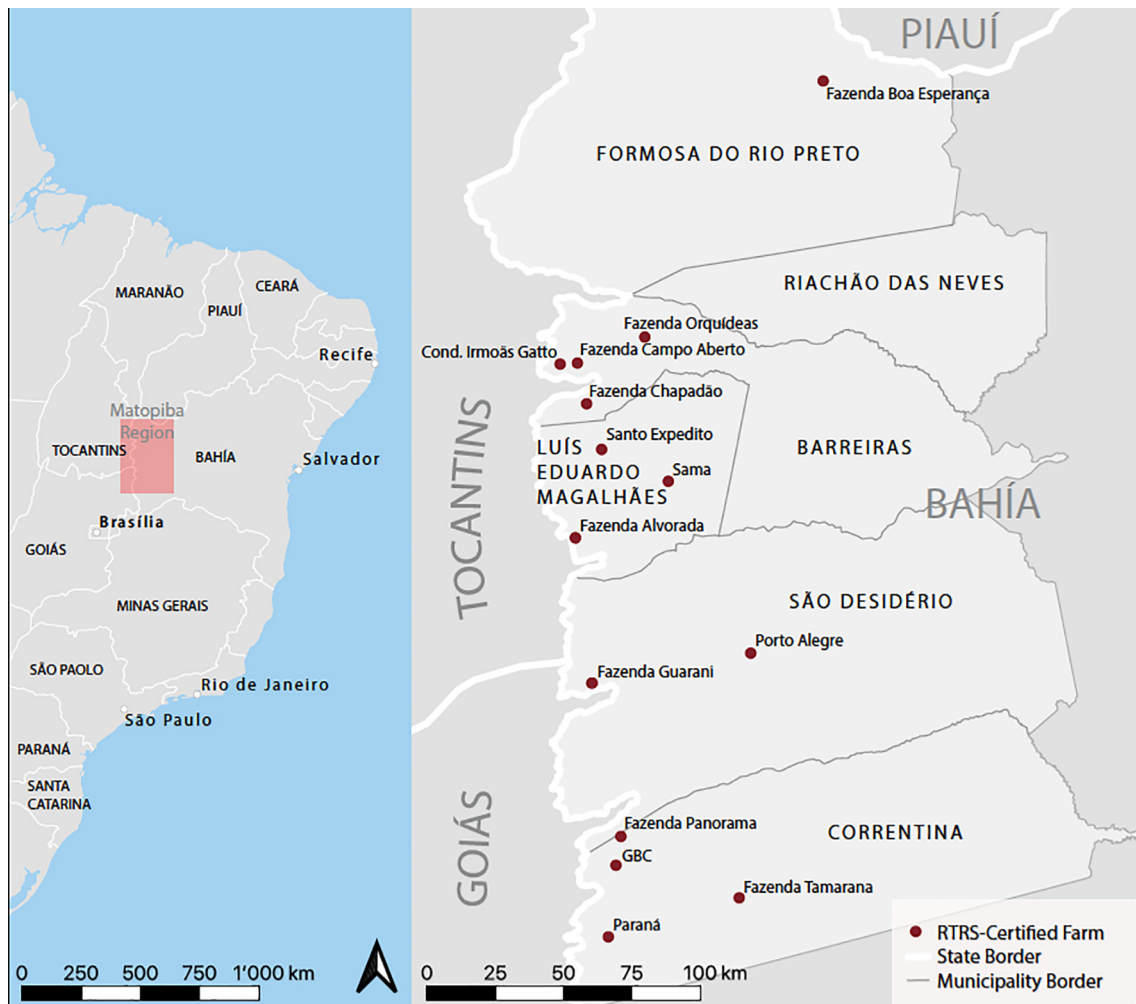
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³ Data from FAOSTAT: <http://www.fao.org/faostat/en/>. Accessed on 20 May 2020.



Map 1. Left: Map of Eastern Brazil wherein the research area is highlighted. Right: RTRS-certified farms in Bahia, data from audit reports available at the webpage of RTRS. (Jonas Weber for the authors).

elsewhere) for realizing a much wider set of rights, including rights to food, health and self-determined development.

In response to the negative externalities of a globalizing soy sector, a variety of mainly private governance arrangements have emerged. These have followed a broader governance response to global agri-food systems, which has fostered voluntary, market-based instruments to address negative social and ecological impacts (Lambin et al., 2014). The main private governance instruments currently governing the soy supply chain from Brazil are the Soy Moratorium,⁴ zero-deforestation commitments from multinational corporations, and private and multi-stakeholder certification standards such as ProTerra and the Roundtable on Responsible Soy (RTRS). Among these initiatives, only the certification standards go beyond combatting deforestation, and seek to safeguard access by local communities to land and water.

To date, little is known about the implementation and auditing of these standards, despite their potential importance for local

⁴ The Soy Moratorium was initiated by the Brazilian Association of Vegetable Oil Industries (ABIOVE) and the National Association of Grain Exporters (ANEC) together with environmental NGOs, in response to Greenpeace's 2006 "Eating Up the Amazon" and has since become a public-private partnership. The Soy Moratorium established a cut-off date after which deforestation in the Amazon was to be prohibited. This date was switched from 2006 to 2008, to align it with the revised Forest Code of 2012. Any producer planting soy on a recently deforested area is added to the soy moratorium list, and embargoed by the Brazilian environmental ministry. Farmers on this list are no longer able to access credit, and retailers are prohibited from buying from them.

development. We seek to address this research gap by drawing on insights from field research in western Bahia, including 72 semi-structured interviews, and a systematic analysis of public audit reports of RTRS certification in Bahia. Our analysis focuses on local communities, assessing the extent to which RTRS certification and auditing have contributed to protecting local communities' access to land and water resources. We also assess how far stakeholders have been able to participate in auditing processes, and whether appropriate communication channels and grievance mechanisms exist. We find that auditing practices are not effective in protecting the rights and access of local communities to land and water due to three inter-related sets of factors: 1) the business-dominated nature of the drafting and content of the RTRS standard, 2) the structural limitations and everyday practices of auditing, and 3) local and domestic contextual factors in Brazil and western Bahia.

After briefly reviewing the literature on certification and private auditing in global agro-commodity chains (Section 2), we describe our methods of data collection and analysis (Section 3). In Section 4, we first provide important information about soy production and land and water politics in Brazil and western Bahia, and then we analyze the drafting process and content of the RTRS standard. Therein, we focus on the principles and criteria relevant to local communities. In Section 5, we present an in-depth analysis of auditing practices in Bahia, examining how RTRS auditors have dealt with: 1) land rights and land conflicts; 2) water use and water

conflicts; and 3) stakeholder involvement. In the final section, we discuss our main findings and their implications for broader debates on private governance, auditing and local development.

2. Agro-commodity certification and private auditing

2.1. Agro-Commodity certification

The current global food regime has been described as a ‘corporate food regime’ or a ‘food from nowhere’ regime, characterized by invisibility and distance, on account of the dominance of complex global agro-commodity chains (McMichael, 2009). According to Dauvergne (2017: 138) “[t]he long, complex supply chains of the world’s leading multinational companies hide environmental and social costs in hundreds of thousands of locations all around the world”, which hampers effective governance. Against this background and in the absence of binding global business regulations, certification schemes, often backed by third-party audits, have been seen as evidence of corporate due diligence and social responsibility in addressing negative externalities (Friedmann, 2005; Sikor et al., 2013).

There is a growing volume of literature examining certification standards in agro-commodity sectors like coffee, biofuels, forestry, palm oil and soybeans. Especially multi-stakeholder initiatives like the Forest Stewardship Council (FSC) and ‘roundtables’ – such as the Roundtable on Sustainable Palm Oil (RSPO), the Roundtable on Sustainable Biomaterials (RSB), various roundtables on sustainable beef and the RTRS – have attracted much scholarly attention (e.g. Cheyns, 2011; Schouten, Leroy, & Glasbergen, 2012; Fortin, 2018; Buckley et al., 2019; Pye, 2019). Roundtables base their legitimacy on their supposed capacity to ensure balanced representation and participation of ‘all categories of stakeholders’ within inclusive processes by means of consensus-oriented dialogue (Ponte, 2014).

However, empirical research into the working of roundtables has challenged their openness and legitimacy, drawing attention to unequal power relationships between standard-setters and retailers from the Global North, and producers from the Global South (Ponte, 2014; Schleifer, Fiorini, & Fransen, 2019). For instance, Glasbergen (2018) studied smallholder engagement with RSPO certification in Indonesia and found that, despite having to make many changes in their production processes, smallholders profited less than all other actors from the added value created through certification. Research has also examined unequal power relations between industry and finance on one hand, and civil society organizations and affected communities on the other, in the drafting and management of sustainability roundtables (see Cheyns, 2011; Elgert, 2012; Schouten et al., 2012; Challies, 2013). Studies of national interpretations of the RSPO standard in Colombia (Marin-Burgos, Clancy, & Lovett, 2015) and Ecuador (Johnson, 2019) drew similar conclusions, observing that local communities and grassroots organizations had been largely absent from these processes.

The effectiveness of private sustainability standards has been widely debated, but there remains a lack of data on how such standards function in specific contexts. For instance, with reference to FSC certification, Van der Ven and Cashore (2018: 104) observe: “After almost twenty-five years of certification, broader evidence of social, environmental and economic impacts remains elusive owing to data challenges and methodological issues”. In this study we aim to overcome these gaps by zooming into certification processes and the auditing of certified farms to find out how they have dealt with principles and criteria that are of particular importance for local communities. This evidence and the identification of the

reasons for respective shortcomings will add substance to wider discussions on the impact of private certification standards.

2.2. Private audits

Audits have come to play an integral role in society with the emergence of non-traditional forms of governing ‘through and with information’ (Cook, van Bommel, & Turnhout, 2016). This has both driven, and been enabled by, a proliferation of procedures and technologies to label, measure, evaluate and compare all kinds of products and processes (Shore et al., 2015). Power (2010) characterized contemporary society as an ‘audit society’, describing the proliferation of standards and auditing of larger industries as an ‘audit explosion’. The auditing processes that are applied to sustainability certification schemes have been conceived as a way to demonstrate and promote corporate accountability in global commodity chains (see LeBaron, Lister, & Dauvergne, 2017). On account of the multi-stakeholder nature of these initiatives, the ‘audit regime’ has become widely regarded as a legitimate mechanism to enforce social and environmental standards in global supply chains (ibid.). Through supposedly independent and objective audits based on verifiable and measurable indicators, accredited third-party auditors assess a firm’s performance against a given standard, in order to grant (or not grant) the certificate (Amundsen & Osmundsen, 2019).

However, research on private auditing has documented systemic flaws inherent in the use of private audit firms to monitor compliance along supply chains. In particular, the independence of auditors has been challenged, as auditors are usually paid by the entity seeking certification (Le Baron, Lister and Dauvergne, 2017). As private auditors have very limited formal investigative powers, their work largely relies on relations of trust and cooperation with the producers to be certified (Hatanaka & Busch, 2008).

The techno-scientific approach to auditing, which demands conversion of complex realities into unambiguous and quantitative measures, has also been broadly criticized for neglecting different forms of knowledge, and for being inadequate for capturing the broad and complex principles contained in certification standards (Amundsen & Osmundsen, 2019; Fortin, 2018). A more comprehensive and inclusive approach to auditing would be time-consuming and costly, and almost certainly mean fewer certified companies. Another criticism is that there has been very little oversight of auditors, who are in general not legally liable for ‘substandard auditing’ (Terwindt & Armstrong, 2019). Given these shortcomings, scholars have argued that audits are designed and conducted in ways that conceal problems rather than bring them to light, and that the ‘audit regime’ disproportionately benefits the multinational companies controlling global supply chains, along with the auditing industry – the organizations and NGOs that profit from the regime (LeBaron et al., 2017).

Previous research in this field has focused on the functioning of the ‘audit regime’, the nature of the ‘audit society’, and ‘audit culture’, as well as on the audit systems of specific certification standards (e.g. Fortin, 2018 on the RSB; Piketty & Drigo, 2018 on the FSC; Pye, 2019 on the RSPO). Much of the auditing literature focuses on technicalities of auditing and on the actors directly involved in certification. Therefore, broader socio-political issues that are of concern for local communities, such as land rights and access to water, are often overlooked (see Vos, 2014).⁵ Our study draws on previous certification and auditing research in the fields

⁵ An exception to this observation is the study by Silva-Castañeda (2012) of the auditing of RSPO-certified palm oil in Indonesia. In this study the author showed how the claims of local communities about the existence of land conflicts were disregarded in audits, while the formal documents presented by companies were considered as valid evidence.

of critical political economy and environmental governance, but we also ground our empirical research in the context of key issues of concern for local communities. We therefore adopt a place-based and problem-centered perspective that foregrounds the serious problems that the expansion of soybean production has created for local communities' access to land and water in western Bahia.

3. Research design and data collection

To explore whether certification and auditing of soy farms serve to protect access to land and water for local communities, and in order to explain why or why not this is the case, we adopted a context-sensitive and community-centered approach to our case study of soy production and auditing practices in western Bahia. Our study will analyze the extent to which private audit processes provide for the substantive rights of local communities to access land and water resources, and their procedural rights to be involved in decision-making on certification. We operationalize the procedural dimension by distinguishing mechanisms for stakeholder participation in auditing, communication between soy producers and communities, and raising and addressing grievances. Our analysis is set in the wider context of certification and auditing as increasingly integral elements of flow-based sustainability governance (Sikor et al., 2013), which is unfolding differently between localities in Brazil in interaction with domestic policy and governance and local issues.

To address our research questions, we draw on three key sources of data: 1) field research in western Bahia in Brazil's Matopiba region; 2) semi-structured interviews with corporate, civil society and state actors; and 3) a systematic analysis of RTRS certification audit reports for soy farms in the state of Bahia. Three field visits were made between June 2018 and March 2020, including field research in western Bahia. Western Bahia was selected for field research because it is the most dynamic agricultural frontier in Brazil (Eloy, Aubertin, Toni, Lúcio, & Bosgiraud, 2016), and an area where conflicts over land and water between large-scale soy producers and local communities have been severe (CPT, 2020; see Section 4 below). Hence, western Bahia is a particularly informative case through which to explore audit practices and processes in soy certification, and their implications for local community rights to land and water.

The International Trade Center (ITC) database on sustainability standards, records more than twenty different certification schemes relevant to the global soy sector.⁶ The multi-stakeholder initiatives RTRS, ProTerra and ISCC (International Sustainability and Carbon Certification) are the most stringent and comprehensive of these standards according to ITC, and include specific principles for protecting the access of local communities to land and water. We focus our analysis on RTRS because it has been the standard with the largest share of certified soybeans (together with ProTerra), and is the only standard that has been transparent regarding its audit procedures by publishing its audit reports. We therefore expect that if private auditing is delivering certification that safeguards community access to land and water, this should be evident in RTRS processes.

We analyzed all publicly available RTRS audit reports relating to farms in our study area. These reports, which applied to fourteen farms (see Map 1), were produced by different auditing organizations, and written in Portuguese. We systematically analyzed the audit reports for evidence as to how auditors had dealt with issues directly affecting local communities, in particular conflicts over land and water. In conducting this analysis, it was essential to also understand specific forms of stakeholder involvement in the audit

process, as well as mechanisms for communication and addressing grievances between local communities and certified producers.

The first author conducted seventy-two semi-structured interviews between June 2017 and March 2020. Most of these interviews were conducted in person and a few were carried out by phone or via video conference. The great majority of interviews were recorded with the consent of the interviewees, but in some cases written notes were taken instead. We spoke with Brazilian agribusiness associations, traders, retailers and processors of soybeans, certified and non-certified soy producers, RTRS personnel, and different private auditing firms. As the impacts related to the soy sector are most heavily felt by people living in the vicinity of farms, field visits and interviews were conducted with family farmers, local communities and grassroots organizations such as rural workers' unions and NGOs working at the community level. We also conducted interviews with environmental and social NGOs in Brazil and Europe. In addition, to understand how Brazilian domestic policies on agriculture, land and water relate to soy production and certification, we interviewed representatives from different Brazilian state agencies (e.g. officials from the Public Ministry, the Ministry of Agriculture, and the Ministry of the Environment). Finally, we attended the RTRS annual meeting in Lille in 2018, and the World Social Forum 2018 in Salvador de Bahia.

We coded the interview data according to our key analytical categories (such as land rights and land conflicts; water use and water conflicts; stakeholder involvement: participation in auditing, communication channels and grievance mechanisms; RTRS standard's drafting, content and management; structural and operational characteristics of auditing; domestic politics, local context) with the support of the software ATLAS.ti. The (anonymized) citations from Portuguese interviews and public audit reports reproduced in this article were translated into English by the authors.

4. Brazilian domestic politics, soy production in western bahía and RTRS certification

4.1. Soy production and socio-environmental politics in Brazil

In 2017, Brazil produced 104 megatons of soybeans, which is almost one third of global production (353 megatons).⁷ Brazil exports the majority of its soy meal to the European Union, while China is by far the largest importer of Brazilian soybeans.⁸ Currently six firms control over 75 percent of the global agricultural inputs market, and the transnational firms ADM (Archer Daniels Midland), Bunge, Cargill, and Dreyfus control 85 percent of soy exports from South America (Clapp & Scott, 2018; Wesz, 2016). They supply soy to processors, who process it into oil, animal feed and other products.⁹ Transparency and traceability represent major challenges in Brazil's soy supply chain and certification has not yet significantly improved this situation (see Section 4.4).

Clapp and Scott (2018) have argued that the dominance of transnational corporations in the agro-food sector has contributed to its socio-environmental unsustainability, by perpetuating an agricultural model that relies on monoculture, genetic modification and massive agrochemical use.¹⁰ Indeed, the expansion and intensification of Brazil's soy sector has directly and indirectly driven deforestation and land use change, biodiversity loss, land dispossession of local communities and family farmers, and environmental

⁷ FAOSTAT: <http://www.fao.org/faostat>. Accessed on 24 May 2020.

⁸ AGROSTAT: <http://sistemasweb.agricultura.gov.br/pages/AGROSTAT.html> and FAOSTAT: <http://www.fao.org/faostat>. Accessed on 10 November 2018.

⁹ For details on the global soy supply chain from Brazil, see <https://trase.earth/floos>. Accessed on 20 May 2020.

¹⁰ Brazil accounts for approximately 20% of global agrochemical use, and more than half of this is used in the production of soy (Bombardi, 2017).

⁶ See <https://sustainabilitymap.org/home>. Accessed on 7 January 2020.

and human health impacts from pesticides (Baletti, 2014; Barona et al., 2010; Bombardi, 2017).

Corporate concentration in the global soy chain has gone hand in hand with increasing land concentration in Brazil. The most recent national agricultural census, in 2017, recorded 235,766 farms producing soybeans in Brazil.¹¹ A comparison of data from the 2006 and 2017 censuses reveals a process of land concentration in the sector, with the number of large farms (>2,500 ha) increasing from 2,070 to 4,144 – i.e., doubling – over the eleven-year period.¹²

Much research has explored how land use policy in Brazil has served the interests of export-oriented agribusiness. However, the needs and interests of smallholders and local communities have remained relatively under-researched. The dispossession and alienation of local communities from their lands and resources is not new in Brazil. Especially since the 1970s, lands that were deemed ‘unoccupied’ or ‘insufficiently occupied’ have been colonized with state support (Hecht 2005). In addition, as in other Latin American countries, deforestation has served as a means to establish rights to land in Brazil. Former President Lula da Silva (2003–2010) established a program for granting titles to smallholders who claimed rights to non-designated public lands (‘terra legal’). Such land claims have often followed forest clearance and conversion to ‘productive’ use (e.g. cattle farming) in certain areas. This program has not only issued fewer titles than planned, but has also favored wealthier landholders and agribusiness, and exacerbated land speculation (see Greenleaf, 2020). Under the presidency of Temer (2016–2018), the government adopted law number 13.465 in July 2017, which increased the maximum area of land that qualifies for regularization (i.e. formalization) of occupied lands to 2,500 ha. In December 2019, President Bolsonaro adopted Provisional Measure 910, which stipulates that a person can benefit from more than one process of land regularization. Furthermore, this policy provides that regularized lands no longer must be physically visited, but can be assessed solely with satellite technology. The above-mentioned regulations on land tenure have fueled deforestation, land concentration and land grabbing in Brazil (Sauer et al. 2019, 2019).

In the Matopiba region, the process of land concentration, interconnected with widespread ‘land grabbing’, has been particularly stark (Eloy et al., 2016). While the average farm size in Brazil in 2017 was 129 ha, the average size in Bahia was over fifteen times larger i.e., 1,946 ha. Land concentration in the area has contributed to conflicts over land and water between large-scale farmers, local communities and family farmers, many of whom have lived there since long before export-oriented agribusiness became established in the area.

4.2. Land conflicts in western Bahia

As a result of the expansion of large-scale agriculture in western Bahia, almost one million hectares of native vegetation (nearly 40 percent of western Bahia territory) were cleared between 2002 and 2010 (Salmona et al. 2016 cit. after Da Silva, Sousa Passos, Eloy, & De Souza, 2018). Most agricultural expansion has occurred in places with native vegetation and/or on lands occupied or used by peasants or traditional people, who are subsumed under the Portuguese term *geraizeiros*.¹³ The *Gerais* is a local name for the Cerrado and *geraizeiros* are the people who have historically inhabited

¹¹ Data from the Brazilian Institute for Geography and Statistics IBGE: <https://sidra.ibge.gov.br/Busca?q=soja>. Accessed on 15 May 2020.

¹² Data from the Brazilian Institute for Geography and Statistics IBGE: <https://sidra.ibge.gov.br/Busca?q=soja>. Accessed on 15 May 2020.

¹³ The term *geraizeiros* encompasses quite heterogeneous local actors such as family farmers and peasants, indigenous communities and traditional communities, which do not necessarily consider themselves as indigenous.

and made use of the land and resources of this place (Nogueira, 2017).

The Cerrado has often been represented as ‘idle’ land, but in fact around 25 million people live there, including numerous indigenous groups and traditional communities, whose livelihoods depend on the use of diverse landscapes and ecosystems (Eloy et al., 2016). The *geraizeiros* typically combine subsistence farming with a range of other activities, such as the harvesting of fruits and plants, and cattle ranching in upland plateau areas. Although most of these people do not possess formal land titles, Brazilian law recognizes their right to occupy and utilize the lands (their *posse*). However, in recent decades most of the upland plateau areas have been occupied by large-scale producers of soybeans and other commodities (e.g., cotton), while the territories used by and accessible to *geraizeiros* have shrunk. Hence, it has been difficult or impossible for most *geraizeiro* communities to uphold their *posse* against the land titles of large producers, even though the latter are often the result of non-transparent and illegal land deals (Nogueira, 2017). An interviewee from a Catholic grassroots organization recalled:

When lands were sold to large farmers in the 1970s and the 1980s, there were always settlements of family farmers, who had lived there for generations. They were forced to leave. Many families just left, but others resisted. Their houses were destroyed, their cattle were expelled, and people were killed. [...] Behind all of this was the pressure from the agribusiness producers who bought land in the region under the condition that it must be uninhabited (interview, 13 August 2018).

As the *geraizeiros* have largely lost access to the plateau areas, they have increasingly been forced to limit their land use to natural reserves close to local rivers, which are not suited to large-scale agriculture (Eloy et al., 2016). Many of these families are now struggling to protect what remains of the biodiverse landscapes that they have relied on for their survival. According to Brazil’s revised Forest Code of 2012, farmers in western Bahia must set aside an area equivalent to 20 percent of their property as a ‘legal reserve’ (*reserva legal*) for biodiversity and forest protection. This means that each soy farmer must be able to prove that they have set aside a portion of their property for conservation purposes. Agricultural production is prohibited on legal reserves. However, legal reserves do not need to be located within or adjacent to a farm, and landholders can buy lands with native vegetation elsewhere and declare these as their legal reserves. Given the context of contested land tenure and the lack of land titles among *geraizeiro* communities, large-scale farmers who have already converted all of the native vegetation on their properties to agricultural production, now increasingly claim the lands inhabited by the *geraizeiros* as ‘legal reserves’ to comply with the Forest Code (interview with officials from the Public Ministry, 17 August 2018). According to our interviews with grassroots organizations in western Bahia, these areas have been at the heart of most of the recent land conflicts. Land conflicts involving local communities in Bahia have grown from 57 documented conflicts in 2011 to 139 conflicts in 2019 (CPT 2018, 2020).

4.3. Water conflicts in western Bahia

The expansion and intensification of large-scale agriculture in western Bahia has also been linked to changes in surface water flows and groundwater resources. The national water agency, Agência Nacional de Aguas (ANA), found that the conversion of native vegetation to large-scale irrigated monocultures has led to reduced surface water flows and groundwater levels in the Matopiba region (ANA (Agência Nacional de Aguas), 2017).

A number of factors have fueled water conflicts in the area. First, areas under monocultural crop production have had less

capacity to filter and retain water for aquifer recharge than areas under native vegetation. This is expected to have long-term impacts on groundwater availability and quality. Second, irrigated land area in Brazil has grown significantly, from 462,000 ha in 1960 to over 6 million hectares in 2018, and most irrigated farms are located in Bahia (CPT, 2018). In 2014, there were 1,400 central pivot irrigation systems in western Bahia (ANA 2016 as cited in Da Silva et al. 2018). The water use of each central pivot is equivalent in volume to that of tens of thousands of local inhabitants. Third, water permits for the use of river water have been granted to large-scale farmers despite a lack of research and understanding of the hydrological and ecological impacts, and weak compliance monitoring and enforcement (Da Silva et al. 2018).

The belief that large-scale agriculture has driven a reduction in water quantity and quality in western Bahia has become widely shared in the region (interviews with rural workers' unions from Barreiras and São Desiderio, 14 and 19 September 2018). In 2019, the CPT recorded 101 conflicts over water in Bahia involving 12,930 families, more than in any other Brazilian state (CPT, 2020). While most of these cases have remained rather low-profile, in 2017 a massive protest movement against water licenses for agribusiness emerged in reaction to water shortage in the municipality of Correntina. Thousands of people from this municipality protested against a new license to an agribusiness corporation granting rights to a volume of water 100 times greater than the allocation for the entire municipality (CPT, 2018). Thereafter, several protest leaders were intimidated and/or prosecuted (ibid.).

In response to growing local resistance, the irrigators' association in western Bahia (AIBA) has financed a study to produce new data about the regions' water sources. Civil society organizations expected the findings of the study to be biased in favor of agribusiness and irrigation interests (interviews with local grassroots organizations, 13 and 19 September 2018). In an effort to deter local resistance to irrigation development, AIBA has also begun to fund small irrigation projects for family farmers (interview with AIBA sustainability manager, 19 September 2018).

4.4. The RTRS standard and local communities: Establishment and management

In response to growing criticism of soy production, in particular regarding its links to Amazon deforestation, the RTRS standard was created (Schleifer, 2017). In March 2005, the World-Wide Fund for Nature (WWF) hosted and coordinated the first meeting of the Roundtable on Sustainable Soy in Brazil, which later was renamed the Round Table on Responsible Soy (RTRS), following debates over whether large-scale soy cultivation can be 'sustainable'. Local communities, grassroots organizations and social NGOs were clearly under-represented in the consultation processes on the RTRS standard in Brazil (Steward, 2007). A representative of a Brazilian NGO who has worked closely with traditional and indigenous communities affected by the soy industry reflected:

I remember when the RTRS initiated their first consultation meetings in Brazil. At that time, we had internal discussions on whether we should participate. We decided not to do so, because participation in the meeting was expensive and everything was organized in a way that excluded the representation of the interests of local communities. For instance, the main language of the meetings was English (interview with a representative of a Brazilian NGO, 5 March 2020).

Due to the under-representation of affected communities and the business-oriented nature of the RTRS process, Via Campesina, the international peasant's movement, organized a protest event against this standard in Brazil (Steward, 2007). Many of our interviewees from grassroots organizations shared a critical perspective on RTRS certification. While acknowledging that certified produc-

ers might be more responsible in relation to certain issues (e.g. pesticide storage, waste recycling, employee safety), they often rejected large-scale soy production in principle, arguing, for instance:

The major impact of soy production has been because of its large-scale nature. This form of agriculture reduces biodiversity, contributes to land concentration and reduces the capacity of soils to filter and store water [...] even if a soy producer complies with all principles and gets certified, this system cannot be sustainable. (interview with a representative of a Brazilian grassroots organization, 13 September 2018).

Cheyns (2011) discussed the absence of smallholders and local communities from RTRS regular meetings, while noting a predominance of industry, trade and finance stakeholders. Indeed, in 2019 civil society only accounted for 12 percent of all RTRS members.¹⁴ Although RTRS voting rules give equal weight to each of its three 'chambers' (i.e., industry, trade and finance; civil society; and producers), power asymmetries between these chambers have been marked, and decision-making has favored the interests of transnational agricultural input providers and retailers (interview with WWF Germany representative, 27 March 2018).

Global production of RTRS certified soybeans increased from 1.2 megatons in 2013 to 4.5 megatons in 2018, of which Brazil accounted for 3.9 megatons (RTRS 2019). This quantity, however, only represented approximately four percent of the country's total soy production (ibid.). As soy is to a great extent a 'hidden commodity' that is mainly used as animal feed, the demand for certified soybeans has been rather low overall, and RTRS has had problems with high surplus production. In 2018, 2.8 megatons of RTRS-certified soy were sold, of which almost 90 percent were purchased by importers based in Europe (ibid.).

The greatest share of RTRS soybeans has been certified under the weakest form of traceability, termed 'book and claim' (RTRS 2019). In this model there is no physical connection between the soybeans bought by an importer and the certified farms; instead, certified products are traded on digital platforms that do not track points of origin (Mol & Oosterveer, 2015). Importers buy soy from the global non-certified market, while directly paying price premiums to certified Brazilian producers. Only 11 percent of Brazilian certified soybeans were sold through the 'mass balance system' (RTRS 2019), wherein the traded volume of a certified product is administratively monitored and traced along the entire value chain to ensure the downstream volume equals the upstream volume of certified production (Mol & Oosterveer, 2015). Given the lack of traceability of soybean flows 'from farm to fork', private audits assume a crucial role, as they are supposed to reassure importers of compliance on the part of farms and the sustainability of production.

4.5. The content of the RTRS standard

The RTRS standard is concerned with 'good conduct', but it remains fully compatible with the expansionist and monocultural logic underlying the global soy commodity chain and the dominance of large corporate actors therein. The standard does not aim for systemic change of the way soy is produced, for instance by establishing stringent rules on biodiversity, or by fostering organic or smallholder production. RTRS permits the use of pesticides that are prohibited in the importing countries, the use of genetically modified seeds, and the practice of aerial spraying.

Nevertheless, a close examination of the content and coverage of the RTRS standard reveals that it is relatively comprehensive

¹⁴ <http://www.responsible soy.org/about-rtrs/members/?lang=en>. Accessed on 15 November 2019.

regarding requirements for 'good conduct'. The standard contains the following five main principles: 1) legal compliance and good business practices; 2) responsible labor conditions; 3) responsible community relations; 4) environmental responsibility; and 5) good agricultural practices. In addition, a national interpretation of the RTRS standard, drafted by a national expert group and tested by producers and auditors, provides guidance on auditable principles and criteria specific to Brazil (RTRS 2017).

The main point of contention in negotiations over the standard's content – and the reason why Brazil's largest soy business associations withdrew from RTRS even before the standard was finalized – is related to its principles on 'responsible expansion', which go beyond the requirements of Brazil's Forest Code (see Schleifer, 2017). In the following, however, we focus on those RTRS principles and criteria that are directly relevant for protecting local communities' access to water and land. These are the principles that specifically address issues of land rights and land conflicts, the principles on 'responsible community relations' and those relating to water use and possible water conflicts. Table 1 below provides an overview of the principles and criteria that are the basis for our further analysis, including the guidance principles established in Brazil's national interpretation of the RTRS standard.

5. Auditing practices in western Bahía

5.1. Audit reports and audited farms

The publicly available audit reports on farms from Bahía were produced by three auditing companies, namely Control Union, Foodchain ID, and Schutter Argentina (for detailed information see the online appendix). The reports contain information on three main assessments and eight surveillance assessments carried out between 2012 and 2019. The main assessments are required for certification or re-certification every five years, while the annual surveillance assessments are less rigorous.

Our sample is composed of three 'group' or multi-sited certifications, and one 'individual' certification. According to RTRS, "Group Certification is a mechanism designed to increase access to RTRS certification for smaller producers. Group certification allows group members to share the costs of the certification assessment [...] by applying for a single certificate" (RTRS 2018). However, in fact the average size of the audited farms in our sample (11,825 ha) was six times larger than the average for soy farms in Bahía (1,946 ha).

The auditing process consists of two stages. First, farm documentation and internal reports are checked for completeness and adequacy. Next, site visits are conducted with a random sample of farms, where auditors conduct interviews with farm manager (s) and employees, and inspect facilities on the farms (e.g., storage of agrichemicals, bathrooms, waste management). Auditors also visit stakeholders or organizations in the surrounding area to discuss these actors' experiences regarding the farms. In a group certification, each member of the group should be inspected at least once over the five-year duration of the certificate.

The comprehensiveness and specificity of the different audit reports varies considerably, depending on specific auditors and auditing organizations. Some auditors are more rigorous than others and, depending on their profession (e.g. agronomist, environmental engineer), they tend to pay more attention to issues that fall within their field of expertise (interview with a group leader of certified farms in Matopiba, 20 September 2018).

In its audit report, Schutter Argentina reported 11 instances of non-compliance across the certified farms, including the absence of a baseline and indicators for evaluating the farms' continuous improvement (Argentina, 2012). Going beyond minimum criteria

for compliance, this auditor argued that the farms should be more proactive in the restoration of native vegetation and in the development and use of biological pest control. This report was the only one that contained specific information about consultations with local stakeholders. Interestingly, the farms audited by Schutter Argentina did not hire this auditor again and instead switched to (the apparently less demanding) Control Union.

Control Union is the largest auditor for soybeans in Brazil, and also audits several other certification standards. The Control Union audit reports were comparatively brief, containing almost no farm-specific information, very few points of non-compliance, and mainly generic statements to indicate compliance of the RTRS-certified farms. Foodchain ID also produced relatively brief reports, although these did include specific information about the inspected farms and reported several points of non-compliance, for instance regarding the use of agrichemicals.

With the issuance of a report citing non-compliance with some aspect of the standard, the farmer has a certain timeframe in which to respond and show that appropriate action has been taken to address the reported problems, for instance by establishing an action plan. In interviews with experienced RTRS auditors, they did not recall cases in which the identified points of non-compliance were so significant that the certification was declined or withdrawn (interview with RTRS auditors, 18 July 2018).

5.2. Land rights and land conflicts

The RTRS standard 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). The standard stipulates that communication requirements must be adequate for identifying any disputes with traditional land users and outlines how to proceed in case that land disputes are detected, e.g. by carrying out a "comprehensive, participatory and documented community rights assessment" (Brazilian interpretation of principle 3.1 and principle 3.2.1 of the RTRS standard). However, we find structural and operational limitations regarding the RTRS standard's contribution to protect local communities' access to lands.

As shown above, RTRS certified farms have been much larger than the average soy farms in Brazil and in Bahía. RTRS auditors explained:

If you check the lists of RTRS certified farms there are almost no small farms. In the past we had one group of small farms from Paraná. They got money from Europe and everything was paid for them. But when the project finished the farmers stopped participating. These farms were one to two hundred hectares each and the premium on their soy was neglectable. They could not pay the fees for certification with that money. (interview, 18 July 2018)

The RTRS standard mainly caters to large farms, which are part of a rather unsustainable agricultural system that contributes to processes of land concentration and, in consequence, to the dispossession of local communities from their lands. Such broader systemic issues, however, fall out of scope of the auditors' work.

As mentioned above, the RTRS standard stipulates that land rights must be clear and demonstrable and land conflicts should be avoided. The auditors' assessment of compliance with these principles is primarily based on the documents supplied by audited farmers and on their brief on-site inspections. The auditors first verify a farm's documentation of land titles and check whether the farm is involved in any legal land dispute. However, as mentioned above, formal land titles have proven to be problematic in settings like western Bahía, where existing titles may be the result of forgery, fraud or violent dispossession in the past. Data on *geraizeiro* communities in western Bahía are scarce and these communities usually do not have formal land titles. Hence, there is no

Table 1

RTRS principles and criteria and their national interpretation concerning land, water and stakeholder involvement (authors' own elaboration).

	RTRS Standard Responsible Soy Production 3.1 (2017)	Brazilian National Interpretation of RTRS Standard 3.1 (2017)
Land rights and land conflicts	<p>1.2: Legal use rights to the land are clearly defined and demonstrable: There is documented evidence of rights to use the land (e.g. ownership document, rental agreement).</p> <p>3.2 In areas with traditional land users, conflicting land uses are avoided or resolved.</p> <p>3.2.1 In the case of disputed use rights: a comprehensive, participatory and documented community rights assessment is carried out.</p> <p>3.2.2 Where rights have been relinquished by traditional land users there is documented evidence that the affected communities are compensated subject to their free, prior and informed consent.</p> <p>3.2.3 Procedures are required to respect the rights, customs and culture of indigenous peoples as defined in the United Nations Declaration on the Rights of Indigenous Peoples (2007) and ILO Convention 169 (1989)</p>	<p>Guidance 1.2: Acceptable evidence of legal use rights to land and appropriate methods of proving such rights: deeds, rural property identification, lease contract, court order.</p> <p>Guidance 3.1: Communication requirements must be adequate for identifying any disputes with traditional land users as referred to in 3.2.</p> <p>Guidance 3.2: When applying for certification producers will identify local communities and traditional land users. Traditional land users will provide reasonable proof that they have been exercising use or access rights on the property area or on ecosystem services derived from the area over the last ten years, prior to May 2009. In the case of indigenous communities, articles 14–18 of ILO Convention 169 also apply.</p> <p>Guidance 3.2.1: Description of the aims of community rights assessments</p> <p>Guidance 3.2.3: Checked through public consultation</p> <p>Guidance 5.1.4: When using irrigation, attention should be paid to other potential uses such as household use or use by other food crops and if there is a lack of water, priority should be given to human consumption</p> <p>Guidance 3.1: Communication channels need to use local languages and appropriate means</p> <p>It is important to include interviews with members of the community to evaluate the existence of the communication channels and their appropriateness</p> <p>Guidance 3.1.1: Examples of documented evidence: Information plates/signboards with telephone number of the farm or of persons responsible for receiving or submitting claims or via the local rural workers union</p> <p>The farm notifies the rural workers union of the name of contact person and his/her telephone number for eventual claims</p> <p>3.3.2 Documented evidence of complaints and grievances is maintained</p> <p>Guidance 3.3.2: If the producer receives complaints, he/she is required to send an answer within 30 days of receiving such complaints to offer feedback of reception of such complaint and/or start addressing the issue.</p>
Water use	<p>5.1 The quality and supply of surface and ground water is maintained or improved</p> <p>5.1.4 Where irrigation is used, there is a documented procedure in place for applying best practices and acting according to legislation</p>	
Participation, communication and grievances	<p>3.1 Channels are available for communication and dialogue with the local community on topics related to the activities of the soy farming and its impacts</p> <p>3.1.1 Documented evidence of communication channels and dialogue is available</p> <p>3.3 An effective mechanism for resolving complaints and grievances is implemented and available to local communities, employees and traditional land users</p> <p>3.3.1 The complaints and grievances has been made known and is accessible to the communities and employees</p>	

easy way to check for overlap between the lands inhabited or used by local communities and the soy farms to be certified. In addition, many land disputes are not recognized by the courts, but rather represent social conflicts. The grassroots organization CPT maintains a database of a broad array of land conflicts, which has not yet been systematically consulted in private audits.¹⁵ However, this database only includes reported and open violent conflicts, whereas many land conflicts in western Bahia can be classified as low-intensity or latent conflicts.

Such conflicts could, in theory, be identified through more extensive auditing in the vicinity of soy farms, including through comprehensive consultations or interviews with local organizations. However, as outlined in Section 5.4, our research suggests that consultation with stakeholders has been deficient, as it has often been conducted in an arbitrary and tokenistic manner. Nevertheless, in their reports auditors often repeated the assertion that “during the auditing process no traditional land user was encountered in the area to be evaluated” (see for instance Control Union 2018, 2019).

Another important limitation of RTRS auditing is that it does not involve field visits to the legal reserves of the certified farms, but is confined to production sites. Thus, auditors do not encounter land conflicts in the legal reserves, which are often located far from sites of soy production. As discussed in Section 4.2, the majority of ongoing land conflicts between large-scale agricultural producers and *geraizeiros* in this area have centered on these biodiversity-rich landscapes, which are inhabited by local communities but

claimed by farmers to meet their obligations under the Forest Code. Auditors only assess whether RTRS-certified farms comply with the requirement of holding legal reserves, and do not further investigate whether there are unresolved conflicts with these or claims by local communities.

None of the audit reports that we analyzed mentioned any land conflict. More generally, as land conflicts have usually gone undetected or unacknowledged in RTRS auditing, the related RTRS principles and provisions on how to deal with land conflicts (e.g. by carrying out community assessments) have not been activated to date (interview with RTRS representative from Brazil, 19 March 2019). It is, however, difficult to know whether land conflicts have actually been absent from the audited farms, or whether such conflicts have been overlooked by the auditors due to the limitations outlined above.

5.3. Water use and water conflicts

With regard to water use, the RTRS standard stipulates that “[t]he quality and supply of surface and ground water is maintained or improved” and “[w]here irrigation is used, there is a documented procedure in place for applying best practices and acting according to legislation” (RTRS principles 5.1 and 5.1.4). The Brazilian national interpretation of principle 5.1.4 further provides that “[w]hen using irrigation, attention should be paid to other potential uses such as household use or use by other food crops and if there is lack of water, priority should be given to human consumption”. How do RTRS auditors deal with these issues in a region like western Bahia, where irrigation has expanded dramatically, and water use for large-scale agriculture has been highly contested?

¹⁵ RTRS public audit reports can be accessed here: <https://responsiblesoy.org/public-audit-reports?lang=en>. Accessed on 10 October 2020.

Analysis of the audit reports revealed that several audited farms were seen to be demonstrating good agricultural practices such as control of soil erosion, no-till farming, and rainwater retention. Such practices are considered to support groundwater recharge and help maintain surface water and groundwater quality. In addition, auditors check whether the required legal permits for water use and irrigation are in place. However, as noted above, the state's approach to granting water permits and licenses to large farms in Bahia has been widely criticized as unsustainable and has provoked widespread resistance from organized civil society. Despite these unresolved issues, and a lack of oversight of water conflicts in western Bahia, RTRS auditors continue to certify large-scale soy farms.

5.4. Stakeholder involvement: participation in auditing, communication and grievance mechanisms

The RTRS standard foresees different types of local community involvement: the participation of local stakeholders during the auditing process, communication and dialogue between soy producers and communities, and raising and addressing of grievances and complaints via dedicated mechanisms (RTRS standard's principle 3.1).

With regard to stakeholder involvement in the auditing process, stakeholders are invited to participate in a public consultation phase via the RTRS website prior to any field visit. Auditors explained that these public invitations usually go unacknowledged, and they instead tend to schedule individual meetings with selected stakeholder organizations near the soy farm (interview, 18 July 2018).

Our analysis of the audit reports reveals that in four of the ten assessments no specific stakeholder is listed as having been consulted. Moreover, although the national interpretation of the RTRS standard identifies the rural workers' unions as an important actor to be taken into account, consultation with this organization was only mentioned twice in the reports (Union, 2018; Foodchain, 2019). Auditors explained that in the first years of RTRS certification in Brazil “[a]ll rural workers' unions wanted to be consulted. Now we try to talk with them. We send an invitation and in almost one hundred percent of the cases they do not reply” (interview, 18 July 2018). The *sindicato rural* (i.e., the organization representing soy producers) was consulted three times according to the reports. Other stakeholders that were selectively consulted by auditors are the military police, health centers, schools and educational centers, religious groups and an agency for transportation and tourism.

Exactly how stakeholder consultation should proceed seems to be largely up to the auditors in charge. For instance, in a surveillance assessment carried out by Control Union in 2019, only stakeholders that had directly benefited from corporate social responsibility initiatives of the certified farms were visited. The report states:

In an interview with a nurse from the local health center, we were informed that the audited farm donates money and necessary items [...] In an interview with police officers they informed us that the police station and the gasoline used by the police cars are sponsored by the association of rural producers of which the audited farm is part (Union, 2019).

In another surveillance assessment from 2018, the auditors reported that they contacted a representative of the *sindicato rural* as the only party to the stakeholder consultation, and that this interviewee emphasized the “importance of the professionalization of farms through the certifications” (Union, 2019).

Two interviewees explained that prior to farm visits and inspections, soy producers often make agreements with local stakeholders to ensure that no complaints are voiced (interviews with an auditing organization and a Brazilian environmental NGO, 18 July

2018 and 29 August 2018). In addition, representatives of grassroots organizations explained that they are hesitant to participate in auditing processes, as their participation might contribute to legitimizing an agricultural model that they deeply reject (interview, 14 September 2018).

Asked whether they had ever observed a case where local stakeholders had criticized an audited farm, experienced auditors responded:

We found one problem in the past. We were in a school and the lady we interviewed said ‘Here we only have one problem. The vegetables we cultivate for the children never grow and always die blah, blah, blah’. For us, we thought, ok, this was normal. But then, we went out and an airplane from the farm was just passing above us, above our heads, spraying pesticides. We were in the car, but it was like rain. This was a non-compliance (interview, 18 July 2018).

According to the RTRS standard, communication channels and grievance mechanisms should be in place for the resolution of disputes with local communities. In practice, however, auditors tend to simply check whether the contact details of the audited farmer are made available (phone number, email address) as evidence of appropriate communication channels. Moreover, to confirm that grievance mechanisms are in place, auditors typically verify whether farmers have provided feedback boxes at the entrance to their property and on their websites. The quality of communication between farmers and local communities is generally not assessed. Most audit reports claim that the farmers in question had not received any complaints prior to the audit (Union, 2019; Foodchain, 2019). Similarly, a representative of RTRS Brazil observed that communication channels and grievance mechanisms have mainly been used for the purpose of seeking employment or investment opportunities, rather than for making complaints (interview, 19 March 2019).

There could be numerous reasons for the inadequacies in stakeholder involvement. Among the possible explanations we find that many local communities and grassroots organizations neither know which farms are certified, nor realize that a complaint mechanism exists (interviews with grassroots organization and rural workers' union in Barreiras, 13 September 2018 and 14 September 2018). Certification has not always been a visible process and it is often not apparent from the outside whether a farm is certified or not. The owners of large farms very often do not live on their farms, but rather are entrepreneurs who live in the city. Hence, there use to be a big social distance between local communities or smallholders and large soy farmers. In addition, given the perceived lack of legitimacy of soy certification among local communities and grassroots organizations, these actors tend to be hesitant to get involved with this standard. Moreover, local stakeholders negatively impacted by the activities of large-scale soy producers are usually hesitant to criticize soy farmers, in order to avoid open conflict with their much more powerful neighbors (interview with auditors, 18 July 2018; interview with smallholders, 30 July 2018). Indeed, as assassinations and violence against family farmers and traditional communities have been very common in Bahia and many other places in Brazil, there are real risks associated with laying a formal complaint against a specific farm (CPT, 2020).

Table 2 below summarizes the main findings of our study.

6. Discussion and Conclusion

Previous research has mainly examined the internal workings of the audit regime as such, or the role of private audits in relation to specific certification standards, without focusing on affected local communities. Our study contributes to ongoing debates by emphasizing the importance of embedding analyses of auditing practices

Table 2
Main findings: explaining the shortcomings of RTRS certification to take local communities' access to land and water into account.

	RTRS standard	Auditing system and auditing practices	Domestic and local context
Land rights and land conflicts	<ul style="list-style-type: none"> - Standard allows for large-scale monocultural soy production - Certified farms have been much larger than the national and regional average soy farms - => contribute to land concentration (and at least indirectly to the dispossession of local communities) 	<ul style="list-style-type: none"> - The demonstration of land rights via formal land titles is problematic in a context like western Bahia - Due to a lack of data on local communities and their land use, RTRS principles cannot easily be assessed - Lack of meaningful stakeholder involvement - Auditors do not visit legal reserves, where most land conflicts in western Bahia occur - Auditors check legal permits to water use and irrigation, without taking the related flaws in domestic politics into account - Instead of assuming a precautionary position and irrespective of civil society resistance, auditors justify the granting of certificates for large soy farms with the lack of reliable data on water - Lack of detailed information on stakeholder consultation in audit reports - Few and selective interviews with institutions in the vicinity of certified farms - Auditors check the existence of communication channels and grievance mechanisms, without assessing whether they are adequate and useful 	<ul style="list-style-type: none"> - History of massive land dispossession and contested land tenure in western Bahia - Land conflicts in western Bahia nowadays concentrate on areas declared by farmers as 'legal reserves' - Domestic policies in Brazil favor land concentration and land dispossession of local communities - Water permits for the use of river and subsurface water have been granted to large-scale farmers despite a lack of research and understanding of the hydrological and ecological impacts - Weak compliance monitoring and enforcement of regulations on water use - Increasing civil society resistance against the extensive water use by large-scale farmers - Ambivalent or critical perspective of local grassroots organizations in Brazil towards RTRS certification => many of them are hesitant to participate in auditing - Relationships between soy farmers and local communities inhibit meaningful stakeholder involvement: fears of reprisal in response to criticism; agreements with local stakeholders to ensure that no complaints are voiced.
Water use and water conflicts	<ul style="list-style-type: none"> - Standard allows for water-intensive large-scale production, which reduces infiltration of water and water recharge in western Bahia 		
Stakeholder involvement	<ul style="list-style-type: none"> - Standard includes principles on stakeholder involvement via consultation, communication channels and grievance mechanism, but principles are vaguely formulated and leave much room for interpretation by auditors 		

in specific local-national contexts, and thereby accounting for complex realities, historical injustices, structural sustainability problems, and power relations. The performance of certification standards in terms of addressing negative externalities that manifest in particular places has to be assessed with careful consideration of local conditions. We have sought to put those most severely affected by the expansion of soy production – local communities – at the center of our focus. These local actors have not only been marginalized from the drafting, management and auditing of soy certification standards, but they have also received relatively little attention in research on the governance of global commodity chains.

This study finds that auditing practices in RTRS certification have been insufficient for meaningfully assessing the compliance of farmers with the standard and its provisions concerning local communities. Our findings indicate that three sets of reasons largely explain the shortcomings observed: 1) the business-dominated nature of the drafting and content of the RTRS standard, 2) the structural limitations and everyday practices of auditing, and 3) local and domestic contextual factors in Brazil and western Bahia, which go beyond the scope of certification instruments themselves (see Table 2). Below we briefly discuss each of these aspects.

Our analysis shows that the dominant position of industry, trade and finance stakeholders in the drafting and management of RTRS has contributed to a standard that focuses on 'good conduct' of soy farms, without fundamentally challenging the unsustainable aspects of global soy production and trade. Local communities and grassroots organizations in Brazil have largely shared a rather critical perspective towards RTRS and other soy certification standards, seeing them as instruments that legitimize an agricultural model that they not only reject, but also often encounter as a threat to their access to land and water resources. There has, thus, been a tension in the functioning of the RTRS standard between the unsustainable soy complex that it has supported, and its social principles aiming to protect the rights of local communities.

The auditing of RTRS social principles has, however, mainly focused on mere compliance with established indicators, by collecting thin evidence in order to check the required boxes. This approach has been of limited use in assessing land and water conflicts and stakeholder involvement. In investigating the existence of land conflicts, site visits have not extended to farmers' legal reserves, where most land conflicts have been concentrated, due to the farm-centric logic and focus of auditing practices. In assessing farms' water use, auditors have focused on legal compliance and implementation of good agricultural practices, while neglecting highly political and conflict-laden questions of long-term environmental sustainability and unequal water distribution. With regard to stakeholder involvement, audit reports merely confirm the existence of mechanisms and channels for stakeholder consultation, communication and grievances, without assessing the quality or adequacy of the existing instruments. Some of the limitations described here could perhaps be overcome via design improvements: more rigorous audits including meaningful stakeholder consultation; stronger oversight of auditors and sanctions for clearly deficient audits; visits not only to sites of production, but also to legal reserves; assessment of the quality of communication channels; and the establishment of an independent grievance mechanism.

However, considering the structural and systemic limitations of private audits, it is doubtful whether such improvements will be forthcoming. Indeed, many of them do not seem compatible with an audit system that is profit-driven and characterized by competition between auditors. In addition, global demand for certified soybeans has remained rather low. Transnational retailers and

supermarkets have not been willing to pay higher price premiums, which might be a precondition for funding more rigorous farm assessments (author's notes, RTRS annual meeting 2018). As the RTRS standard leaves much room for interpretation in terms of how to operationalize specific principles and criteria, there has been considerable variability in the comprehensiveness, specificity and transparency of audit reports. The vagueness of principles and criteria, coupled with a lack of oversight of auditing practices, opens the way for a possible weakening of auditing practices over time. Our case study suggests that there may even be a trend towards producers hiring ever less demanding auditors.

With regard to the importance of local and national contexts in analyses of certification and auditing practices, our study finds that soy certification in western Bahía – where land tenure has been unclear and highly contested, and where water use by agribusiness has increasingly fueled conflicts – has been particularly problematic. Standard auditing practices have failed to account for historic and ongoing processes of land dispossession in the region. Progressive requirements, providing for community rights assessments and free, prior and informed consent (FPIC) processes to address land conflicts are meaningless as long as such conflicts go undetected or unacknowledged.

The strong focus of certification schemes on compliance with domestic legislation might not always work in favor of protecting local environments and human rights. The Brazilian case study reveals that when existing policies regularize 'land grabbing' and incentivize land speculation, or grant legal permits for unsustainable and highly unequal water use, compliance with the law might not be a good indicator of 'responsible' production. Even if soy producers would fully comply with domestic laws and the RTRS standard, in places like western Bahía, which face serious sustainability problems related to the expansion of large-scale industrial agriculture and massive water use, these farms could hardly be characterized as 'responsible' or 'sustainable'. Just how certification standards might better account for the gaps between legal compliance on the one hand and environmental integrity and social justice on the other, merits further research and deeper discussion by scholars and policymakers. Our research has shown that implementation of the RTRS principles on meaningful stakeholder involvement tends to be undermined by the (very asymmetric) relationship between soy producers and local communities. Local communities and grassroots organizations have been hesitant to participate in consultations, or to use communication channels or grievance mechanisms, for different reasons ranging from a lack of information, to reluctance to participate in a certification standard that they reject, to fears of possible reprisals in response to criticism. From a regional perspective, certified soybeans still represent a very small part of the large-scale agribusiness that has expanded and consolidated in western Bahía. While it seems that soy certification has neither significantly improved nor worsened the situation of local communities in terms of access to land and water, the question of which alternative approaches might be more effective, remains open.

For instance, several scholars have convincingly argued that integrated landscape planning would be more sustainable than the certification of individual farms (Glasbergen, 2018; Pye, 2019). While this seems promising in principle, we should also recognize that the effectiveness of such jurisdictional approaches, which rely on territorial planning or landscape-scale governance, usually strongly depends on the politics and power relations at work. There is no guarantee that through broader landscape approaches, with state involvement, local communities will be fairly represented and their rights and interests taken into account (see, for instance, Gustafsson & Scurrah, 2019; Bastos Lima &

Persson, 2020). In this context, the perspective offered by Bebbington, Abdulai, Humphreys Bebbington, Hinfelaar, and Sanborn (2018: 6) is applicable – namely that institutions should not be conceived as an independent 'mediating variable', as they are "themselves a product of the same relationships that they mediate and have to be accounted for historically". The extent to which jurisdictional approaches can safeguard local communities' access to land and water in Brazil thus remains an open question deserving of further empirical investigation.

Disputes between local communities aiming to secure and control their territories, and large-scale agricultural producers involved in a global corporate food regime, are evolving on a highly unequal playing field. Therefore, reform of the audit regime needs to be complemented by measures to promote local empowerment. Such initiatives might be led by different types of actors (public, private, civil society) at multiple scales. Examples of potentially helpful initiatives in this direction are the recognition of local communities' land use via a database currently being developed by Brazil's Public Ministry; programs to formalize land titles among *geraizeiros* and to support them in the development of economic opportunities; and new supply chain rules promulgated by importing countries to protect human rights at sites of production. We hope that our insights will help enrich academic and political debates, and encourage approaches to sustainability governance that more effectively integrate social and environmental dimensions. Research that applies a context-sensitive and community-centered approach will help us to better understand the impact of such policy and governance initiatives by providing contextualized and grounded insights into the functioning of transnational sustainability governance on the ground.

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Credit authorship contribution statement

Almut Schilling-Vacaflor: Conceptualization, Investigation, Writing - original draft. **Andrea Lenschow:** Conceptualization, Writing - review & editing, Funding acquisition. **Ed Challies:** Writing - review & editing, Funding acquisition. **Benedetta Cotta:** Writing - review & editing. **Jens Newig:** Writing - review & editing, Funding acquisition.

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.

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Appendix A. Supplementary material

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References

- Amundsen, V. S., & Osmundsen, T. C. (2019). Virtually the reality: Negotiating the distance between standards and local realities when certifying sustainable aquaculture. *Sustainability*, 11(2603). <https://doi.org/10.3390/su11092603>.
- ANA (Agência Nacional de Águas). 2017. "Estudos Hidrogeológicos e de Vulnerabilidade do Sistema Aquífero Uruçuia e Proposição de Modelo de Gestão Integrada e Compartilhada." At: <https://metadados.ana.gov.br/geonetwork/srv/pt/main.home?uuiid=b26a6c8e-af6a-4766-8cb7-ccdaadb3453>.
- Baletti, B. (2014). Saving the Amazon? Sustainable soy and the new extractivism. *Environment and Planning A*, 46(1), 5–25.
- Barona, E., Ramankutty, N., Hyman, G., & Coomes, O. T. (2010). The role of pasture and soybean in deforestation of the Brazilian Amazon. *Environmental Research Letters*, 5(2), 1–9.
- Bastos Lima, M. G., & Persson, U. M. (2020). Commodity-centric landscape governance as a double-edged sword: The case of soy and the cerrado working group in Brazil. *Frontiers in Forests and Global Change*, 3(27). <https://doi.org/10.3389/ffgc.2020.00027>.
- Bebbington, A., Abdulai, A. G., Humphreys Bebbington, D., Hinfelaar, M., & Sanborn, C. (2018). *Governing extractive industries: Politics, histories, ideas*. Oxford: Oxford University Press.
- Bombardi, L. M. (2017). *Geografia do uso de agrotóxicos no Brasil e conexões com a União Europeia*. São Paulo: Universidade de São Paulo.
- Buckley, K. J., Newton, P., Gibbs, H. K., McConnel, I., & Ehrmann, J. (2019). Pursuing sustainability through multi-stakeholder collaboration: A description of the governance, actions, and perceived impacts of the roundtables for sustainable beef. *World Development*, 121, 203–217.
- Challies, E. (2013). The limits to voluntary private social standards in global agri-food system governance. *International Journal of Sociology of Agriculture & Food*, 20(2), 175–195.
- Cheyns, E. (2011). Multi-stakeholder initiatives for sustainable agriculture: Limits of the 'inclusiveness' paradigm. In S. Ponte, P. Gibbon, & P. Vestergaard (Eds.), *Governing through Standards* (pp. 210–235). Houndmills: Palgrave.
- Clapp, J., & Scott, C. (2018). The global environmental politics of food. *Global Environmental Politics*, 18(2), 1–11.
- Control Union. 2018. Relatório de Resumo Público. RTRS Responsible Soy Production Standard. RTRS-CUC-AGR-0067.
- Control Union. 2019. Relatório de Resumo Público. RTRS Responsible Soy Production Standard. RTRS-CUC-AGR-0048.
- Cook, W., van Bommel, S., & Turnhout, E. (2016). Inside environmental auditing: Effectiveness, objectivity, and transparency. *Current Opinion in Environmental Sustainability*, 18, 33–39.
- CPT (2018). *Conflitos no Campo Brasil 2017*. Goiânia: CPT.
- CPT (2020). *Conflitos no Campo Brasil 2019*. Goiânia: CPT.
- Da Silva, A., Sousa Passos, C., Eloy, L. and De Souza, S. 2018. "Water grabbing and expansion of agricultural frontiers". Case study in a Brazilian Savannah Protected Area, State of Bahia. Working Paper, 6th International Conference of the BRICS Initiative for Critical Agrarian Studies.
- Dauvergne, P. (2017). Is the power of brand-focused activism rising? The case of tropical deforestation. *The Journal of Environment & Development*, 26(2), 135–155.
- Elgert, L. (2012). Certified discourse? The politics of developing soy certification standards. *Geoforum*, 43(2), 295–304.
- Eloy, L., Aubertin, C., Toni, F., Lúcio, S., & Bosgiraud, M. (2016). On the margins of soy farms: Traditional populations and selective environmental policies in the Brazilian Cerrado. *The Journal of Peasant Studies*, 43(2), 494–516.
- Foodchain, I. D. (2019). Relatório de resumo público programa de certificação RTRS. *SLC Agrícola*. RTRS-CERTID-AGR-COC-0006.
- Fortin, E. (2018). Repoliticising multi-stakeholder standards processes: The Roundtable on Sustainable Biomaterials' standards and certification scheme. *The Journal of Peasant Studies*, 45(4), 805–824.
- Friedmann, H. (2005). From colonialism to green capitalism: Social movements and the emergence of food regimes. In F. Buttel & P. McMichael (Eds.), *New directions in the sociology of global development*. Amsterdam: Elsevier.
- Glasbergen, P. (2018). Smallholders do not eat certificates. *Ecological Economics*, 147, 243–252.
- Greenleaf, M. (2020). The value of the untenured forest: Land rights, green labor, and forest carbon in the Brazilian Amazon. *The Journal of Peasant Studies*, 47(2), 286–305.
- Gustafsson, M. T., & Scurrah, M. (2019). Strengthening subnational institutions for sustainable development in resource-rich states: Decentralized land-use planning in Peru. *World Development*, 119, 133–144.
- Hatanaka, M., & Busch, L. (2008). Third-party certification in the global agri-food system: An objective or socially mediated governance mechanism? *Sociologia ruralis*, 48(1), 73–91.
- Johnson, A. (2019). The Roundtable on Sustainable Palm Oil's national interpretation process in Ecuador: 'Fitting' global standards into local contexts. *Journal of Rural Studies*, 71, 125–133.
- Lambin, E. F., Meyfroidt, P., Rueda, X., Blackman, A., Börner, J., Cerutti, P. O., et al. (2014). Effectiveness and synergies of policy instruments for land use governance in tropical regions. *Global Environmental Change*, 28, 129–140.
- LeBaron, G., Lister, J., & Dauvergne, P. (2017). Governing global supply chain sustainability through the ethical audit regime. *Globalizations*, 14(6), 958–975.
- Lenschow, A., Newig, J., & Challies, E. (2016). Globalization's limits to the environmental state? Integrating telecoupling into global environmental governance. *Environmental Politics*, 25(1), 136–159.
- Marin-Burgos, V., Clancy, J. S., & Lovett, J. C. (2015). Contesting legitimacy of voluntary sustainability certification schemes: Valuation languages and power asymmetries in the Roundtable on Sustainable Palm Oil in Colombia. *Ecological Economics*, 117, 303–313.
- McMichael, P. (2009). A food regime genealogy. *The Journal of Peasant Studies*, 36(1), 139–169.
- Mol, A. P., & Oosterveer, P. (2015). Certification of markets, markets of certificates: Tracing sustainability in global agro-food value chains. *Sustainability*, 7(9), 12258–12278.
- Nogueira, M. (2017). *Gerais a dentro a for a: Identidade e territorialidade entre Geraizeiros do Norte de Minas Gerais*. Brasília: Mil Folhas.
- Oliveira, G., & Hecht, S. (2016). Sacred groves, sacrifice zones and soy production: Globalization, intensification and neo-nature in South America. *Journal of Peasant Studies*, 43(2), 251–285.
- Pereira, J. C., & Viola, E. (2019). Catastrophic climate risk and Brazilian Amazonian politics and policies: A new research agenda. *Global Environmental Politics*, 19(2), 93–103.
- Piketty, M. G., & Drigo, I. G. (2018). Shaping the implementation of the FSC standard: The case of auditors in Brazil. *Forest Policy and Economics*, 90, 160–166.
- Ponte, S. (2014). 'Roundtabling' sustainability: Lessons from the biofuel industry. *Geoforum*, 54, 261–271.
- Power, M. (2010). *The audit society: Rituals of verification*. Oxford: Oxford Univ. Press [Reprinted].
- Pye, O. (2019). Commodifying sustainability: Development, nature and politics in the palm oil industry. *World Development*, 121, 218–228.
- RTRS. 2019. RTRS Management Report 2018. Available at: <http://www.responsible soy.org/wp-content/uploads/2019/06/IG-2018-ENG-low.pdf> Accessed at 31 May 2020.
- RTRS. 2017. Brazilian National Interpretation of RTRS Standard for Responsible Soy Production. Version 3.1. São Paulo, RTRS.
- RTRS. 2018. RTRS Group and Multi-site Certification Standard Version 3.1.ENG. Available at: <http://www.responsible soy.org/docs/?lang=en> Accessed at 31 May 2020.
- Sauer, S., Leite, A., Oliveira, K., & Shankland, A. (2019). "The Implications of Closing Civic Space for Sustainable Development in Brazil". Mimeo, IDS and ACT. Alliance. UK: Institute of Development Studies.
- Sauer, S., Tubino, N., Leite, A., & Carrero, G. (2019). Governo Bolsonaro amplia a grilagem de terras com mais uma medida provisória. *Boletim da Luta*, 144.
- Schleifer, P. (2017). Private regulation and global economic change: The drivers of sustainable agriculture in Brazil. *Governance*, 30(4), 687–703.
- Schleifer, P., Fiorini, M., & Fransen, L. (2019). Missing the bigger picture: A population-level analysis of transnational private governance organizations active in the Global South. *Ecological Economics*, 164, 106362.
- Schouten, G., Leroy, P., & Glasbergen, P. (2012). On the deliberative capacity of private multi-stakeholder governance: The roundtables on responsible soy and sustainable palm oil. *Ecological Economics*, 83, 42–50.
- Schutter Argentina. 2012. RTRS Informe Resumen Público. RTRS-SCHU-AGR-0004.
- Shore, C., Wright, S., Amit, V., Brown, J., Bruun Jensen, C., Maguire, M., et al. (2015). Audit culture revisited: Rankings, ratings, and the reassembling of society. *Current Anthropology*, 56(3), 431–432.
- Sikor, T., Auld, G., Bebbington, A., Benjaminsen, T., Gentry, B., Hunsberger, C., et al. (2013). Global land governance: From territory to flow?. *Current Opinion in Environmental Sustainability*, 5(5), 522–527.
- Silva-Castañeda, L. (2012). A forest of evidence: Third-party certification and multiple forms of proof—a case study of oil palm plantations in Indonesia. *Agriculture and Human Values*, 29(3), 361–370.
- Steward, C. (2007). From colonization to 'environmental soy': A case study of environmental and socio-economic valuation in the Amazon soy frontier. *Agriculture and Human Values*, 24(1), 107–122.
- Terwindt, C., & Armstrong, A. (2019). Oversight and accountability in the social auditing industry: The role of social compliance initiatives. *International Labour Review*, 158(2), 245–272.
- Van der Ven, H., & Cashore, B. (2018). Forest certification: The challenge of measuring impacts. *Current Opinion in Environmental Sustainability*, 32, 104–111.
- Van der Ven, H., Rothacker, C., & Cashore, B. (2018). Do eco-labels prevent deforestation? Lessons from non-state market driven governance in the soy, palm oil, and cocoa sectors. *Global Environmental Change*, 52, 141–151.
- Vos, J., & Boelens, R. 2014. "Sustainability standards and the water question". *Development and Change* 45(2): 205-230.
- Wesz, V. J. (2016). Strategies and hybrid dynamics of soy transnational companies in the Southern Cone. *The Journal of Peasant Studies*, 43(2), 286–312.