

ORIGINAL ARTICLE

Analyzing the implications of organic standardization and certification in alternative food networks: The capability approach

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Abstract

Although organic standards and certification schemes have a crucial role in ensuring quality, safety, and sustainability within food systems, there is a need to critically analyze their implications on human capabilities within alternative food networks (AFNs). Therefore, this paper draws upon the capability approach to analyze the implications of three governance mechanisms (i.e., third-party, social control, and hybrid certification) on human flourishing within AFNs in Ceará, Brazil. The three cases primarily build on 66 interviews with farmers, consumers, AFN owners and employees, certifying officials, governmental and non-governmental representatives, and researchers. Third-party certification has some positive effects in terms of material, political, and environmental capabilities and many negative effects regarding social/cultural capabilities. Social control certification bolsters material, social/cultural, political, and environmental capabilities for the benefit of farmers and consumers. Hybrid certification increases the material control, political power, social legitimacy, and environmental governance of market intermediaries. The findings can help scholars, practitioners, and policymakers rethink the role of organic standardization and certification in fostering fundamental human capabilities and tackling inequalities within AFNs.

KEYWORDS

alternative food networks, certification, human capabilities, standards

1 | INTRODUCTION

Organic standardization and certification have been primarily adopted to demonstrate the quality and safety of organic foods and, more recently, to ensure the sustainability of organic food systems (Fouilleux & Loconto, 2017). Consumers' requirements for quality and safety are linked to food scares (e.g., mad cow disease) and fears of consuming food with pesticides, hormones, or genetically

modified organisms (Raynolds, 2004). Within this context, consumers have also reacted to sustainability concerns inherent in industrialized and globalized food systems (Gliessman, 2014) and therefore have desired to "make more conscious choices, considering their responsibility for the planet's fate as a whole" (Mann, 2018, p. 511). These trends have contributed to the significant growth of organic food production and consumption (Ishaq et al., 2021), fostering the demand for organic standards and certification schemes globally

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(Willer et al., 2022). Consequently, the adoption of organic standardization and certification becomes legitimate to protect consumers' requirements for quality and safety and a broad set of sustainability goals, such as fair trade, transparency, and ecological protection.

Notably, third-party certification has become a prominent verification system worldwide as it relies on third parties' assessment and evaluation of food quality and safety and overall sustainability based on a set of standards (Montefrio & Johnson, 2019). However, the institutionalization of third-party certification has raised criticisms due to its inherent contradictions (Fouilleux & Loconto, 2017). This institutionalization is governed by a neoliberal logic that induces competition yet reproduces various inequalities (Guthman, 2007), including high implementation and enforcement costs as well as laborious paperwork, especially to the detriment of small-scale farmers (Brix-Asala et al., 2021); marginal improvement of farmers' livelihoods (Glasbergen, 2018); pressure on farmers and farm workers, usually leading them to accept retailers' burdensome requirements and lower prices (Busch, 2011); to name a few. In response to the issues associated with third-party certification, other governance mechanisms based on peer-to-peer and locally focused quality assurance have emerged, thereby allowing smallholders to become officially recognized as organic farmers—for example, participatory guarantee systems (PGSs) (Montefrio & Johnson, 2019).

In a critical review of the literature, De Lima et al. (2021) analyzed the “real taste of sustainability” concerning third-party certification and PGSs, pointing out the need to empirically examine the implications of organic standards and certification schemes, which have posed challenges and contradictions that undermine the sustainability of organic food systems. Analyzing these implications also requires an ethical framework that comprehensively considers the material, social/cultural, political, and environmental dimensions of human life (Kalfagianni, 2014). The capability approach represents such a framework and thus inspires a critical analysis of the extent to which organic standards and certification schemes bolster and hinder human capabilities (Samerwong et al., 2020). These capabilities concern the freedoms of individuals (e.g., farmers and consumers) and their pursuit of what they have reason to value in order to function and flourish (e.g., participate in the standard setting) (Böhm et al., 2022). Additionally, there is a need to investigate the impacts of organic standardization and certification within alternative food networks (AFNs). González-Azcárate et al. (2022) found that the proliferation of third-party certification in AFNs could lead to the conventionalization of these networks, as it emphasizes price premiums and overlooks social and environmental aspects. Yet, this observation requires further validation, particularly considering AFNs of the Global South (Čajka & Novotný, 2022), which struggle to enter specialty organic markets and whose capabilities to function and flourish are often negatively affected (Bellante, 2017; Nelson et al., 2010).

Against this background, this paper posits the following research question: *How do organic standards and certification schemes impact human capabilities within AFNs?* Drawing upon the capability approach, this paper analyzes the implications of organic standardization and certification within AFNs in Ceará, a state located in the Northeast region of Brazil. In order to do so, a case study was carried out as it is

a suitable approach for gaining insights into a complex phenomenon within its real-world context (Yin, 2018). Eight AFNs were purposefully chosen to study how their adopted governance mechanism (i.e., third-party, social control, and hybrid certification) impacted human capabilities. Focusing on three governance mechanisms allowed a comprehensive analysis of the implications of organic standardization and certification within and across the identified AFNs. Furthermore, the case study approach supported the execution of a deductive research design (Ketokivi & Choi, 2014; Schilling & Seuring, 2023), which tested the human capabilities framework developed by Kalfagianni (2014) using data from the studied empirical context. Finally, it is noteworthy that organic regulation in Brazil (and thus Ceará) has experienced clashes between corporate actors, who have political influence and material control over resources, and smallholders, who struggle to access price premiums and face environmental and social inequalities (Blanc, 2009; Blanc & Kledal, 2012; Candiotta, 2018). Therefore, this context offers insightful evidence of the implications of organic standardization and certification within AFNs.

This paper provides a conceptual framework that explains how organic standardization and certification contribute to bolstering and hindering capabilities essential for the flourishing of individuals in AFNs. The framework posits that identifying the human capabilities affected by organic standardization and certification is critical for evaluating related potentials and pitfalls. Therefore, the framework can be highly relevant for practitioners and policymakers who may rethink the standard setting to enable fundamental capabilities and tackle contradictions and inequalities inherent in the assurance system. This paper's key theoretical contributions come from the empirical analysis of human capabilities in the context of agrifood governance and the critical reflections on the outcomes of organic standards and certification schemes within AFNs. Furthermore, this paper opens a pathway for future research to further understand the implications of governance mechanisms and unintended consequences regarding human capabilities and other relevant frames, such as sustainability and corporate social responsibility.

The remainder of this paper is structured as follows. Section 2 presents the literature background, conceptual framework, and research context. The case study approach is outlined in Section 3. This is followed by the findings in Section 4. Section 5 discusses the paper's theoretical, practical, and policymaking implications as well as limitations and future research directions. Section 6 presents the paper's concluding remarks.

2 | LITERATURE BACKGROUND AND CONCEPTUAL FRAMEWORK

2.1 | Organic standardization and certification within AFNs

Organic standardization and certification emerged as an informal and non-hierarchical governance system controlled by farmers, consumers, and other stakeholders at the local level (Arcuri, 2015). Then,

organic standardization and certification became transnational and acquired a tripartite standards regime of governance (TSR), which links standard setting, certification, and accreditation activities (Fouilleux & Loconto, 2017; Hatanaka et al., 2012). Accordingly, standards refer to requirements that organizations must fulfill to achieve specific product or service characteristics (e.g., sustainability) (Loconto & Busch, 2010). Certification is used to enforce the standards adopted by an organization and can be provided by first parties (sellers, e.g., through warranties), second parties (buyers, e.g., through contracts), and third parties (neutral organizations that are not parties to the exchange) (Loconto & Busch, 2010). Accreditation refers to the process by which an authoritative organization gives formal recognition that a particular certifier (usually a third party) is competent to carry out performance checks (Loconto & Busch, 2010).

The role of organic standardization and certification has attracted considerable scholarly attention over the last years (Seufert et al., 2017), primarily due to the implications of agrifood governance on the sustainability of organic food systems (De Lima et al., 2021). Yet, as TSR activities became complex and entrenched with corporate interests, the institutionalization of organic standards and certification schemes still deserves careful scrutiny (Jaffee & Howard, 2010).

Particularly, further research is needed to understand the role of organic standardization and certification within AFNs (González-Azcárate et al., 2022; Higgins et al., 2008). As these bottom-up food initiatives aim to, among other things, reconnect farmers to consumers through closer relationships (Bos & Owen, 2016; Jarosz, 2008), the need for adopting certification decreases (González-Azcárate et al., 2022; Veldstra et al., 2014). Indeed, AFNs resist the institutionalization of industrial methods imposed by corporate actors and represent care-full initiatives that promote alternative ways of organizing and certifying (Busch, 2018; Gliessman, 2014; Phillips, 2019).

Moreover, analyzing the implications of governance mechanisms in AFNs of Global South countries can offer further insights into the challenges AFN actors face to become certified (Bellante, 2017; Si et al., 2015). Hence, as an exemplar case and the context for the empirical analysis, Brazil was chosen due to the heated debate produced by the institutionalization of organic regulation in the country (Blanc, 2009; Blanc & Kledal, 2012; Candiotta, 2018).

However, as mentioned earlier, an ethical framework (i.e., the capability approach) is required in order to critically analyze the implications of organic standards and certification schemes within AFNs. Therefore, the capability approach and the human capabilities framework by Kalfagianni (2014) are employed in this paper. This lens is explained and justified in the following section.

2.2 | A critical analysis of the implications of organic standardization and certification within AFNs: The capability approach

According to Robeyns (2005), the capability approach is a comprehensive normative framework that evaluates individual well-being

and social arrangements, policy design, and proposals for societal change. It is not “a theory that can *explain* poverty, inequality or well-being; instead, it rather provides a tool and a framework within which to *conceptualize* and *evaluate* these phenomena” (Robeyns, 2005, p. 94, emphasis in original). The capability approach was pioneered by Amartya Sen and further developed by Martha Nussbaum (Robeyns, 2005). Their central argument is that justice should not be simply evaluated in terms of the distribution of goods but on how these goods are transformed into the capacity for individuals to function and flourish (Schlosberg & Carruthers, 2010). Capabilities represent the real possibilities of choices that people have and include combinations of functionings (Renouard, 2011). Functionings are the various things people value being or doing, such as being confident, being nourished, or participating in political decisions (Alkire, 2005; Sen, 1999). Thus, the capability approach concerns how an individual can fully and freely function (given what an individual wants and can do or be and that they have reason to value) and whether they have the option to flourish and enjoy a good quality of life (Cornelius & Gagnon, 2004).

Therefore, this paper follows the capability approach and particularly the human capabilities framework by Kalfagianni (2014) to critically analyze organic standardization and certification within AFNs and unveil their implications for different dimensions of human life and flourishing. Accordingly, this framework is comprehensive and allows for a detailed evaluation of the material, social/cultural, political, and environmental capabilities within the context of private governance (Kalfagianni, 2014). Given that private governance includes guidelines, codes of conduct, and standards developed by multinational corporations, multi-stakeholder initiatives, and other international organizations (Graz, 2022), the framework by Kalfagianni (2014) is suitable for analyzing the assurance systems within AFNs in Ceará, Brazil. Table 1 presents the four dimensions of human life and flourishing proposed by Kalfagianni (2014) and related capabilities deductively derived from the reviewed literature.

Based on the discussion above, this paper proposes a conceptual framework for critically analyzing the implications of organic standardization and certification within AFNs. Accordingly, it posits that governance mechanisms in the form of organic standards and certification schemes bolster and hinder human capabilities, as shown in Figure 1.

Thus, the conceptual framework helps structure the empirical analysis and answer the research question of how organic standards and certification schemes impact human capabilities within AFNs. The following section details the research context, where the conceptual framework is applied.

2.3 | Research context

Organic regulation in Brazil was introduced through the Normative Instruction 07 of 1999, established by Law 10.831 of 2003, and further regulated by Decree 6.323 of 2007 (Candiotta, 2018). Decree 6.323 of 2007 established the Brazilian System of Evaluation of

TABLE 1 Deductively derived dimensions of human life and flourishing and related capabilities, based on Kalfagianni (2014).

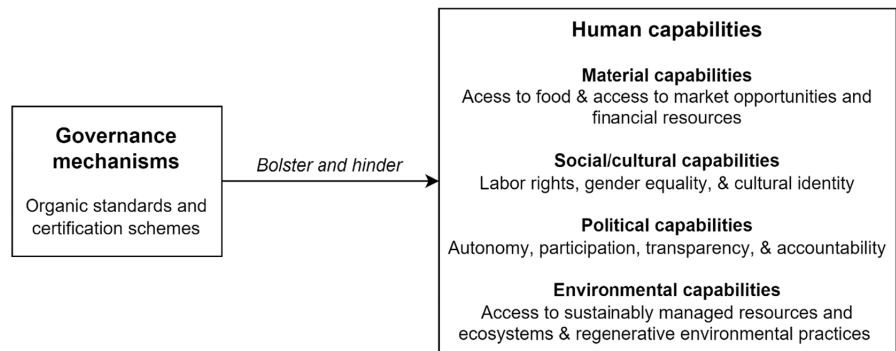
Dimensions of human life and flourishing and related capabilities	Description	References
Material capabilities (ability to access and transact material resources)		
Access to food	Organic standards and certification schemes affect access to food in different ways. While affluent consumers can access diverse organics, low-income consumers may struggle to afford the price premiums of organics. Farmers' access to food depends on the standard requirement: food security over commercialization and vice versa	Fuchs and Kalfagianni (2010); Jacobi et al. (2022)
Access to market opportunities and financial resources	Organic standards and certification schemes impact farmers' access to market opportunities and financial resources. Farmers may access export or specialty organic markets, which offer price premiums and strategic advantages. Yet, farmers may cope with costly and bureaucratic processes and may not always benefit from price premiums, especially if they cannot access export and specialty organic markets	De Lima et al. (2021); Montefrio and Johnson (2019); Nelson et al. (2016)
Social/cultural capabilities (guarantee and protection of social/cultural practices)		
Labor rights	Organic standards and certification schemes impact farmers' labor rights by ensuring, for example, good working conditions, high wages, and job benefits. Regular monitoring based on clear standard requirements is required to ensure that labor rights are protected before and after the certification process	Valkila (2009); Van Rijn et al. (2020)
Gender equality	Organic standards and certification schemes promote gender equality by ensuring the equal participation of women and men farmers. The empowerment of women farmers is needed in contexts whose governance structures produce inequality and discrimination	Karam et al. (2018); Lyon et al. (2010)
Cultural identity	Organic standards and certification schemes foster cultural identity by considering traditional knowledge. Nevertheless, stringent governance mechanisms emphasize technical or expert knowledge to perform the auditing process, thereby excluding traditional knowledge	Altieri and Nicholls (2005); Loconto and Hatanaka (2018)
Political capabilities (freedom to make, appeal, participate in decisions, access transparent information, and hold a responsible party accountable)		
Autonomy	In order to be autonomous, actors need to freely and equally participate in designing and institutionalizing organic standards and certification schemes. Whereas farmers do not often question the institutional arrangement of organic regulation, consumers need to rely on standards to evaluate actions and outcomes and choose products and services according to their preferences	Büthe (2012); Kalfagianni (2015)
Participation	Organic standards and certification schemes enhance participation by ensuring the involvement of stakeholders in the standard setting. In this regard, stakeholders' values, preferences, benefits, and responsibilities must be equally considered	Bergleiter and Meisch (2015); Fuchs et al. (2011); Home et al. (2017)
Transparency	Organic standards and certification schemes promote transparency by provisioning timely, reliable, and comprehensible information on their performance characteristics. In order to enable public scrutiny and visibility in complex environments, transparent standards need to be consistent and democratic	Fuchs et al. (2011); Schewe (2011)
Accountability	In order to ensure the exercise of democratic control over organic standards and certification schemes, internal and external accountability are required. The former refers to responsibility mechanisms (e.g., reporting and peer review), whereas the latter refers to performance checks of the standard by an independent and accredited organization. As these activities require the regular involvement of stakeholders, a cultural tradition of keeping, for example, internal records may be challenging	Fuchs et al. (2011); Nelson et al. (2010)
Environmental capabilities (access to sustainably managed resources and ecosystems and freedom to adopt and foster regenerative environmental practices)		
Access to sustainably managed resources and ecosystems	Organic standards and certification schemes foster access to sustainably managed resources and ecosystems by creating uniform conditions for environmental protection. Yet, environmental inequalities differ for individuals according to gender, race, socioeconomic class, and state of development. Underprivileged individuals are often deprived of basic environmental capabilities	Brix-Asala et al. (2021); Kalfagianni (2014)

TABLE 1 (Continued)

Dimensions of human life and flourishing and related capabilities	Description	References
Regenerative environmental practices	In order to improve the environmental capability of human life in accessing sustainably managed resources and ecosystems, organic standards and certification schemes need to foster regenerative environmental practices. Accordingly, they need to increase food diversity, promote agricultural practices tailored to the local environmental conditions, and bolster agroecology	Andres and Bhullar (2016); Nelson et al. (2010); Timmermann and Félix (2015)

Note: The reader is also referred to Robeyns (2005) for the four dimensions of human life and flourishing and related conceptualization, as proposed by Kalfagianni (2014). The material capability, access to market opportunities and financial resources, and the environmental capability, regenerative environmental practices, were deductively derived from De Lima et al. (2021). The political capabilities, participation, transparency, and accountability, were deductively derived from Fuchs et al. (2011).

FIGURE 1 A conceptual framework for critically analyzing the implications of organic standardization and certification within AFNs.



Organic Conformity, which recognizes three governance mechanisms: third-party certification, PGS, and social control certification. According to Niederle et al. (2020), in third-party certification, control is done by a company that follows the national legislation and adjusts its exigencies to rules concerning specific production systems (e.g., permaculture and organic) or market destination (e.g., export). Third-party certification is the country's most widely adopted governance mechanism. In a PGS, a conformity assessment body is established to perform certification. In this regard, a formally registered association assumes legal responsibility for the certification process. PGSs are concentrated in the South of Brazil (e.g., Ecovida Agroecology Network). In social control certification, a farmers' association or cooperative can constitute an Organization of Social Control with no juridical personality but under the Ministry of Agriculture's supervision. Family farmers are allowed to use the expression "organic product" without any label in direct-to-consumer sales, including food procurement programs (Niederle et al., 2020).

The institutionalization of the abovementioned governance mechanisms has led to "a robust domestic organic market, highly developed organic value chains and supportive, conscious consumers" (Flores, 2021, p. 268). Additionally, food procurement programs such as the Food Acquisition Program (PAA) and the National School Feeding Program (PNAE) bolstered organic food production and consumption. These programs benefit family farmers by paying up to 30% more for organic products. As noted earlier, Brazil (and thus Ceará) offers an ideal context for this research because its organic regulation impacts different capabilities essential for the flourishing

of consumers, farmers, and other individuals. The following section outlines the case study approach.

3 | METHOD

In order to collect empirical evidence on the implications of organic standardization and certification within the context of AFNs in Ceará, Brazil, a case study approach was adopted. This empirical method is suitable for investigating "a contemporary phenomenon in depth and within its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident" (Yin, 2018, p. 15). Following Stuart et al. (2002), this paper employed five steps to structure the research process in a transparent manner, namely (1) defining the research question, (2) case selection and the study protocol, (3) data collection, (4) data analysis, and (5) research quality.

3.1 | Defining the research question

The first step of this case study involved defining the research question (Stuart et al., 2002), as presented in the Introduction. The research question explains how organic standards and certification schemes impact human capabilities in AFNs. The case study approach is thereby justified since it allowed the investigation of the phenomenon through an iterative process (Edmondson & McManus, 2007).

Furthermore, it enabled extending and refining the capability approach and human capabilities developed by Kalfagianni (2014) within a contextual case study (Stuart et al., 2002).

3.2 | Case selection and the study protocol

The second step comprised selecting relevant cases and developing a well-structured study protocol (Stuart et al., 2002). Following Eisenhardt's (1989) recommendations for theoretical sampling, eight AFNs were purposefully selected. First, these AFNs have adopted alternative ways of organizing and certifying; for example, they shortened the food supply chain and established partnerships with consumers, farmers, intermediaries, and other actors at the local level. These characteristics can be thus replicated in other contexts (Jarosz, 2008). Moreover, these AFNs were grouped according to their adopted governance mechanism, hence allowing within- and cross-case analyses. Specifically, one farmers' market adopted third-party certification, while another focused on social control certification. Two dedicated retailers, two e-commerce, and two local food restaurants partnered with third-party and social-control certified farmers. Third-party certification was chosen since it is widely employed in organic food production worldwide (Fouilleux & Loconto, 2017). Social control certification was selected as it can be linked to the non-neoliberal forms of governance pointed out by Guthman (2007): it integrates and promotes the wants and needs of farmers, consumers, and other key actors in ways that other labels could never achieve. Finally, the instances where both third-party and social control certification were considered because this hybrid

arrangement apparently offers numerous benefits arising from the combination of different standards (Montefrio & Johnson, 2019). The selected AFNs are shown in Figure 2.

The study protocol allowed for outlining the research focus and data collection procedures and documenting the trail of evidence (Stuart et al., 2002). Regarding the research focus, careful attention was paid to critically evaluating the implications of organic standards and certification schemes within the identified AFNs. For data collection, the study protocol outlined the procedures and guidelines for conducting the interviews (see Table S1 in the Supplementary Material for the interview questionnaires), collecting archival data, and performing field visits. The trail of evidence was thoroughly documented and stored in MAXQDA Analytics Pro 2020, which offers features and functions suitable for systematically retrieving, coding, and organizing qualitative data (Kuckartz & Rädiker, 2019).

3.3 | Data collection

In case study research, interviews represent the primary data source as they are "a highly efficient way to gather rich, empirical data, especially when the phenomenon of interest is highly episodic and infrequent" (Eisenhardt & Graebner, 2007, p. 28). Therefore, 66 interviews were conducted between September and December 2018 with farmers, consumers, AFN owners and employees, certifying officials, governmental and non-governmental representatives, and researchers (see Figure 2 for the distribution of interviews per case and Table S2 in the Supplementary

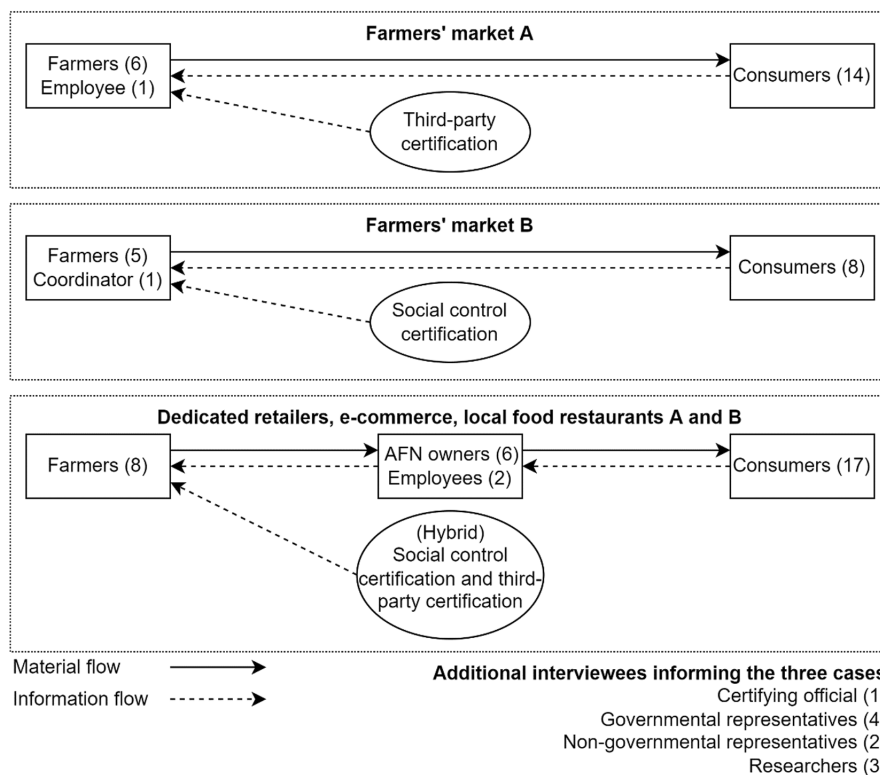


FIGURE 2 Identified AFNs in Cear , Brazil.

Material for further information regarding the interview data sample characteristics). Key interviewees were identified via Ceará's Commission for Organic Production, which gathers public and private representatives of the local organic market. Once the case study research progressed, additional interviewees were identified. The interviews were conducted in the informants' language (Portuguese) and transcribed verbatim. The translation into English was performed later for data analysis.

Additionally, the interviews were triangulated with field notes and archival data (i.e., internal and external reports, organic laws and policies, newsletters, and social media coverage). The triangulation provided supporting evidence on how organic standards and certification schemes bolster and hinder human capabilities in the identified AFNs.

In order to encourage open discussion of sensitive information, anonymity was offered to each interviewee through a consent form (Villena & Gioia, 2018). Consequently, abbreviations will be used to replace the interviewees' identities throughout the paper (see Table S3 in the Supplementary Material for the abbreviations). Saturation was reached when data gathered from the identified cases strongly indicated no new theoretical insights about the AFNs. For example, in farmers' market A, no new theoretical insights were generated from the fourth interview onwards. Nonetheless, two additional farmers and one employee were interviewed to ensure all aspects were thoroughly covered. The same rule was applied to the interviews with consumers and the other identified cases.

3.4 | Data analysis

Qualitative content analysis was employed to examine the collected empirical data (Mayring, 2015). Qualitative content analysis aims to "retain the strengths of quantitative content analysis and against this background to develop techniques of systematic, qualitatively oriented text" (Mayring, 2014, p. 39). This approach enabled the identification of human capabilities in the data set, which were then interpreted and revealed the potentials and pitfalls of organic standardization and certification within AFNs.

The data to be content analyzed were mainly qualitative and came from primary and secondary sources. Primary sources included the interview transcripts and field notes, whereas secondary sources comprised archival data collected for the case study research. The first step of the qualitative content analysis comprised of organizing the collected data into MAXQDA Analytics Pro 2020. Then, the first author and one research assistant content analyzed the data independently. When disagreements between the analysts emerged, they were thoroughly discussed within the research team until a consensus was reached. The analysts employed deductive reasoning when content analyzing the data (Ketokivi & Choi, 2014; Schilling & Seuring, 2023). In this regard, the data were content analyzed against the proposed conceptual framework (Figure 1) and related constructs (Table 1). Empirical evidence for the implications

of governance mechanisms was only content analyzed when the data indicated a related potential or pitfall. In this step, MAXQDA's Code Matrix Browser was used to visualize and retrieve all content-analyzed excerpts containing a potential or pitfall of organic standardization and certification within AFNs. Finally, the findings were presented according to within- and cross-case analyses, thereby populating the proposed conceptual framework in a structured manner.

3.5 | Research quality

This case study employed reliability and validity criteria to ensure research quality (Stuart et al., 2002; Yin, 2018). For data collection, reliability was achieved due to the first author's close interaction with participants, assisted by one research assistant during the interviews. Collecting multiple data sources allowed for triangulation and validity of the data. Regarding qualitative content analysis, reliability was ensured by achieving agreement among the research team in the case of disagreements. In order to ensure internal validity, the proposed conceptual framework provided a theoretical foundation used to analyze and interpret the data accordingly. For external validity, generalization was achieved by carefully drawing from empirical observations to the broader theory.

4 | FINDINGS

This section presents the results of the within and cross-case analyses. First, each governance mechanism (i.e., third-party certification, social control certification, and hybrid certification) and related implications to human capabilities will be discussed in detail per case. Then, the core findings will be further synthesized based on a cross-case analysis.

4.1 | Third-party certification (Farmers' market A)

Farmers' market A is among the most prominent AFNs in Ceará, and its establishment dates to 1997. At the outset, food provenance was ensured through farm visits and consumers' word-of-mouth. Then, the market adopted third-party certification to ensure stability in the organic market due to regulatory requirements, increased competition, and the fact that some consumers feared farmers' noncompliance with the ecological principles of organic agriculture.

In farmers' market A, third-party certification bolstered affluent consumers' ability to access high-quality organics and farmers' access to market opportunities and financial resources (material capabilities). Regarding access to food, an employee shared, "Consumers buy at this farmers' market because they know that food quality is guaranteed" (E1). With regard to access to the specialty organic market, it is worth noting that "Third-party certified farmers can sell their products at a high price" (Certif). "It allows farmers to enter

commercial and export circuits and large market chains, while other certifications struggle to access these markets with other certification schemes" (Res1). Although third-party certification was seen as bureaucratic and expensive, farmers diluted the compliance and implementation costs collaboratively: "As we are part of a farmers' market, it makes it much easier to dilute the costs of certification because we share the entire cost of the auditing among the members. If that were done individually, it would become much more expensive" (F5). "When we face difficulties, we meet with the other members to fill in the certification checklists. We need to know how to use [Microsoft] Excel and do other things. We get together and give technical support to each other" (F2).

Interviewees from farmers' market A barely discussed the potential of third-party certification in terms of social/cultural capabilities. Evidence was linked to general statements that "organic [agriculture] is a type of production that protects the environment and people [...]. Workers must have their rights protected" (F4). And the mechanisms to ensure this protection were indeed overlooked by the certifier.

The analysis revealed that third-party certification bolstered political capabilities, namely autonomy, transparency, and accountability. Conversely, it hindered participation. Farmers had equal autonomy in managing finance, logistics, and marketing. A farmer shared: "I am a farmer and have the responsibility to bring vegetables every week [to this farmers' market]. Since I joined this farmer's market 18 years ago, I have been autonomous on the board of farmers. I had different roles as well. I was once the vice president, director of this, and director of that. Today, I am also the financial director" (F2). Farmers adopted third-party certification to ensure transparency among new consumers, especially those who feared farmers' noncompliance with the ecological principles of organic agriculture. A farmer said that third-party certification "offers a clear vision to consumers who are not familiarized with organic food production and related ecological principles" (F4). Internal accountability was ensured through farm visits. A consumer shared: "My first farm visit was in the 2000s. They always invite us to visit their farms. They schedule weekly group visits. Today, I totally trust them" (C9). As third-party certification is performed by an external party to the exchange, farmers perceived it as beneficial for guaranteeing external accountability. Farmers' and consumers' participation in the standard setting was limited as the certifier fully controls this process (Certif). A researcher shared: "In third-party certification, an auditor conducts various performance checks. If there is something wrong, the farmer will be punished. As farmers do not participate in the standard setting, they do not know why they are punished if something is wrong" (Res1).

The analysis showed that third-party certification contributed to some pitfalls regarding access to sustainably managed resources and ecosystems and regenerative environmental practices (environmental capabilities). The certification process did not consider the farmers' local environmental conditions. The certifier requested farmers to provide an assessment of their farms' water sources and a governmental authorization to use water accordingly. But meeting these requirements was challenging because of the region's

unfavorable climate conditions: "Water consumption is high in the dry season. We have to get water from wells. It has been challenging because our region is semiarid, and the certifier still requires prior governmental approval for water consumption. The auditor does not understand our situation" (F1). Farmers adopted regenerative environmental practices (e.g., agroforestry and organic matter recycling) beyond the certifier's requirements. A farmer commented: "The required [organic] practices are using organic fertilizers and natural windbreaks and avoiding agrochemicals. But we also have agroforestry systems, permaculture, water recycling, among other [environmentally] sustainable practices" (F2). Another farmer shared: "We grow bananas in an agroforestry system" (F3). These findings indicate that third-party certification has a narrow focus on assessing environmental sustainability. It solely focuses on reducing the risks of contamination of soil, water, and food production, caused by pesticides and synthetic fertilizers (Certif, Res1, Res3).

4.2 | Social control certification (Farmers' market B)

Farmers' market B is associated with a rural civil society organization established in Ceará in the 1980s. This organization provided smallholders with technical assistance and social projects. Farmers' market B was established in 2004 to promote agroecology and solidarity economy principles among smallholders. Doing so contributed to smallholders' entry into the local organic market. Smallholders received support to obtain social control certification because of its central focus on engaging consumers and other interested parties to perform peer reviews.

In farmers' market B, social control certification bolstered farmers' food security and access to market opportunities and financial resources (material capabilities), yet some pitfalls were observed regarding its institutionalization. Farmers benefited from their own organic food production to access safe, sufficient, and nutritious food: "I produce agroecological products to feed my family. I also sell my agroecological products in the local market" (F16). "We are motivated and incentivized to produce healthy food for our family and for the families of those who buy our products" (F15). Social control certification has a crucial role in ensuring food security: it aims to improve "sustainability, citizenship, food security, and smallholders' protection" (Gov1). However, the interviewed governmental representatives (Gov1, Gov2, Gov3, Gov4) pointed out the risk concerning the growing interruption of public policies that promote social control certification, agroecology, and small-scale farming in Brazil. This risk negatively affected the farmers' material flourishing, particularly their access to food procurement programs PAA and PNAE: "We had a catastrophic experience with PNAE. Some farmers participated in the program call but did not receive any payment. This issue discouraged the farmers. In addition to discouraging them, this issue undermined their access to financial resources" (Coord). This risk is due to political and economic interests over Brazil's organic regulation and the Ministry of Agriculture, influenced by powerful

actors who stress the aim of leveraging audited organic agriculture, specialty and export markets, and price premiums (Res1).

Social control certification bolstered social/cultural capabilities, particularly gender equality and cultural identity. In contrast, a pitfall emerged regarding labor rights. Interviewees (Coord, Res3, Gov1, Gov3) explained how social control certification ensured gender equality. Accordingly, women and men had an equal voice in the standard setting. Social control certification “considers many fundamental principles within the production process, such as respect for women farmers, recognition of the importance of family farmers, the establishment of relations between production and the local community, and solidarity” (Coord). “Women farmers have a very important role within the family production unit as they help their husbands to add value to products” (Gov1). Farmers mentioned that social control certification enabled them to express their cultural backgrounds and traditional knowledge in organic food production. In this respect, they could also attract clientele interested in local organic products, thereby increasing farmers' access to market opportunities and financial resources. A farmer commented: “Consumers come to this farmers' market to buy and eat my ‘galinha caipira’ [Brazilian country chicken dish]. They appreciate the way I prepare it, which is very traditional. They respect my product and knowledge” (F17). Another farmer shared: “Consumers recognize my work as a brave woman farmer who empowers the agroecology [movement]” (F16). As a pitfall, farmers depended on institutional support to improve their working conditions and technical capacity. They remained informal and were unable to compete with specialized farmers in the specialty organic market (Coord).

Social control certification bolstered autonomy, participation, transparency, and accountability. Autonomy was encouraged among farmers, especially for managing the farmers' market: “Our farmers' market has a partnership with [a rural civil society organization]. Its agricultural technicians support us [with technical knowledge] and transport our products [from the countryside to Fortaleza] in their car. The rest is with us. We need to get together and make decisions” (F16). Social control certification fostered the participation of governmental and non-governmental actors and consumers: “It is a cultural point. It is all about food culture [...]. We sit, talk, and exchange ideas” (C8). In this regard, transparency and internal and external accountability were also ensured. A farmer said that members of her local community often visited her farm to perform peer review: “They certify my agroecological products with their eyes” (F18). Another farmer commented: “Our relationship with consumers is based on closer connections and trust, for example, by knowing the consumer's name. And if consumers visit our farm, they will have coffee, ‘tapioca’ [Brazilian tapioca flatbread], and good conversations with my family” (F15).

The analysis of environmental capabilities revealed that social control certification hindered access to sustainably managed resources and ecosystems. Nevertheless, a potential was observed regarding regenerative environmental practices. Farmers required institutional support to cope with water scarcity: “If I had abundant water in my community, I would have a vegetable garden, grow

spring onions. Now, we have to save water for our own consumption” (F17). As farmers focused on agroecological practices, they could differentiate their produce from farmers who did not express firmly held ecological values: “Thank God we have never had complaints from consumers. They often request our locally produced vegetables, eggs, and free-range chicken” (F18). This was also positively perceived by consumers: “This farmers' market provides farmers and me with benefits. I think that a closer relationship bolsters the agroecology movement and encourages farmers. So, we are here helping each other” (C26). “I have a closer connection with these farmers, and that is very good. In the glow of their eyes, you can see how careful they are with the food we buy. That is my certification, the glow of their eyes. So, I feel confident shopping here because of this atmosphere of carefulness” (C27).

4.3 | Hybrid certification (dedicated retailers, e-commerce, and local food restaurants A and B)

The identified dedicated retailers, e-commerce, and local food restaurants A and B shared a common characteristic: they were established by highly educated entrepreneurs, motivated by the growing consumers' interest in sustainably produced food. These food initiatives were known for reconnecting farmers in the countryside to consumers from high-income locations of Ceará, particularly Fortaleza and nearby urban regions. Farmers focused on improving productivity, whereas entrepreneurs invested in logistics, storage, packaging, and commercialization. Given the high demand for organic and local food, they partnered with third-party and social-control certified farmers.

While hybrid certification bolstered access to food, it hindered access to market opportunities and financial resources (material capabilities). The analyzed AFNs provided consumers with a wide variety of social-control and third-party certified organics, bolstering their access to food: “The variety of organics in supermarkets [in Fortaleza] is low. So, I prefer to come here [dedicated retailer A], as it is closer to my neighborhood. I also go to [dedicated retailer B] [...]. I always prioritize buying from these places I mentioned because they have more organic, local, and healthy options” (C23). In order to access the organic market in Fortaleza and urban regions, farmers accepted the requirements and conditions of the AFNs. While they focused on improving productivity, the AFNs invested in logistics, storage, packaging, and commercialization. Farmers depended on the AFNs' support to improve their production capacity through technical assistance, farmland, and production inputs (Dir). Some farmers were also offered temporary houses (e.g., F9, F11, F13). However, farmers could not fully capture the price premiums offered in Fortaleza and urban regions: “We do not receive many advantages. It is better for the intermediaries. For us, who grow the vegetables, there are not so many advantages [...]. The price is settled [by the intermediary]” (F9). A local newspaper reported that even though the identified AFNs established partnerships with smallholders in the countryside of Ceará, “these smallholders do not

know the value that their products without agrochemicals have in Fortaleza.” The identified AFNs retained a substantial profit margin that, on the other hand, could be retained by farmers if they had direct access to the organic market.

Several pitfalls were observed regarding social/cultural capabilities. On social media platforms, the analyzed AFNs promoted themselves as having a pivotal role in enabling farmers' labor rights, fair wages, gender equality, and cultural backgrounds. An AFN owner said: “We have a strong communication in the social media to show who we are and what we do to empower farmers” (O4). During the field visits, however, a farmer shared that farm workers did not want to be registered according to the Brazilian work law, explaining that they feared losing government support for impoverished and unemployed workers. He concluded: “I faced some legal issues because someone reported me” (F13). Add to this the farmers' low retention of profits, contradicting the idea of “fair wages.” In terms of gender equality, another farmer said his farmers' association attempted to receive institutional support from the government to improve organic food production. In order to do so, there was a legal requirement regarding the equal participation of women and men farmers. After failing the process once, the association successfully obtained support as it “convinced” the granters that “most farmers were men, not women” (F8). The analyzed AFNs considered farmers' cultural backgrounds important for marketing products. AFN owners (O4, O6) said consumers increasingly valued food produced according to cultural and local attributes.

The analysis revealed mixed outcomes regarding political capabilities. Farmers' autonomy was limited, as they depended on the AFNs' support to improve their production capacity. Ensuring the participation of consumers in the setting of both third-party and social control certification was challenging due to the geographical distance between farmers and consumers. In terms of transparency and accountability, at least for third-party certification, the analyzed AFNs disclosed the obtained labels and certificates. But given their partnership with social-control certified farmers, consumers had to rely on the information disclosed on the AFNs' social media platforms and websites. A researcher argued that this information needs to be assessed with a degree of caution: “This is something much more in the scope, let us say, of political narratives than how this is effectively done in the production and transaction processes” (Res1). Another researcher shared: “They [AFNs] may realize that it is not good to commercialize their products without the guarantee that someone visited the farmers' properties [...]. Farmers, as I told you, are economic agents. [Suppose] there is a plague on their products. Farmers want to sell the product as organic, but no one is there [to check the production]. They may think: ‘Oh, I will use pesticides in the evening.’ It is a risk for the other farmers and the entire group [AFNs] [...]. It is not about auditing and punishing but adopting regular control mechanisms to guarantee the organic quality” (Res2).

Hybrid certification partially fostered regenerative environmental practices and hindered access to sustainably managed resources and ecosystems. Farmers only produced what was demanded by the

AFNs: “One of our main strategies is: ‘Look, our consumers are asking for apples. So, grow apples. If you succeed, we will manage to sell them” (O6). On the one hand, this strategy showed that the analyzed AFNs incentivized farmers to design a diversified cropping system. On the other hand, it disregarded food seasonality, leading farmers to find viable ways to cope with the demand for diversified food: “We faced market challenges when we did not have a mix of products. In 2015, we decided to collaborate with other farmers because of the high demand for a mix of organics. We need to respect food seasonality. So, we have to collaborate to offer many products. So, our production got better” (F8). This strategy also disregarded farmers' access to sustainably managed resources and ecosystems. If farmers were not able to produce and provision “apples,” they would be out of the market.

4.4 | Synthesizing the findings: Cross-examination of the implications of organic standardization and certification to human capabilities within AFNs

Following Yin (2018), this section synthesizes the findings above and cross-examines the implications of the three analyzed governance mechanisms (i.e., third-party, social control, and hybrid certification) to human capabilities within AFNs (Table 2). These implications, conceptualized as potentials (✓) and pitfalls (✗), are presented in Table 2 (see also De Lima et al., 2021).

Third-party certification partly bolstered potentials regarding material, political, and environmental capabilities and largely created pitfalls regarding social/cultural capabilities. Hence, third-party certification yielded potentials and pitfalls simultaneously; for example, while excluding agrochemicals from organic food production is highly desired from an environmental viewpoint (i.e., a potential), third-party certification did not promote regenerative environmental practices further (i.e., a pitfall).

Social control certification addressed many of the material, social/cultural, political, and environmental capabilities. The findings revealed potentials for the benefit of farmers and consumers, since social control certification is designed to maximize such potentials. Nevertheless, social control certification in Brazil has faced issues in its institutionalization (e.g., lack of governmental support). Moreover, one can see instances where social control certification produced both potentials and pitfalls; for example, social control certification enabled farmers to access local organic markets (i.e., a potential), but due to a lack of recognition and legitimacy, farmers could not access price premiums in specialty organic markets (i.e., a pitfall).

Hybrid certification mainly increased the material control, political power, social legitimacy, and environmental governance of AFN intermediaries. In contrast, farmers' thriving was negatively affected in all four dimensions of human capabilities. Hybrid certification created trade-offs to the detriment of farmers as market intermediaries controlled resources and profits, allowing them to target local and specialty organic markets. What is more, the main challenge

TABLE 2 The implications of governance mechanisms (i.e., third-party, social control, and hybrid certification) to human capabilities within AFNs.

Governance mechanisms	Material capabilities	Social/cultural capabilities	Political capabilities	Environmental capabilities
Third-party certification	(✓, X) Third-party certification enhances affluent consumers' access to high-quality organics in AFNs (✓) Third-party certification provides farmers with access to price premiums in AFNs (✓, X) Collaboration among farmers in AFNs lowers the laborious paperwork and implementation costs of third-party certification	(X) Third-party certification overlooks farmers' labor rights in AFNs (X) Third-party certification does not consider gender equality in AFNs (X) Third-party certification disregards farmers' cultural backgrounds in AFNs	(✓) Third-party certification fosters farmers' autonomy in the control of AFNs (✓) Third-party certification increases transparency and accountability in AFNs by fostering control mechanisms (e.g., farm visits) and access to accredited labels and certificates (X) Third-party certification limits the participation of farmers and consumers in the standard setting of AFNs	(X) Third-party certification does not consider farmers' local environmental conditions in AFNs (✓, X) Third-party certification does not promote the adoption of regenerative environmental practices (beyond the exclusion or avoidance of pesticides and synthetic fertilizers) in AFNs
Social control certification	(✓, X) Social control certification improves farmers' food security in AFNs (✓, X) Social control certification solely enables farmers to access local organic markets in AFNs	(✓) Social control certification increases gender equality by establishing requirements for equal participation of women and men farmers in AFNs (✓) Social control certification promotes farmers' cultural backgrounds in AFNs (X) With a focus on local markets, social control certification does not encourage the specialization of farmers in AFNs	(✓) Social control certification encourages farmers' autonomy in the operation of AFNs (✓) Social control certification ensures the participation of governmental and non-governmental actors and consumers in AFNs (✓) Social control certification increases transparency and accountability by fostering consumers' peer review in AFNs	(X) Social control certification does not consider farmers' access to sustainably managed resources and ecosystems in AFNs (✓) Social control certification strengthens environmental capabilities by enabling farmers' adoption of agroecology in AFNs
Hybrid certification	(✓) Hybrid certification provides consumers with a wide variety of food (organic, local, agroecological) in AFNs (X) Hybrid certification does not ensure farmers' access to price premiums, especially in AFNs led by intermediaries	(X) Hybrid certification does not ensure farmers' labor rights and fair wages as intermediaries fail to disclose reliable information in AFNs (X) Hybrid certification intensifies gender inequalities as intermediaries fail to ensure the equal participation of women and men farmers in AFNs (✓, X) Hybrid certification, to some extent, protects farmers' cultural backgrounds as intermediaries rely on their identities to promote themselves in AFNs	(X) Hybrid certification limits farmers' autonomy in AFNs led by intermediaries (✓, X) Due to the geographical distance between production and consumption, hybrid certification partially ensures the participation of farmers and consumers in AFNs (✓, X) Hybrid certification partially enables transparency and accountability as intermediaries inadequately record and disclose all production practices in AFNs	(✓, X) Hybrid certification enables farmers in AFNs to design a diversified cropping system if they are given technical support and resources (X) Hybrid certification neglects farmers' access to sustainably managed resources and ecosystems in AFNs

of hybrid certification was distinguishing its various standards in a transparent and participatory manner.

In summary, the case study findings demonstrate that organic standardization and certification within AFNs require careful scrutiny when it comes to their implications for human capabilities. Particularly, they indicate that third-party, social control, and hybrid certification bolster and hinder human capabilities within AFNs in different ways. Therefore, the capability approach offers a critical lens through which the implications of organic standardization and certification can be evaluated accordingly. The theoretical, practical, and policymaking implications of these findings are discussed in detail in the following section.

5 | DISCUSSION

5.1 | Theoretical implications

This case study analyzed the implications of organic standardization and certification within AFNs in Ceará, Brazil, through the capability approach. In doing so, this paper contributes to the literature in four folds, as follows.

First, from an ethical perspective, the findings refine the literature by providing a detailed account of the social and cultural implications of third-party certification (Brix-Asala et al., 2021; De Lima et al., 2021). These implications include pitfalls affecting gender equality, cultural backgrounds, and labor rights. These capabilities are essential for building more inclusive and ethical food systems yet are undermined by the corporatization of governance mechanisms (Busch, 2011, 2018). This aligns with previous calls to unpack issues of gender equality (Karam et al., 2018), culture (Loconto & Hatanaka, 2018), and labor rights (Van Rijn et al., 2020) related to certification schemes particularly affecting AFNs of the Global South. Moreover, the findings corroborate that third-party certification favors an industrial approach disregarding farmers' and consumers' backgrounds and voices (Altieri & Nicholls, 2005; Nelson et al., 2010). Third-party certification contributed to some extent to bolstering material, political, and environmental capabilities. Yet, it produced pitfalls simultaneously. For example, third-party certification offered farmers the advantage of entering specialty organic markets, positively improving their access to price premiums. However, they needed to work together to dilute the certifiers' high implementation costs and burdensome checklist requirements. The findings reinforce the need to critically analyze the implications of third-party certification from different dimensions of human capabilities to uncover its potentials and pitfalls comprehensively.

Second, the findings regarding the potential of social control certification add further evidence to the literature investigating governance mechanisms based on peer-to-peer and locally focused quality assurance (Loconto & Hatanaka, 2018; Montefrio & Johnson, 2019; Nelson et al., 2016). Social control certification allowed farmers to access local organic markets and receive community support. Farmers incorporated agroecological knowledge with the goal of

enhancing environmental and societal impact (Blanc & Kledal, 2012; Timmermann & Félix, 2015). Hence, social control certification bolsters the inclusion of fundamental human capabilities in the standard setting. From an ethical viewpoint, ensuring fundamental human capabilities becomes urgent in a world that has increasingly witnessed hunger, poverty, and ecological degradation (Andres & Bhullar, 2016; Kalfagianni, 2014). Conversely, the findings pinpointed the lack of recognition and legitimacy associated with social control certification. Particularly in the absence of government support, the implementation of social control certification becomes challenged by market-driven schemes (Guthman, 2007). Thus, this creates barriers for smallholders to enter the organic market and raises questions concerning the role of corporate actors in controlling the institutionalization of organic standardization and certification.

Third, the findings extend the literature regarding the implications of hybrid certification (Glasbergen, 2018; Lyon et al., 2010; Montefrio & Johnson, 2019) by considering the role of market intermediaries. Herein, the investigated AFNs combined two governance mechanisms to integrate third-party and social-control certified farmers. Nevertheless, the implications of such an arrangement primarily benefited market intermediaries and mainly hindered the human capabilities of farmers. Hence, hybrid certification is likely to yield mixed effects in terms of human capabilities when intermediaries control the standardization and certification process. In order to increase transparency regarding this process, social media platforms could fulfill the physical gap between production and consumption, where farmers are virtually reconnected to consumers (Bos & Owen, 2016). However, this strategy also needs to be treated with a degree of caution since social media platforms were utilized as mere promotional tools to attract consumers who may lack critical thinking in relation to identifying real activism.

Finally, this paper provides empirical evidence for Kalfagianni's (2014) conceptual work on the impact of private governance on human capabilities. The evidence reinforces the argument that organic standardization and certification need to be critically evaluated from the perspective of human capabilities, especially in Global South contexts, where inequalities emerge to the detriment of smallholders and underprivileged actors. Even though organic standards and certification schemes are designed to tackle inequalities (e.g., food insecurity and environmental issues), the evidence suggests that a critical analysis is still required. This is because the outcomes of agrifood governance in terms of human capabilities can bolster, for example, the ability of affluent consumers to access high-quality organics but, at the same time, intensify the food insecurity of low-income consumers or even farmers—echoing Glasbergen's (2018) provocative title, “smallholders do not eat certificates.”

5.2 | Practical and policymaking implications

This paper can help practitioners, particularly AFN actors, understand how organic standardization and certification bolster and hinder human capabilities. The case study findings offer insights into the potentials and pitfalls of three governance mechanisms (i.e., third-party,

social control, and hybrid certification) within eight AFNs. Therefore, actors adopting any of these governance mechanisms and coming from different AFNs may benefit from those insights by contrasting them with their own practice.

This paper also recommends that AFN actors pay close attention to the implications of organic standards and certification schemes based on the material, social/cultural, political, and environmental dimensions of human flourishing (see Table 2 for an overview). Thus, they may redesign the organic standard and certification scheme in order to bolster fundamental capabilities and avoid pitfalls hindering human flourishing.

Regarding policymaking implications, this paper pinpoints the risk of limiting public policies for sustainable food production and social control certification based on the Brazilian context. Federal government budget cuts and political instabilities have caused disruptions in public policies and food procurement programs (e.g., PAA and PNAE) in the last years, leading farmers to find other ways to commercialize their products directly to consumers (see also Candioto, 2018). Therefore, policymakers should provide (small-scale) farmers with financial incentives and technical training to obtain organic certification, especially social control certification. As noted earlier, social control certification bolsters many material, social/cultural, political, and environmental capabilities. Recently, due to a change in the Brazilian presidency, there has been an increasing expectation that family farming and organic agriculture will be further incentivized. Consequently, a renewed and strengthened organic movement may promote and widely implement social control certification and other alternative modes of governance.

This paper also points out the risk associated with the lobbies of third-party certifiers over the Ministry of Agriculture in Brazil (see also Niederle et al., 2020). This issue raises the concern that the State may be “captured” by corporate actors (Hatanaka et al., 2012). Such actors jeopardize the legitimacy of the organic movement and its true potential for institutionalizing values and principles that can genuinely transform food systems (Jaffee & Howard, 2010). Hence, special attention should be given to alternative modes of governance (like social control certification) due to their role in fostering the democratic and transparent participation of farmers, consumers, and other key actors.

Finally, policymakers should closely monitor the establishment and implementation of third-party certification and the instances where this governance mechanism is combined with social control certification. In this respect, a comprehensive human capabilities framework could be implemented to support the development of standards that foster human life and flourishing. Particularly, policymakers must ensure that marginalized actors are integrated into the standard setting and create mechanisms limiting corporate attempts to create or conceal inequalities.

5.3 | Limitations and future research directions

While this paper offers insights into the investigated body of knowledge, it has limitations that hint at future research directions. The adopted conceptual framework based on human capabilities ensured a structured analysis of the gathered empirical evidence.

Inductive reasoning could be employed to propose new constructs and build theory on the impact of agrifood governance on human capabilities. Theory could also be used to explain further the studied phenomenon. For example, stakeholder theory could be used to explain the role of AFN actors in managing the implementation of organic standards and certification schemes. Institutional theory could offer an insightful lens through which organic standardization and certification are analyzed against regulative, normative, and cultural-cognitive institutions. This lens could be adopted in tandem with the capability approach to answering the question: How does the institutionalization of governance mechanisms contribute to enhancing human capabilities? For example, this case study found that organic regulation has a paramount role in institutionalizing farmers' food security through social control certification. Nevertheless, further research is needed to analyze this role in detail.

A cross-cultural case study could be conducted to compare the implications of organic standardization and certification to human capabilities across different contexts, thereby increasing external validity. Follow-up research could adopt a theory-testing design to analyze the potentials and pitfalls of organic standardization and certification shown in Table 2 with large data samples. A Delphi study could be conducted to gather expert insight into (agrifood) governance and related implications to human capabilities, sustainability, and corporate social responsibility. The experts can be selected from various organizational and geographical backgrounds.

6 | CONCLUSION

This case study critically analyzed the implications of third-party, social control, and hybrid certification within AFNs by employing the capability approach. The findings showed that third-party certification partly bolstered material, political, and environmental capabilities and largely hindered social/cultural capabilities. Third-party certification allowed farmers to enter the specialty organic market but implementing the certification process was expensive and bureaucratic. Interestingly, farmers coped with these challenges by working collaboratively together.

Social control certification fostered several human capabilities for the benefit of farmers and consumers. In addition to governmental and non-governmental actors, farmers and consumers equally participated in the standard setting. Farmers differentiated themselves in the local organic market, given the deeply held ecological values of the standard. Conversely, social control certification still faces a lack of legitimacy in the specialty organic market, thereby failing to ensure farmers' access to price premiums.

Hybrid certification has a mixed impact on human capabilities. Farmers barely retained the profits from the specialty organic market and largely depended on the AFNs' support to improve their production capacity. In contrast, market intermediaries controlled resources and profits, whereas consumers had improved access to various products. A significant limitation of hybrid certification was related to the AFNs' lack of transparency in distinguishing its various

standards and involving stakeholders to peer review their claims of improved social and ecological sustainability.

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CONFLICT OF INTEREST STATEMENT

The authors declare that they have no conflicts of interest.

PEER REVIEW

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DATA AVAILABILITY STATEMENT

The data that supports the findings of this study are available in the supplementary material of this article.

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