


SUSTAINABILITY IN AGRIBUSINESS: A SYSTEMATIC REVIEW OF ESG PRACTICES

 <https://doi.org/10.56238/rcsv14n6-001>

Date of submission: 09/02/2024

Approved on: 10/02/2024

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ABSTRACT

The importance of environmental, social, and governance (ESG) practices is increasingly evident in various sectors of the economy, including agribusiness. These practices reflect an adaptation to market demands and represent a shared responsibility in building an equitable and environmentally conscious future. The study aims to identify the main results and trends in the literature on the influence of ESG issues in agribusiness, in addition to pointing out gaps in the understanding of the intersection between these topics. Through the PRISMA systematic review methodology, articles and online journals were examined in databases such as CAPES, SCIELO, PubMed, USP and ScienceDirect, focusing on content related to the ESG theme in the context of agribusiness. The results reveal a growing attention from institutional investors to ESG issues, with emphasis on topics such as decarbonization and deforestation. The integration of ESG practices in agribusiness positively influences investment and promotes social and environmental well-being. However, significant gaps exist, including the need to improve corporate governance by including environmental and social issues in corporate decision-making, to make environmental and social issues more tangible for investors, and to bridge the discrepancy between the description of stocks and their indicators.

Keywords: ESG, Agribusiness, Opportunities, Sustainability.

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INTRODUCTION

The agribusiness sector, comprising a wide range of economic activities that is in constant search for greater productivity and competitiveness, aims to meet the growing demands of an increasingly demanding consumer. In this context, the growing adoption of sustainable and responsible practices stands out, in line with global concerns with environmental, social, and governance (ESG) issues (PINTO et al., 2016). The ESG approach goes beyond the mere purpose of profitability, providing collective benefits and contributing to the global goals set by the 2030 Agenda. Thus, in the context of agribusiness, the search for sustainable practices not only reflects an adaptation to market demands, but also a shared responsibility in building a more equitable and environmentally conscious future (CAMPOS et al., 2022). In view of this scenario, this study aims to identify the main results and trends in the literature on the influence of environmental, social and governance issues in agribusiness, identifying the gaps related to the understanding of the intersection between environmental, social and governance issues in this sector and the influence of the theme, through a systematic review, with the following objectives:

- To identify the main results and trends in the literature on the influence of environmental, social and governance issues in agribusiness.
- Identify gaps in the literature related to understanding the intersection between environmental, social, and governance issues in agribusiness.

METHODOLOGY



The PRISMA systematic review methodology was used to carry out a bibliographic survey in articles and journals available online, focusing on content that addresses the ESG theme in the context of agribusiness. The analysis focused on answering the following questions:

- What are the main results and trends identified in the literature regarding the influence of environmental, social and governance issues in agribusiness?
- What are the gaps identified in the literature in relation to understanding the intersection between environmental, social, and governance issues in agribusiness?

The search engines used were the databases "CAPES" (<https://www-periodicos-capes-gov.br.ez1.periodicos.capes.gov.br/index.php/buscaador-primo.html>), "SCIELO" (<https://search.scielo.org/?q=ESG&lang=pt&count=15&from=0&output=site&sort=&format=summar y&fb=&page=1&q=%28ab%3A%28ESG%29%29&lang=pt&page=1>), "PubMed"

(https://pubmed.ncbi.nlm.nih.gov/?term=%28ESG%29+AND+%28agribusiness%29&filter=datesearch.y_10) and USP (<https://repositorio.usp.br/result.php?search%5B%5D=ESG+AGRONEG%C3%93CIO>) and ScienceDirect (<https://www.sciencedirect.com/search?q=ESG%3B%20AGRIBUSINESS>) through the search keywords "agribusiness", "agribusiness" and "ESG", in Portuguese and English languages. Based on the studies found, inclusion and exclusion criteria were applied in order to narrow down the results (Figure 1).

Figure 1 – Inclusion and exclusion criteria of the articles found.

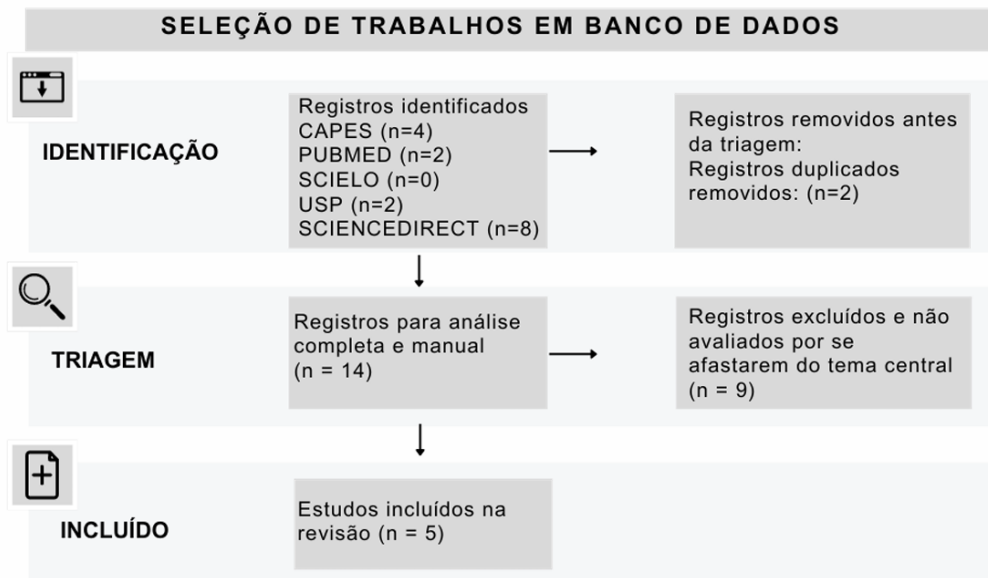
INCLUSÃO 	EXCLUSÃO 
A) Ser encontrado através das palavras-chaves de busca: "Agronegócio", "Agribusiness", "ESG".	A) Ter sido publicado anteriormente ao ano de 2010
B) Assunto principal sendo abordagens ESG no Agronegócio	B) Ser duplicado
	C) Não possuir trabalho completo disponível na web
	D) Não possuir como tema central abordagens de ESG no Agronegócio

From the screened articles, qualitative reading and analysis were carried out in order to identify the main gaps and trends on the integration of ESG governance in agribusiness.

RESULTS AND DISCUSSION

To start the systematic analysis, a search was conducted in relevant online databases, using the keywords "agribusiness" and "ESG" in both Portuguese and English. In CAPES, 4 records were identified, 2 in PUBMED, none in SCIELO, 2 in USP and 8 in ScienceDirect. Based on these results, exclusion criteria "A", "B" and "C" were applied, resulting in the exclusion of 2 records. With the remaining 14 records, the manual analysis began, focusing on the application of exclusion criterion "C". In this context, 9 records were excluded because they addressed divergent topics. At the end of the process, 5 records were incorporated into the systematic review (Figure 2).

Figure 2 – Selection of works in databases, applying the inclusion and exclusion criteria.



The 5 studies included in the systematic review were:

Table 1: studies selected and included in the systematic review.

Author	Work
Brice et. al, 2022.	Immaterial animals and financialized forests: Asset manager capitalism, ESG integration and the politics of livestock
Martinez, 2020.	The GAS-Agro Model for sustainable development projects
Romanini, 2023.	Demarketing and strategic opportunities for agribusiness in Mogi das Cruzes/SP: brands aligned with global objectives
Machado et. al, 2023.	Corporate social responsibility: an analysis of large companies in the agribusiness sector in Brazil
Oliveira, 2023.	ESG dimensions applied to agribusiness: a systematic literature review

- What are the main results and trends identified in the literature regarding the influence of environmental, social and governance issues in agribusiness:

For Brice et al., (2022), the influence of ESG in agribusiness is linked to the increase in investment practices that incorporate environmental, social, and ethical considerations. Financial markets emerge as crucial spaces to discuss and negotiate these concerns, provoking changes and externalizations that can impact public issues. Institutional investors demonstrate an increasing focus on public issues such as decarbonization and deforestation, which can generate commercial benefits. However, the study highlights the need to consider the political and environmental implications of these actions. In addition, it points out that the involvement of investors in agribusiness issues expands studies on

sustainable investment, opening opportunities to investigate which environmental and ethical issues are a priority for universal owners and why different issues are highlighted or ignored.

According to Martinez (2020), in the social sphere, the integration of sustainability is essential to promote human well-being and align with environmentally responsible practices. Companies in the sector must adopt measures such as ensuring good working conditions, compliance with labor laws, elimination of child labor, and wage appreciation to motivate workers. Gender equity, promoting diversity, and inclusion of minorities are also priorities, contributing to decent jobs and alignment with the Sustainable Development Goals (SDGs). Investing in communities, infrastructure, supporting social projects and valuing small local businesses are practices that strengthen the organization's surroundings.

In the environmental context, agribusiness companies face increasing challenges due to population growth, demanding more intensive agricultural production. Adopting practices aligned with ESG trends is crucial to ensure sustainability. This involves evaluating and increasing efficiency in water, carbon and energy footprints, use of renewable sources, waste management, traceability of the production chain and protection of biodiversity. Compliance with environmental rules, such as the Forest Code, and the search for environmental financing are essential strategies. In addition, the promotion of ecotourism and the use of natural methods of adversity control contribute to environmental responsibility.

As for the image of Brazilian agribusiness, the adoption of ESG criteria is seen by the author as a validation of the performance of organizations in the country, facing criticism and showing results in a quantitative way before the global community. These criteria, when incorporated into strategic planning, generate positive impacts on the organizational network, directly influencing profitability. Impact investments from recognition in sustainability reports strengthen Brazil's positive outlook. The ESG-Agro Model, with its three pillars – Governance, Environmental, and Social – guides crucial discussions, promoting a change in mentality aligned with the Sustainable Development Goals and accelerating the fulfillment of the 2030 Agenda in the country (MARTINEZ, 2020).

Romanini (2023) reinforces that the growing perception that sustainable practices, innovation, and ethical responsibility are essential in agribusiness highlights the positive influence of ESG on the image of companies, not only as an ethical imperative, but as an effective strategy to ensure stakeholder commitment and satisfaction.

ESG policies are highlighted by Machado et al. (2023) for exerting a comprehensive influence on all companies, regardless of their sectors of operation. The importance of organizational practices and postures is highlighted, which not only directly affect society and the environment, but also highlight the need for actions that generate positive socio-environmental impacts and add value to the brand of products or services. The reporting of ESG policies, according to the author, represents a direct channel of visibility with stakeholders, being essential for effective communication. In addition, the author points out that the sustainability report is a positive vehicle, which goes beyond providing data; It acts as a direct representation of the organization. In short, the author highlights the importance of a transparent and structured approach in the implementation and communication of ESG policies to strengthen the company's image and trust.

Companies that adopt ESG practices, considering environmental, social, and governance aspects, can achieve significant advantages in terms of growth and market position, according to Oliveira (2023). They also highlight the crucial importance of strengthening small and medium-sized agricultural enterprises as an integral part of Corporate Social Responsibility (CSR) initiatives, thus contributing to the sustainable management of resources.

The authors cite growing stakeholder attention to the connection between ESG and business performance. This insight underscores the relevance of these criteria in building a strong reputation and ensuring sustainable business practices. While acknowledging the importance of including ESG practices, the authors highlight not only the direct benefits for the growth and market position of agricultural enterprises, but also the essential contribution to social responsibility and sustainable resource management.

Table 2: Main results and trends identified in the literature in relation to the influence of environmental, social and governance issues in agribusiness

Author	Theme	Influence identified
Brice et al., 2022	Governance	Companies that incorporate ESG practices are more likely to receive investment that incorporate environmental, social, and ethical considerations; increasing focus on public issues such as decarbonization and deforestation by institutional investors; expansion of studies on sustainable investment.
Martinez, 2020	Social	Integrating sustainability can promote human well-being and environmentally responsible practices; adoption of measures such as good working conditions, gender equity, promotion of diversity and inclusion of minorities.
Martinez, 2020	Environmental	Adopting practices aligned with ESG trends are essential to ensure sustainability, such as efficiency in water, carbon, and energy footprints, use of renewable

		sources, waste management, traceability of the production chain, and protection of biodiversity.
Martinez, 2020	Governance	Adoption of ESG criteria as a validation of the performance of organizations, generating positive impacts on the organizational network and influencing profitability; strengthening of Brazil's positive outlook.
Romanini, 2023	Social	Sustainable practices, innovation and ethical responsibility as an effective strategy to ensure stakeholder commitment and satisfaction.
Machado et al., 2023	Governance	ESG policies exerting comprehensive influence on all companies, directly affecting society and the environment; reporting of ESG policies as a direct channel of visibility with stakeholders and a positive vehicle for effective communication.
Oliveira, 2023	Social	Strengthening small and medium-sized agricultural enterprises as an integral part of Corporate Social Responsibility (CSR) initiatives; contribution to the sustainable management of resources.
Oliveira, 2023	Environmental	Significant advantages in terms of growth and market position for companies that adopt ESG practices, as well as contribution to social responsibility and sustainable resource management.

Based on the influences of ESG in agribusiness, a word cloud was built with the identified keywords, presented in Figure 3.

Figure 3 – Word cloud of main ESG influences in Agribusiness.



- What are the gaps identified in the literature in relation to understanding the intersection between environmental, social, and governance issues in agribusiness?

The gaps identified in the literature in relation to the understanding of the intersection between environmental, social and governance issues in agribusiness reveal the pressing need for a more effective integration of sustainable objectives in corporate governance planning.

The implementation of structural measures is highlighted as crucial, given that these measures not only impact the fundamental structure of the organization but also have significant implications on its essence and functioning. The primary challenge in this scenario is to mitigate asymmetries and conflicts of interest, highlighting the importance of transparent and consistent approaches.

Martinez (2020) emphasizes that transparency plays a key role in this context, going beyond the simple disclosure of information. Full disclosure of information and compliance of conduct emerge as essential means to address the challenges presented by asymmetries and conflicts of interest. Therefore, the proposed approach highlights the importance of a comprehensive restructuring of the system in charge of designing and implementing Corporate Sustainability policies and strategies. This restructuring is considered vital to meet not only regulatory requirements but also to effectively incorporate sustainable principles and practices into agribusiness operations and organizational culture.

For Brice et al. (2022), environmental issues, although they may pose specific financial risks for certain companies, are often considered insignificant in the overall portfolio, from a governance perspective. The lack of tangibility of these issues for most investing companies makes it difficult to incorporate environmental concerns into practice, despite their recognition as ethically and sectorally important. The author highlights the importance of assessing risks inside and outside the business, distinguishing those that affect the entire production chain from sector-specific risks, both economically and politically. The study also emphasizes the need to analyze how financial institutions and markets deal with environmental and social issues, highlighting the importance of turning these concerns into ethical and political financial products.

According to Romanini (2023); Martinez (2020), the agribusiness scenario reveals substantial gaps in the ESG scope, highlighting the urgent need for innovative approaches and effective solutions. It is imperative to develop methodologies that offer guidance and support to the various local participants, aiming at the adoption of agricultural practices in line with the Sustainable Development Goals (SDGs). One of the critical gaps identified is the exhaustion of the business model based on constant growth, without due consideration of long-term sustainable gains. This gap is compounded by the lack of projects that promote

digitalization, activist communication, and education on sustainable consumption in the agricultural sector. The absence of initiatives in these essential areas further widens existing gaps, potentially resulting in significant collapses that affect not only the communities involved, but also the natural resources vital to the environmental balance. The urgency to address these gaps is crucial to ensure the sustainability of agribusiness and to promote a more resilient business model aligned with ESG principles.

Machado et al. (2023) identify great opportunities for improvement in companies' ESG policies, evidencing a notable disparity between the grandiosity of the descriptions of actions on paper and the absence of quantitative data that effectively supports the execution of these actions in practice. This discrepancy, highlighted by the author, can result in diverse and distorted interpretations by stakeholders about the reality of the organization.

Given this scenario, crucial questions arise about the effective implementation of sustainable practices in the environment and society, contrasting with the possibility that some actions are just company formalities. In addition, the author highlights the critical importance of sustainability reports being aligned with the company's policies, requiring clear communication and accurate organization of information. This not only ensures compliance with internal guidelines, but also contributes to conveying a transparent and reliable vision, essential to strengthen the organization's trust and credibility with its stakeholders.

Oliveira (2023) adds that the existence of substantial areas of improvement in the current ESG landscape is evident, requiring immediate attention. The government's performance stands out as a crucial factor in establishing more precise and effective supervision, aligned with rights and responsibilities within the scope of ESG, thus driving a significant advance in business performance. It becomes clear that adjustments to government fiscal and financial policies are needed, especially to provide specific support to agroforestry companies committed to transparency in their sustainability reporting. Optimizing the incorporation of ESG by companies requires improving efficiency in execution, along with establishing positive communication with stakeholders. This approach, in turn, will have beneficial effects on the overall performance of corporations. In addition, the critical importance of companies prioritizing the interests of stakeholders is highlighted, going beyond economic gains and considering joint social and environmental impacts.

Table 3: Main gaps identified in the literature in relation to environmental, social and governance issues in agribusiness.

Author	Theme	Identified gap
Martinez, 2020	Governance	Pressing need for a more effective integration of sustainable objectives in corporate governance planning; implementation of structural measures to mitigate asymmetries and conflicts of interest; importance of transparency and full disclosure of information; Comprehensive restructuring of the system to embed sustainable principles and practices into operations and organizational culture.
Brice et al., 2022	Environmental and Social	Lack of tangibility of environmental and social issues for most investing companies; difficulty in the practical incorporation of environmental concerns; the need to assess risks inside and outside the business; importance of transforming environmental and social concerns into ethical and political financial products.
Romanini, 2023	Environmental and Social	Substantial gaps in the scope of ESG in agribusiness; the need for innovative approaches and effective solutions; development of methodologies for guidance and support to local participants; exhaustion of the business model based on constant growth; lack of digitalization projects, activist communication and education on sustainable consumption; urgency to address these gaps to ensure the sustainability of agribusiness.
Machado et al., 2023	Environmental	Discrepancy between descriptions of actions on paper and absence of quantitative data that effectively support the execution of these actions in practice; diverse and distorted interpretations by stakeholders; critical importance of sustainability reports being aligned with the company's policies; need for clear communication and accurate organization of information to strengthen the trust and credibility of the organization.
Oliveira, 2023	Governance	Substantial gaps in the current ESG landscape; the need for government action to establish more precise and effective supervision; adjustments to fiscal and financial policies to provide support to companies committed to transparency in their sustainability reporting; optimization of the incorporation of ESG by companies; prioritization of the interests of stakeholders; promotion of more ethical and sustainable business practices.

From the gaps presented by the authors, a word cloud was constructed, with the keywords identified in Figure 4.

restructuring of the system to incorporate sustainable principles into operations and organizational culture.

In addition, there is a lack of tangibility of environmental and social issues for many investing companies, making it difficult for them to be incorporated into practice and to properly assess the associated risks. This highlights the need to transform environmental and social concerns into ethical and political financial products.

Other gaps identified include the need for innovative approaches and effective solutions, development of methodologies for guidance and support to local participants, and urgency to address these gaps to ensure the sustainability of agribusiness. In addition, it is crucial to bridge the discrepancy between descriptions of actions on paper and the absence of quantitative data that effectively supports the execution of these actions in practice, as well as to promote clear communication of information to strengthen the trust and credibility of organizations.

Therefore, to advance the effective integration of ESG in agribusiness, collaborative efforts are needed between companies, stakeholders, governments, and other stakeholders, aiming to address these gaps and promote more ethical, sustainable, and transparent business practices.

REFERENCES

1. Boraschi Machado, M. E., et al. (2023). Responsabilidade social corporativa: Uma análise das grandes empresas do setor de agronegócio no Brasil. *Life Style*, 10, e01564. <https://doi.org/10.XXXX>
2. Brice, J., et al. (2022). Immaterial animals and financialized forests: Asset manager capitalism, ESG integration and the politics of livestock. *Environment and Planning A: Economy and Space*, 54(8), 1551–1568. <https://doi.org/10.XXXX>
3. De Campos Filho, E. S., & De Oliveira, E. C. (2023). As dimensões ESG aplicadas ao agronegócio: Uma revisão sistemática de literatura. *Revista de Gestão e Secretariado (Management and Administrative Professional Review)*, 14(11), 20304–20326. <https://doi.org/10.XXXX>
4. Forni, D. F., & Romanini, A. V. (2023). Demarketing e oportunidades estratégicas para o agronegócio em Mogi das Cruzes/SP: Marcas alinhadas aos objetivos globais – Práticas de pesquisas tecnológicas. *Revista Foco*, 16(3), e1230. <https://doi.org/10.XXXX>
5. Medina Campos, V., et al. (2022). Empresas ESG: Uma nova perspectiva para enfrentar os desafios do capitalismo além da renda mínima. *n.*, 1, 89–104. <https://doi.org/10.XXXX>
6. Neves, M. F., & Martinez, L. F. (2020). O modelo GAS-Agro para projetos de desenvolvimento sustentável. *Revista Agronomia Brasileira*, 4. <https://doi.org/10.XXXX>
7. Pinto, M. E. L., et al. (2016). ESG em companhias do agronegócio: Um estudo das práticas adotadas e a sua relação com os ODS. *Correspondências & Análisis*, 15018, 1–23. <https://doi.org/10.XXXX>