


Sustentabilidade e Desenvolvimento Rural: um estudo no interior do estado do Paraná


Sustainability and Rural Development: a study in the countryside state of Paraná

Sostenibilidad y desarrollo rural: un estudio en el interior do estado de Paraná


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Resumo: O agronegócio é uma atividade essencial para a economia brasileira, por isso a importância de se discutir a sustentabilidade nesse meio, visto que está diretamente ligado ao pilar ambiental, assim deve-se procurar reduzir os efeitos causados, na agricultura, buscando atender os pilares social e econômico em equilíbrio. Dessa forma, este estudo teve como objetivo principal compreender o processo e níveis das práticas sustentáveis organizacionais em uma propriedade rural no Município de Pinhão, Estado do Paraná, por meio de pesquisa qualitativa descritiva. Verificou-se as contribuições das práticas sustentáveis e seus impactos nos resultados da propriedade rural, a partir da análise de conteúdo, utilizando a matriz que apresenta seis níveis de sustentabilidade organizacional, onde constatou-se que a propriedade está no nível de sustentabilidade organizacional (SO) consciente enquanto a SO Sinérgica e Holística, desenvolve algumas ações. Possui práticas sociais, ambientais e econômicas estabelecidas, mas ainda deve desenvolver melhor o pilar social, não apresentando o equilíbrio entre eles.

Palavras-Chave: Sustentabilidade. Propriedade rural. *Triple bottom line*.

Abstract: *Agribusiness has been an essential activity for the Brazilian economy, that is why the importance of discussing sustainability in this field, mainly because, it is directly connected to the environmental issue, so we should seek to reduce the effects caused by agriculture. However, there should be a balance between social and economic pillars. Thus, this study, had as main goal, to understand the process and levels of sustainable organizational practices in a rural property in the municipality of Pinhão, State of Paraná, through a descriptive qualitative research. It was analyzed the contributions of sustainable practices and their impacts in the rural property results through content analysis, using the matrix that presents six levels of organizational sustainability. It was found that the property is at the conscious organizational sustainability level (SO) while the OS Synergistic and Holistic, develops some actions. It has established social, environmental and economic practices, however it should still better develop the social pillar, whereas there is not a balance among them.*

Keywords: Sustainability. Rural property. *Triple bottom line*.

Resumen: *La agroindustria es una actividad esencial para la economía brasileña, de ahí la importancia de discutir la sostenibilidad en este entorno, ya que está directamente vinculado al pilar ambiental, por lo que se debe buscar reducir*

los efectos causados en la agricultura, buscando cumplir con los pilares sociales y económicos. en balance. Así, este estudio tuvo como objetivo comprender el proceso y los niveles de prácticas organizacionales sostenibles en una propiedad rural de la ciudad de Pinhão, Estado de Paraná, a través de una investigación cualitativa descriptiva. Se verificaron los aportes de las prácticas sustentables y sus impactos en los resultados de la propiedad rural, a partir del análisis de contenido, utilizando la matriz que presenta seis niveles de sustentabilidad organizacional, donde se encontró que la propiedad se encuentra en el nivel de sustentabilidad organizacional (SO) consciente mientras que el SO Sinérgico y Holístico, desarrolla algunas acciones. Ha establecido prácticas sociales, ambientales y económicas, pero aún necesita desarrollar mejor el pilar social, no presentando un equilibrio entre ellos.

Palabras Clave: *Sostenibilidad. Propiedad rural. Triple bottom line.*

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Introduction

Agribusiness is an essential activity for the Brazilian economy, occupying a large extension of the territory and playing a fundamental role in the country's development by generating jobs, income, and taxes, as well as contributing to food production (Vicente, 2012). According to CEPEA (2018), agribusiness accounted for 21.1% of Brazil's total Gross Domestic Product (GDP) in 2018. As this sector gains prominence, the responsibilities and the importance of discussing sustainability increase, primarily because agribusiness is directly linked to the environmental pillar. Consequently, efforts must be made to reduce the impacts caused, especially in agriculture, regarding soil erosion, and soil, water, and food pollution (Witjes; Vermeulenb & Cramer, 2017; Silva, 2017).

However, beyond the environmental pillar, sustainability encompasses social and economic pillars (Savitz & Weber, 2013). Sustainability is defined as: "a principle that ensures that our actions today will not limit the range of economic, social, and environmental options available to future generations" (Elkington, 2012, p. 52). Economic advancement can lead to increased social disparities and environmental damage, as resources are exploited to keep many industries operating, and harmful and polluting substances are used in their transformation processes. This intensifies the reasons for companies to seek means to mitigate damage to society and the environment (Carvalho; Stefano & Munck, 2015).

Hopwood, Mellor & Obrien (2005) assert that sustainable development is the result of growing awareness regarding environmental issues, as well as socioeconomic matters such as global poverty, inequality, and the challenge of leaving a healthy future for all humanity. In this regard, Elkington (2012) addresses business sustainability by considering people, planet, and profit as core pillars. "People" refers to the social dimension, "planet" to the environment, and "profit" to the economy; collectively termed the triple bottom line, these pillars serve as a framework for assessing sustainability (Elkington, 2012).

To understand how to operate using sustainable methods in the agribusiness sector, this study addresses the context of sustainability under the following research question: "What levels and sustainable practices are utilized in a rural property located in the Municipality of Pinhão, in the State of Paraná?" This research is justified by its contribution to identifying sustainability levels and practices, emphasizing the importance of the triple bottom line in rural properties, which demonstrates the outcomes of the conscious use of agricultural resources. These results should be considered under the premise that agribusiness efficiency can be achieved by dedicating efforts to meet the pillars of sustainability, and its intensification generates social, environmental, and economic benefits (Paul et

al., 2019).

The general objective of this study is to understand the process and levels of organizational sustainable practices in a rural property in the Municipality of Pinhão, State of Paraná. Through qualitative research, it aims to identify the perceptions of the farm owner and employees regarding sustainability, and to verify the contributions of sustainable practices and their impacts on society, the environment, and the economic scope of the rural property. Discerning the organization's core values is relevant because it is necessary to establish a shared understanding of organizational objectives among stakeholders; thus, this study provides the team's vision regarding sustainability (Wijethilake & Lama, 2018). In addition to this introduction, this technical report consists of the following sections: theoretical framework, methodological procedures, discussion, and conclusion.

Theoretical Framework

A) Sustainability: Levels, Practices, and the Triple Bottom Line

To comprehend sustainability, it is necessary to understand the distinction between sustainability and corporate sustainable development. While the former aims for the ultimate goal to be achieved sustainably across economic, social, and environmental dimensions over the long term, corporate sustainable development is the pathway to reaching sustainability by establishing balance (Osorio; Lobato & Castillo, 2015).

Social Sustainability (SS): Refers to concerns regarding health, poverty, social exclusion, community well-being and survival, competencies and education, social justice, human and labor rights, and organizational diversity (Sachs, 2008).

Environmental Sustainability (ES): Seeks to reduce environmental impacts through actions that promote the conscious consumption of natural resources, recycling, and the elimination of unnecessary waste. It requires evaluating corporate operations that significantly influence future generations' access to these resources (Elkington, 2012).

Economic Sustainability (EcS): Relates to financial viability. It is crucial because profit serves as the foundation to implement organizational sustainability across the other pillars, involving strategies developed within the company to maintain robust financial health (Azapagic, 2003; Elkington, 2012).

Araújo et al. (2006) emphasize that Corporate Sustainability (CS) is tied to all three pillars, and for a company to be considered sustainable, it must address all three dimensions. Social and environmental issues cannot be separated; a broader perspective is required. Consequently, it is relevant for companies to seek social responsibility in order to meet the interests of stakeholders who affect or are affected by their activities (Wijethilake & Lama, 2018).

Regarding commitment to sustainability, there are specific levels for CS that demonstrate its development. Gonçalves, Stefano & Baccaro (2017) mention three phases in this research:

Compliance: Related to adherence to environmental and social regulations and codes of conduct.

Integration: Integrating sustainability practices into regular business operations, viewing environmental, social, and corporate governance issues as relevant to business dealings and capable of generating higher profits for organizations.

Transformation: The process of embedding sustainability as a fundamental component of the

corporation's existence.

Consequently, organizations transform by "reorganizing their systems—such as mission, vision, policies, decision-making, and reporting—to meet new circumstances," and these characteristics are adapted according to each organization and context (Gonçalves; Stefano & Baccaro, 2017, p. 7). For Van Marrewijk & Werre (2003), CS focuses on value creation, environmental management, human capital management, and a production system that minimizes impact. As a continuous practice, if incorporated into the organizational strategy, it will yield efficiency and contribute to the firm. However, this implementation does not occur overnight; it must be built gradually, as it is a "challenging and constant process that seeks to reorganize the structures, processes, and practices of the company, as well as its culture, vision, and values" (Wijethilake & Lama, 2018; Gonçalves; Stefano & Baccaro, 2017, p. 56).

To identify CS levels, Van Marrewijk & Werre (2003) developed a sustainability matrix. By progressing through all levels to the final one, organizations approximate the true meaning of sustainability, which is its integration with all management processes. Therefore, this tool should be observed in ascending order, where each level implies distinct organizational practices, as described in Table 1:

Table 1: Sustainability Matrix

1	<p style="text-align: center;">Pre-corporate sustainability</p> <p>At this level, there is no ambition to achieve CS. However, some actions labeled as sustainable may be initiated when required by external pressures (laws and consumer demands). Rigid monitoring and constant improvements are necessary for the company to develop CS.</p>
2	<p style="text-align: center;">Corporate Sustainability in compliance with legislation</p> <p>At this qualification level, CS consists of providing well-being to society within the boundaries of legal regulations. Furthermore, organizations must respond to certain charitable demands and claims from various social actors. Sustainability is driven by enforcement, obligation, and being recognized as correct behavior.</p>
3	<p style="text-align: center;">Profit-driven Corporate Sustainability</p> <p>This level of CS is characterized by the integration of social, ethical, and environmental aspects into company operations—meaning their decision-making processes—provided that such options contribute to a financial return for the organization. CS is driven by a direct relationship with the economic development of the business. Therefore, CS will only be promoted if it is profitable.</p>
4	<p style="text-align: center;">Conscious Corporate Sustainability</p> <p>At this level, there is an interest in balancing economic, social, and environmental issues, placing them all on the same level of importance. Initiatives related to this CS go beyond legal compliance and are not limited to profit concerns. CS is driven by human potential, corporate social responsibility, and care for the planet.</p>
5	<p style="text-align: center;">Synergistic Corporate Sustainability</p> <p>This level of CS seeks functional and well-crafted solutions that create value across economic, social, and environmental scopes. This performance is evidenced by different organizational performance metrics, achieved through a win-win approach involving all relevant stakeholders in the organization's relationship chain. CS is driven by the recognition of sustainability as an important phenomenon in its own right, especially because it is understood as an inevitable action for the company's progress.</p>
	<p>Holistic Corporate Sustainability</p>

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This level identifies that CS is fully integrated and embedded in every aspect of management processes. Therefore, it aims to contribute to the quality, maintenance, and continuity of life for all beings and institutions, both in the present and the future. CS is driven by viewing sustainability as the only alternative response to the environmental crisis. Thus, every person and organization holds a universal responsibility toward all other living beings on the planet.

Fonte: Van Marrewijk & Werre (2003, p.112); Gonçalves, Stefano & Baccaro (2017, p.58).

As shown in Table 1, six levels can be identified within organizations; in practice, companies tend to align with the CS level that best fits their conditions. Each level surpasses and integrates the previous one. Operating at higher levels of sustainability does not imply that these organizations are flawless, but rather that their stage of sustainability is differentiated and advanced (Van Marrewijk & Werre, 2003). In this manner, corporate sustainability functions to inspire organizations and support sustainable development, meeting the expectations of direct and indirect stakeholders—such as employees, customers, communities, and other parties involved—without compromising the ability to sustain the needs of future generations (Munck, 2013).

B) Sustainable Agribusiness

Agriculture and livestock have always been fundamental activities for human survival. Over time, agriculture developed to align with corporate practices, utilizing management tools to control and plan activities, giving rise to the term "agribusiness," which encompasses all processes from input manufacturing to processing, distribution, and consumption (Pereira et al., 2015; Araújo, 2009). Batalha (2005, p. 12) highlights the relevance of agribusiness and the economic aspects tied to this enterprise sector, noting that "the economic, technological, political, and social activities linked to the production, transformation, distribution, and consumption of plant and animal products have garnered the attention of the academic, governmental, and business communities". Thus, it is necessary to understand the value creation procedures among the agents involved in the process.

Sustainability in agribusiness is highly visible, especially within the environmental pillar, but the social and economic pillars are equally important, as sustainable development encompasses issues such as economic growth, soil conservation, rational exploitation of natural resources, quality of life, poverty, and income distribution (Souza Filho et al., 2009). Therefore, for any activity to be sustainable, it must be "environmentally non-degrading, technically appropriate, economically viable, and socially acceptable" (Global Action, 1993, p. 229).

To achieve sustainability in agribusiness, actions must be implemented in rural areas. Giordano (2015) highlights several practices: no-till farming, crop rotation, maintenance of rural roads, planned placement of culverts and drainage systems on rural roads, prohibition of cutting native forests, maintenance of native forest areas, conservation and replanting of native plant species, maintenance of permanent preservation areas, prohibition of predatory hunting and establishment of hunting/fishing seasons where applicable, integrated pest management, adherence to agrochemical grace periods, correct and localized dosing of pesticides, replenishment of soil organic matter, restoration of organic compound incorporation practices, selective collection systems for pesticide containers, and environmental education in rural and urban primary schools (Witjes; Vermeulenb & Cramer, 2017).

The environmental dimension is strongly present in rural activity, but social and economic dimensions must be met simultaneously, despite the initial debates surrounding sustainability being

sparked by environmental issues like soil erosion, deforestation, and water resource contamination. However, agricultural areas have always faced social problems such as "land concentration and income disparity, precarious working conditions, or even hunger and misery; thus, a primary purpose would be to reduce inequalities" (Ehlers, 1994, p. 106).

To stimulate sustainable development in the production chain, Neves, Thomé & Castro (2009) suggest several actions: participating in national and international certifications; remaining attentive to environmental preservation and protection; generating direct and indirect jobs in poor regions with a multiplier effect; corporate investment in infrastructure within the communities where they operate; valuing employees by caring for their health; and promoting social inclusion in vulnerable communities.

Regarding the implementation of certifications, they emerged so that consumers could have greater confidence in products supplied by agricultural activities, as well as to address the absence of regulatory standards establishing basic procedures for crop cultivation, food processing, and distribution, thereby providing recognition and credibility to products (Batalha, 2005). This represents an advantage of adopting sustainable practices on rural properties: the recognition that property production complies with standards, is environmentally and socially responsible, and exhibits a concern for leaving resources for future generations.

Once all parties understand the relevance of sustainable practices, the property can secure social, production, and economic gains; employees work dedicatedly to protect natural assets, which benefits society as a whole (Gonçalves; Domingues & Bento, 2017). Focusing on and working to address the human capital within the entity—such as health, skills, and education—will contribute to forging the path toward sustainability (Elkington, 2012). Including sustainability in business management, besides fostering growth and generating profit, facilitates and promotes "the fulfillment of the economic and non-economic aspirations of the people upon whom the company depends, both inside and outside the organization" (Savitz & Weber, 2007, p. 3). Sustainable agribusiness is a major step forward in the pursuit of sustainability, and public policies can collaborate toward this end, thereby generating shifts among internal and external stakeholders; advancing this debate is imperative (Ehlers, 1994; Witjes; Vermeulenb & Cramer, 2017). The study's methodological procedures are presented below.

Methodological Procedures

The present study is identified as descriptive-qualitative. According to Godoy (1995), qualitative research involves acquiring data about people, places, and processes through direct contact between the researcher and the studied setting, seeking to understand phenomena from the perspective of the subjects participating in the investigated environment. Descriptive research outlines the characteristics of a given population or phenomenon and can establish correlations between variables and define their nature (Yin, 2015).

The unit of analysis for this research is a rural property, utilizing four data collection sources: semi-structured interviews, non-participant observation, research diaries, and property documents. The research subjects consisted of four individuals: the owner and three employees (the farm manager and two rural workers). A technical visit to the property was also conducted. To preserve the identities of the employees, they are designated using uppercase letters from "A" to "C". Ethics committee review was not required, but all interviewees signed an individual free and informed consent form.

Table 2: Profile of Interviewees

Role	Gender	Age	Education Level	Tenure in the Company
Property Manager (Employee A)	M	46	Incomplete Primary Education	21 years
Rural Worker (Employee B)	M	42	Incomplete Primary Education	14 years
Rural Worker (Employee C)	M	41	Incomplete Primary Education	2 years
Owner	M	69	Completed Higher Education - Agronomic Engineering	28 years

Source: Research data.

Semi-structured interviews are an important source of evidence for identifying behavioral actions and human matters (Yin, 2015). This study utilized two interview guides: one for the farm owner containing 38 topics, and another for the three interviewed employees containing 21 topics. These guides collected personal profile information and queries related to the sustainable practices carried out on the property, designed based on the theoretical framework of this study. Non-participant observation was employed, maintaining distance between the observer and the observed phenomenon (Fraser & Gondim, 2004).

The details of the studied universe were observed, and an analysis of the interview transcripts was conducted, totaling 20 pages. The interviews were recorded with the prior notification of the interviewees, who signed a consent form, totaling 4 hours and 15 minutes of interview time. Field notes recorded during the property visit, along with photographs and management documents, were also utilized to understand the phenomenon (Godoy, 1995). A field diary was used as a documentation method to verify the accounts within the environmental context, recording field experiences and contact with interviewees (Flick, 2019).

To perform data analysis, the content analysis technique was utilized, which consists of "a set of communication analysis techniques using systematic and objective procedures to describe the content of messages" (Bardin, 1994, p. 44). Content analysis has advanced in organizational studies due to the depth of research, scientific rigor, and proximity to the researched public. By observing the attitudes and speech of the subjects, significant data is uncovered for study analysis. The core foundational authors utilized in this research were Van Marrewijk & Werre (2003), who address the sustainability matrix composed of six sustainability levels (Mozzato & Grzybovski, 2011). A discussion of the research results follows.

Analysis and Discussion of Results

a) Property History and its Sustainable Practices

The property is located in the municipality of Pinhão/PR and currently has seven employees. The owner acquired the area in 1984, motivated by his profession as an agronomist, seeking an environment that would bring well-being and could be enjoyed during weekends. The property remained without active operations for several years. Subsequently, investments were made in livestock activities; however, this activity alone did not yield financial returns. Agriculture was then initiated on a small scale, but it still did not deliver the expected returns. Consequently, the owner

decided to implement crop-livestock integration, which brought progress (Owner Interview).

To ensure the property evolved and became profitable, the owner realized the need to invest in a more organized management system, through which improvements and investments were gradually made, aiming for continuous improvement. Currently, the livestock sector sells approximately 850 head of cattle per year, while the agricultural sector produces soybeans, corn, barley, and wheat (Owner Interview). Initially, the owner faced management difficulties and began pursuing efficiency through sustainability across economic, environmental, and social scopes. Around 2003, he began seeking training for himself and his employees, undertaking courses at the local Emater and participating in programs for organization and proper waste disposal.

Later, one of the cooperatives to which the owner belongs began implementing sustainable practices across properties. Consequently, both parties exchanged experiences and assistance to make sustainability a reality (Owner Interview). Throughout the owner's account, it is evident that organizational sustainability became a strategy for the rural property, achieving efficiency as the manager adopted it to foster business growth (Munck, 2013). Understanding the historical context in which the property was established enables a proper understanding of the process in which it is embedded (Berger & Luckmann, 2009).

b) Analysis of the Corporate Sustainability Level

Based on the analyses of the collected data, comparing the interviews with the theoretical framework, it was observed that the property no longer falls within the first three levels: Pre-corporate sustainability, CS in compliance with legislation, and profit-driven CS. According to Van Marrewijk & Werre (2003), the first has no ambition to achieve CS, only undertaking a few initiatives imposed by external pressures. CS in compliance with legislation merely carries out what is seen as correct behavior as an imposition, providing minimal assistance to the social actors where the organization operates, seen as fulfilling a mandated obligation. Profit-driven CS comprises organizations that only integrate social, ethical, and environmental aspects if they can achieve financial returns, prioritizing the economic development of the business (Van Marrewijk, 2010).

The property has been adopting sustainable practices over the years. According to Interviewee A, the pursuit of sustainable management began in 2003, and in his perception, it must be maintained and enhanced. The employee integrates sustainability into his daily work routine, embedding it into the management process of his activities. It was not initiated recently but gradually, and its goal is not solely to meet legal standards and generate profit; rather, it is part of the property's history, demonstrating the importance of sustainability to employees who became aware and collaborated toward its success.

Since each organization has its particularities, they adopt the level of organizational sustainability that best favors their objectives and strategies. Thus, being at the highest level does not mean organizations are superior in terms of sustainability, but that they have traversed the previous levels and sought differentiation with a deeper look at the triple bottom line (Cappellari et al., 2021; Van Marrewijk & Werre, 2003). The final three levels of the matrix by Van Marrewijk and Werre (2003), evidenced by information collected during observations, document analysis, and interviews, are detailed below.

c) Conscious Corporate Sustainability

Conscious CS seeks to balance economic, social, and environmental issues, placing them on the same tier of relevance. As the levels of the matrix by Van Marrewijk & Werre (2003) transcend one another, Conscious CS stands at the fourth level, going beyond legal compliance and profit, motivated by human talent, corporate social responsibility, and care for the planet. Through the accounts, actions performed by the property in environmental and social aspects were identified, alongside economic results, as per employee interviews.

Regarding the environmental pillar practiced by the property, several actions are carried out to preserve natural resources, confirming the attention paid to this pillar of the triple bottom line:

"The manager is responsible for waste disposal and destination. Those of us who work in livestock handle the recycling of materials used for cattle care, such as products, medicine glass; we separate plastic, glass, paper, everything." (Interviewee B)

"We are organized, we take care of the cattle, the environment where they stay, we take care of the water, which is treated from a water spring." (Interviewee C)

It can be noted that employees are conscious of the environmental actions valued by the property; thus, they seek to meet environmental care in their activities, preserving nature, well-being, and animal care. In the social aspect, as previously presented, it addresses care regarding health, poverty, well-being, community survival, competencies and education, social justice, and human and labor rights (Sachs, 2008). The interviewees presented actions currently carried out on the property:

"We conduct training, a good part of which is internal [...]. We register the training sessions, and whenever there is a new collaborator, they must know what the property thinks and what needs to be done." (Interviewee A)

"Training on sustainable practices is important because you learn more, take the learning home, and pass it on to your family." (Interviewee C)

"We all have health insurance, accident insurance; we do not have a basic food basket. On the social issue, there is always something to improve." (Interviewee A)

The owner affirms that he intends to invest more in the social pillar, beyond the practices already implemented, particularly regarding employee health and safety. In terms of health, he is seeking more efficient occupational exams that show employee health precisely, as many employees over time report bodily pains from old incidents that occurred when working on other properties. Regarding safety within the property, he intends to invest in more equipment and structures so that they can perform their activities without risks (Owner Interview). As evidenced, both the owner and his employees agree that improvements can still be implemented in this aspect.

For the owner, in the economic aspect of the property, these sustainable practices improved business results; there is higher employee performance, which consequently yields a greater response from the executed work (Owner Interview). When asked if there was a cost to implementing sustainability on the farm, the owner maintains that employee training sessions are considered investments rather than costs. Besides not being difficult to do, they generate knowledge and capacity for employees to develop further in their activities. He emphasizes that the property lacks "luxury"; all materials used on the farm were organized, and the 5S tool was implemented to facilitate activities and keep the environment clean, preserving nature from improper waste and contributing to employee well-being. In situations where costs were incurred, they were not onerous, and investments continue to be made gradually (Owner Interview).

Interviewee A, when questioned about the importance of the economic pillar, perceives that

this aspect advances alongside the other pillars, stating that if this pillar is efficient, social and environmental pillars can be fulfilled. Analyzing the accounts confirms that actions are occurring across all three aspects of sustainability, and everyone seeks improvements to evolve and maintain what the property already possesses. Another piece of evidence that the property transcends legal requirements and profitability objectives is observed in the following account:

"Certifications were a consequence; I do not seek certifications to become more profitable. Certification is an award we receive; for me, it is a motivation, a recognition that what we are doing is right. It's not like, 'now I'm going to seek safety certification to make more money,' it's not that. I view certifications as recognition of the employees' work, that's what I see." (Owner Interview)

These results indicate that the property under study is at the conscious corporate sustainability level, as it meets the requirements proposed by this category and intends to seek other actions to improve the quality of life of employees, given that the environmental aspect is already more developed. Having concluded the analysis of the third level of CS, the study proceeds to synergistic CS.

d) Synergistic Corporate Sustainability

As previously cited in the sustainability matrix table, at the synergistic organizational sustainability level, organizations seek balanced, functional, and well-crafted solutions that create value across the triple bottom line scope, using a synergistic approach that generates mutual gain and stakeholder participation (Van Marrewijk & Werre, 2003). In synergistic CS, values such as insight, long-term orientation, flexibility, and tolerance for uncertainty and paradoxes are discussed. Sustainability topics are included in strategic planning, mission, vision, and policies, creating systems and tools to assist in the execution, maintenance, and monitoring of sustainable actions involving collaborators so they work engaged with these values and long-term initiatives to serve current and future generations (Cappellari et al., 2021).

On the rural property under study, specific control systems do not exist, but there is monitoring by the property manager, who controls activities to be executed through action plans aligned with the owner during meetings typically held every two months with all employees. They discuss and provide opinions on the best ways to solve problems and perform their work (Owner Interview). Regarding initiatives to serve current and future generations, Interviewee A demonstrated a broad understanding of the three pillars of sustainability and knows how vital sustainability is for future generations, viewing it as everyone's responsibility. He guides other employees, defends sustainability principles, and encourages environmental care and sustainable practices so future generations can receive a better planet with healthy water and soil (Field Diary).

Regarding other stakeholders, the owner was questioned about how his property has helped the community. He comments that the property's management policy is open to interested parties, maintaining a good relationship with neighbors. Many people visit the property to learn about the good practices they perform and implement them on their own properties. Several companies and universities conduct technical visits to enhance knowledge and understand the sustainable management practiced there (Owner Interview). Content analysis evidenced that employees are conscious of the long-term impacts that CS can generate for future generations, and interested parties are welcomed to learn and observe how sustainability is managed. Thus, information does not remain solely within the property but is carried forward, helping perpetuate a culture of sustainability that can be transmitted to future generations (Cappellari et al., 2021).

However, as previously mentioned, they seek to perform actions according to their possibilities and continue to find ways to contribute to the social sphere. Regarding control systems, they are managed through Excel spreadsheets; more specific management systems are absent, given that the employees managing the information have low formal education. The property holds the following mission: "To produce quality grains and meat, serving the well-being of the consumer and collaborators, while preserving the environment." It also features a visual management board with important monitoring information for its employees. It does not possess a strategic map or a formalized vision statement; regarding this, practices could be better analyzed and developed (Field Diary).

Analyzing the context identified that the property meets some aspects of the synergistic CS level, as its employees recognize sustainability as crucial for organizational success. Thus, the community, owner, and employees gain collectively by maintaining sustainable practices. However, management lacks all the criteria addressed by this category. Concluded the analysis of synergistic corporate sustainability, which represents an advanced level of CS, the study follows with holistic CS.

e) Holistic Corporate Sustainability

The sixth and final level of the corporate sustainability matrix refers to organizations that embed CS into every aspect of management processes and collaborate to achieve quality, maintenance, and continuity of life for all beings and institutions, now and in the future, holding the awareness that every person and organization possesses a universal responsibility toward all other living beings on the planet (Van Marrewijk & Werre, 2003). In Holistic CS, values such as "interdependence, concern for future generations, wisdom, sufficiency, and responsible living" are discussed (Cappellari et al., 2021, p. 115).

When asked whether social, environmental, and economic responsibility is a constant concern aiming for the quality and continuation of life, now and in the future, the owner believes so and adopts it as a motto. He perceives employee and family satisfaction as vital—in terms of work, remuneration, and health—ensuring they remain in an environment where they feel recognized (Owner Interview). Regarding holding a universal responsibility toward other beings, Interviewee C manifests his awareness and concern for others, explaining that sustainability must be disseminated and transformed into actions. This proves the property is playing a strong role in raising employee awareness, and they hope external institutions will assist in educating society as a whole.

It is noted that the property is engaged with the concept of sustainability, striving to resolve the socio-environmental problems of the community in which it is embedded (Cappellari et al., 2021). The owner comments that if sustainability is not maintained, the property will not survive; it will decline, fail to satisfy employees, become economically unviable, and environmentally stagnant. Thus, it is clear that shifting toward sustainability requires restructuring organizations with committed stakeholders acting effectively across the three pillars of the triple bottom line (Cappellari et al., 2021; Blowfield, 2013; Elkington, 2012). In this sense, social, environmental, and economic concerns are continuous on the property, and both the owner and employees understand that today's actions can impact the lives of future generations. However, specific actions for the broader community are absent, occurring only when interested parties seek to learn from their actions to implement them on their properties. Similar to the synergistic CS level, the property performs actions within holistic CS but still needs to progress to achieve it fully, demonstrating ongoing refinement and a pursuit of

continuous improvement (Cappellari et al., 2021).

Table 3: Sustainable Practices of the Property (Diagnosis)

Environmental Practices	Social Practices
Legal Reserve – CAR (Rural Environmental Registry)	Health insurance
APP (Permanent Preservation Area) – preservation of water sources	Accident insurance
Selective waste collection	Training and consultation materials for employees
Correct disposal of containers/packaging	Sharing information with neighbors and interested parties
Allocation and separation of waste (oil and lubricants)	5S on the Farm - organization, cleaning, providing a better environment for employees
Crop-livestock integration	Recognition by other properties and companies
Water utilization, protected water springs	Joint work with employees, involving them in decision-making
Utilization of animal waste for agriculture and pastures	PPEs (Personal Protective Equipment) for employees
Animal care (no shouting, practicing patience)	Awareness of involved parties regarding the importance of sustainable practices
Hygiene in the animal environment, animal welfare	Collaborators engaged with the idea of sustainability
Reduction of diesel oil waste	WI (Work Instruction)

Source: Research data.

Through the presented practices, it is identified that the sustainability on the property moves toward reaching levels five and six of the sustainability matrix by Van Marrewijk & Werre (2003) in its complexity. They reveal awareness of the importance of sustainability for property management and within environmental and social scopes. Employees possess long-term knowledge and vision regarding business operations, developing a sustainability-oriented culture by integrating sustainable values and warmth, thus working together to minimize negative socio-environmental impacts in the workplace and family environment (Carvalho; Stefano & Munck, 2015).

f) Perspective of Sustainability on the Rural Property

As previously mentioned, management improvements have been sought over the years. Understanding the relevance of sustainable practices enables the property to obtain social, production, and economic gains. Employees contributing to expanding the concept of sustainability inside and outside work benefits society as a whole, ensuring future generations can enjoy current natural resources (Gonçalves; Domingues & Bento, 2017). For the farm owner, implementing sustainable practices was fundamental to managing his business with the help of his employees, holding the vision that it is necessary to maintain current tasks and seek improvements. To illustrate the progress of the property under study, Figure 1 presents the property's historical timeline and its advancements in rural management:

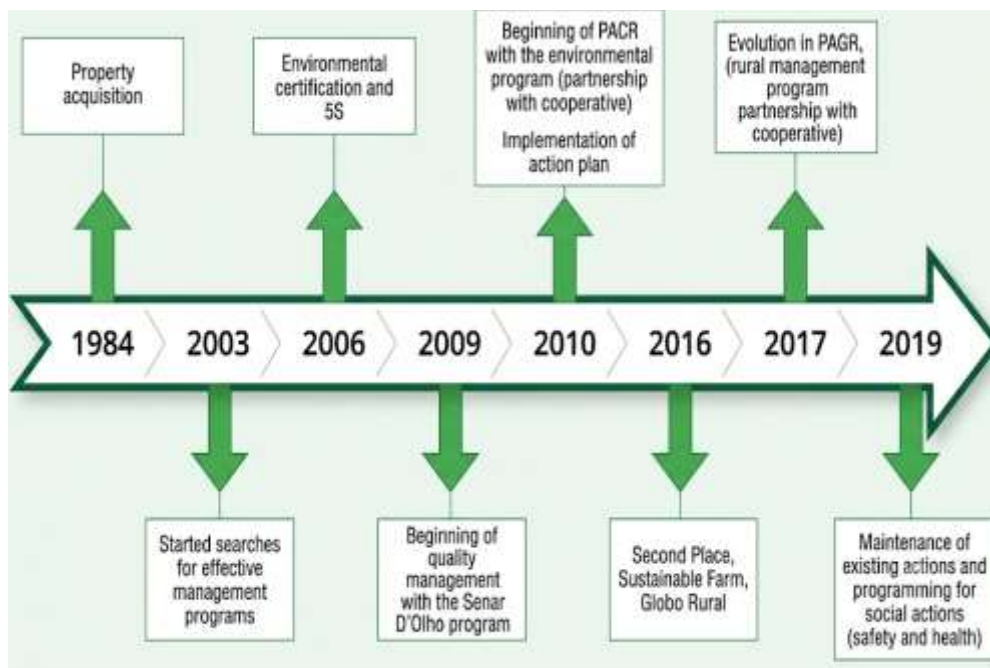


Figure 1: Property History Timeline
Source: Research data (Property documents).

The actions carried out by the property yielded national awards, including second place for "Sustainable Farm" in 2016 by Globo Rural magazine, alongside environmental and 5S certifications and internal certifications from cooperative programs (Owner Interview). As stated by the owner, the farm receives visits because these awards made it a reference in sustainable practices, remaining open to exchanging experiences and encouraging the continuity of its actions.

Table 4 presents synthesized results indicating categories, recording units, context units, and a brief content analysis derived from the semi-structured interviews with the owner and employees.

Table 4: Matrix of Results Obtained from Interviews

Categories	Recording Unit	Context Unit	Content Analysis
Pre-corporate sustainability; CS in compliance with legislation; Profit-driven CS	"Sustentabilidade é um setor que não tem como voltar atrás depois de implantado (...) Se voltar atrás a diferença é visível (...) tem que trabalhar para manter e melhorar. Mas conforme a possibilidade de cada propriedade. Ninguém vai virar uma propriedade sustentável do dia para a noite..."	What do you think about sustainability in general?	Sustainability actions have been performed on the property for many years, forming part of the employees' work routine.

Conscious Corporate Sustainability	"A propriedade tem certificação ambiental desde 2006, e a gente cuida dos processos que possam causar danos ao meio ambiente, você pode ver como funciona o tratamento da água, destino do lixo e os treinamentos dos colaboradores..."	What environmental or social actions (internal and external) exist on the property?	They transcend other CS levels, going beyond legal compliance and profit, driven by human talent, corporate social responsibility, and care for the planet (Van Marrewijk & Werre, 2003).
Synergistic Corporate Sustainability	"Temos que pensar que a água que nós gastamos hoje é o que os nossos netos podem estar precisando amanhã."	Do you consider sustainability crucial for long-term progress?	It meets some aspects of the level, though management lacks all the criteria addressed by this category.
Holistic Corporate Sustainability	"É fundamental e importante que continuemos as práticas sustentáveis, tentando melhorar cada vez mais. Todo aprendizado é bem-vindo. Fazemos nossa parte, e as escolas deveriam conscientizar e ensinar as crianças [...]. Acho que tem que começar da raiz para que possamos melhorar."	Do you believe that social, environmental, and economic responsibility is a constant concern aiming for the quality and continuation of life, now and in the future?	The farm is engaged with the sustainability concept, seeking to resolve community socio-environmental problems, though incorporating actions matching this level remains necessary.

Source: Research data.

The sustainability matrix by Van Marrewijk & Werre (2003) allowed for the identification of the corporate sustainability level of the studied property. Interviewee accounts point out that everyone is conscious of the importance of sustainability and remains engaged with the theme. Content analysis verifies that the property adopted sustainable practices to build a strategy to organize its management so the property could develop. Consequently, the preservation of the environmental pillar—the farm's main area of operation—was the first to fully adjust. Social pillar actions followed, which are also expanding, while the economic pillar contributes to making investments possible so all three dimensions are treated equitably; once organized, the other pillars also feed back into the economic pillar. The final considerations, limitations, and future study recommendations follow.

Final Considerations

This study aimed to showcase the sustainable practices of the investigated property, sharing them with academia and society, demonstrating that numerous actions can be carried out on rural properties to minimize the impacts of agricultural activities. Based on the study's objective, the process and levels of organizational sustainable practices on the rural property were identified, alongside the perceptions held by the owner and farm employees regarding sustainability, verifying the contributions of these sustainable practices.

Through semi-structured interviews, non-participant observation, document analysis, and research diaries, it was established that the property features various sustainable practices across social, environmental, and economic pillars, contributing to the internalization of corporate

sustainability within the property's routine. Content analysis concluded that the property operates at the conscious corporate sustainability level (Van Marrewijk & Werre, 2003), exhibiting all characteristics of this stage, while displaying some actions within Synergistic and Holistic CS that require refinement.

It was observed that the property possesses established social, environmental, and economic practices but still intends to better develop the social pillar by focusing on the health and safety of its employees. Thus, it demonstrates an effort to operate the TBL in a balanced manner, as recommended by specialists (Elkington, 2012). This study presents certain limiting aspects, notably that the research was restricted to a single property, providing focused data for scientific identification (Yin, 2015). Therefore, replicating this study on other properties is recommended to analyze alternative existing sustainable practices and disseminate them, utilizing quantitative methods alongside qualitative approaches to expand the participant universe. Finally, a longitudinal study is suggested to verify whether the findings change over time, given that reports indicate the property undergoes continuous improvements and could potentially shift its sustainability level.

References

- Araújo, M. J. (2009). *Fundamentos de Agronegócios*. 2 ed. São Paulo: Atlas.
- Araújo, G. C., Bueno, M. P., Sousa, A. A., Mendonça, P. S. M. (2006). *Sustentabilidade Empresarial: conceitos e indicadores*. In: Congresso Brasileiro Virtual De Administração.
- Azapagic, A. (2003). *Systems approach to corporate sustainability: a general management framework*. Institution of Chemical Engineers (81, pp.303-316).
- Bardin, I. (1994). *Análise de conteúdo*. Lisboa: Edições Setenta.
- Batalha, M. O. (Orgs.). (2005). *Gestão do agronegócio: textos selecionados*. São Carlos. EdUFSCar.
- Berger, P. L. & Luckmann, T. (2009). *A construção social da realidade*. Petrópolis: Vozes.
- Blowfield, M. (2013) *Business and Sustainability*. Oxford: UK.
- Cappellari, N., Stefani, S. R., & Castro, M. (2021). *A Institucionalização da Sustentabilidade Organizacional na Itaipu Binacional*. *Revista Eletrônica de Ciência Administrativa*, 20(1), 117-139.
- Carvalho, A. C. V., Stefano, S. R. & Munck, L. (2015). *Competências voltadas à sustentabilidade organizacional: um estudo de caso em uma indústria exportadora*. *Gestão & Regionalidade (Online)*, (vol. 31, n. 91, pp. 33-48).
- CEPEA. (2018). *Participação do Agronegócio no PIB do Brasil (em %)*. Recuperado de <https://www.cepea.esalq.usp.br/br/consultas-ao-banco-de-dados-do-site.aspx>
- Ehlers, E. M. (1994). *O que se entende por agricultura sustentável? Dissertação de mestrado*. Universidade de São Paulo. São Paulo, Brasil.

- Fraser, M. T. D.; Gondim, S. M. G. (2004). Da fala do outro ao texto negociado: discussões sobre a entrevista na pesquisa qualitativa. *Paidéia*, (vol.14, n.28, pp. 139-152).
- Flick, U. (2019). Uma introdução à pesquisa qualitativa. Porto Alegre: Bookman.
- Elkington, J. (2012). *Canibais com garfo e faca*. São Paulo: Makron.
- Giordano, S. R. (2015). Gestão Ambiental no Sistema Agroindustrial. In: Zylbersztajn, D.; Neves, M. F. *Economia e Gestão dos Negócios Agroalimentares: indústria de alimentos, indústria de insumos, produção agropecuária, distribuição*. São Paulo. Pioneira Thomson Learning.
- Global Action (1993). *Sustainable agriculture and food security. Briefing between the summits down to earth*. Copenhagen.
- Godoy, A. S. (1995). Introdução a pesquisa qualitativa e suas possibilidades. *Revista de Administração de Empresas*. São Paulo. (vol. 35, n. 2, pp. 57-63).
- Gonçalves, E., Domingues A. & Bento, T. (2017). Sustentabilidade no Agronegócio: Uma abordagem completa. *AGRISHOW*. Recuperado de <https://www.agrishow.com.br/landingpages/Sustentabilidade-no-agronegocio.html>.
- Gonçalves, M. F., Stefano, S. R. & Baccaro, T. A. (2017). Sustentabilidade organizacional e suas relações com a gestão estratégica de pessoas: um estudo de caso em uma cooperativa agroindustrial. *Revista de Administração da Unimep*, (v. 15, pp.51-73).
- Hopwood, M., Mellor, M. & O'Brien, G. (2005). Sustainable Development -Mapping Different Approaches. *Sustainable Development*. (pp. 38-52).
- Mozzato, A. R. & Grzbovski, D. (2011) Análise de conteúdo como técnica de análise de dados qualitativos no campo da administração: potencial e desafios. *Revista de Administração Contemporânea, Curitiba*, (v. 15, n. 4, pp. 731-747).
- Munck, L. & Souza, R. B. (2013). *Compreensão do Desenvolvimento Sustentável em Contextos Organizacionais a partir do Estabelecimento de Tipos Ideais*. Salvador. Organizações e Sociedade. (n.67, pp. 651-674).
- Neves, M. F., Thomé E. & Castro, L. (2009). O Modelo PINS para Empreendimentos e o Desenvolvimento Sustentável. In: Neves, M. F. (Coord.). *Agronegócios e Desenvolvimento Sustentável: uma agenda para a liderança mundial na produção de alimentos e bioenergia*. São Paulo: Atlas, (pp. 49-57).
- Osorio, L. A. R.; Lobato, M. O.; Castillo, X. A. (2015). Debates on sustainable development: towards a holistic view of reality. *Environment, Development and Sustainability*. (v. 7, pp. 501-518).

- Paul, C. Anja-Kristina Techen, A. K. Robinson, J. S. & Helmingab, K. (2019). Rebound effects in agricultural land and soil management: review and analytical framework. *Journal of Cleaner Production*. v. 227, pp. 1054-1067.
- Pereira, P. V. M., Azevedo, D. B., Spanhol, C. P., Figueiredo Neto, L. F. & Gregório, L. S. (2015). *Anais ENGEMA. Encontro Internacional sobre Gestão Empresarial e Meio Ambiente, FEA USP*.
- Sachs, I. (2008). *Desenvolvimento: includente, sustentável e sustentado*. Rio de Janeiro: Gramond.
- Savitz, A. W. & Weber, K. (2007). *A Empresa Sustentável: o verdadeiro sucesso é o lucro com responsabilidade social e ambiental*. Rio de Janeiro: Elsevier.
- Savitz, A. W. & Weber, W. K. (2013). *Talent, Transformation, and the triple Bottom Line*. Jossey-Bass, San Francisco, CA.
- Silva, D. B. (2017). Sustentabilidade no Agronegócio: dimensões econômica, social e ambiental. *Comunicação & Mercado - Revista Internacional de Ciências Sociais Aplicadas da UNIGRAN*, (v. 1, pp. 23-34).
- Souza Filho, H. M., Buainain, A. M., Guanziroli, C. & Batalha, M. O. (2009). *Agricultura Familiar e Tecnologia no Brasil: características, desafios e obstáculos*. SOBER Congresso.
- Van Marrewijk, M. & Werre, M. (2003). Multiple levels of corporate sustainability. *Journal of Business Ethics*, Dordrecht, (v. 4, n. 2-3, pp. 107-119).
- Van Marrewijk, M. (2010) The Cubrix, an Integral Framework for Managing Performance Improvement and Organisational Development. *Journal of Technology and Investment*, (v. 1, no. 1, pp. 1-13).
- Vicente, F. F. (2012). *Certificações e gestão de sustentabilidade em usina de cana-de-açúcar*. Dissertação de Mestrado, Escola de Economia de São Paulo da Fundação Getúlio Vargas. São Paulo. Brasil.
- Wijethilake, C; Lama. T. (2018). Sustainability core values and sustainability risk management: Moderating effects of top management commitment and stakeholder pressure. *Business Strategy and the Environment*. p. 143-154.
- Witjes S.; Vermeulenb, W. J.V. & Cramer, J.M. (2017). Assessing Corporate Sustainability integration for corporate self-reflection. *Resources, Conservation and Recycling*. v. 127, p. 132-147.
- Yin. R. K. (2015). *Estudo de caso: planejamento e métodos*. 5. ed. Porto Alegre: Bookman.