

GREENWASHING AND DISINFORMATION: THE TOXIC ADVERTISING OF BRAZILIAN AGRIBUSINESS ON SOCIAL MEDIA

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ABSTRACT

Agribusiness, a cornerstone of Brazil's economic sectors, wields considerable political clout through entities like the Frente Parlamentar da Agropecuária (Parliamentary Agricultural Front; FPA), a potent force in the country's Congress and appears to be the main driver of the anti-environmental lobby. The FPA sought to influence labour, land and tax legislation and was an important ally of Jair Bolsonaro's administration, aligning closely with the former president's agenda of environmental deregulation, which mirrored the economic priorities of agribusiness interests. However, the imperative to maintain a favourable public perception of the agricultural sector is evident in various communication strategies, including the deployment of paid advertisements on online platforms. In this sense, the objective of this research is to scrutinise the potential presence of greenwashing and/or disinformation within the 158 advertisements disseminated by the FPA on Facebook and Instagram throughout 2023. Using Meta's Ad Library interface, we collected the advertisements and employed three complementary analytical approaches. These methodologies enabled us to identify and interpret the discursive tactics employed by the FPA to "enhance the image of agriculture": automatic word counting and co-occurrence analysis, content analysis and discourse analysis. The advertisements analysed show that Brazilian agribusiness uses sustainability as a form of greenwashing and disinformation in

its online communication efforts. The FPA's digital advertising uses these discursive strategies to vilify social movements advocating for land reform and instigate fear regarding legal uncertainties surrounding property rights. Our findings indicate that these advertisements advocate for the preservation of the current socio-economic landscape in the Brazilian rural area while propagating denialism regarding the environmental impacts of agribusiness.

KEYWORDS

disinformation, greenwashing, Frente Parlamentar da Agropecuária, digital advertising, anti-environmental lobby

GREENWASHING E DESINFORMAÇÃO: A PUBLICIDADE TÓXICA DO AGRONEGÓCIO BRASILEIRO NAS REDES

RESUMO

O agronegócio, um dos principais setores econômicos do Brasil, compõe uma das mais poderosas forças políticas no congresso do país, a Frente Parlamentar da Agropecuária (FPA), e aparece como o principal impulsionador do *lobby* anti-ambiental. A FPA busca incidir sobre a legislação trabalhista, fundiária e tributária e foi uma importante aliada do Governo de Jair Bolsonaro, uma vez que a agenda de desmonte ambiental do ex-presidente ia ao encontro dos interesses econômicos do agronegócio. No entanto, a necessidade de garantir uma imagem positiva do setor se reflete em diversas estratégias de comunicação, inclusive na veiculação de anúncios pagos nas plataformas online. Nesse sentido, a presente pesquisa pretende analisar a possível presença de *greenwashing* e/ou desinformação nos 158 anúncios publicados pela FPA no Facebook e Instagram durante o ano de 2023. Após coletarmos os anúncios na interface da Biblioteca de Anúncios da Meta, adotamos três abordagens complementares de análise que nos permitiram identificar e interpretar as estratégias discursivas empregadas pela FPA para “melhorar a imagem do agro”: contagem automática de palavras e análise de coocorrência entre elas, análise de conteúdo e análise de discurso. Nos anúncios analisados, a sustentabilidade é instrumentalizada pelo agronegócio brasileiro como *greenwashing* e desinformação em sua comunicação publicitária online. Essas estratégias discursivas são utilizadas na publicidade digital da FPA para criminalizar os movimentos sociais que lutam por uma reforma agrária e para disseminar pânico sobre inseguranças jurídicas relacionadas ao direito à propriedade. De uma forma geral, nossos resultados mostram que os anúncios defendem a necessidade de manutenção do *status quo* das relações socioeconômicas no campo brasileiro e promovem negacionismo em relação aos impactos ambientais do agronegócio.

PALAVRAS-CHAVE

desinformação, *greenwashing*, Frente Parlamentar da Agropecuária, publicidade digital, *lobby* anti-ambiental

1. INTRODUCTION

Brazil, home to the largest expanse of tropical rainforest on the planet, holds a pivotal position in global sustainability due to its environmental policy. Changes in land use, particularly deforestation to expand the agricultural frontier, stand as the primary cause of greenhouse gas emissions in the country (Pereira et al., 2020). Agribusiness, a

cornerstone of the country's main economic sectors, currently contributes approximately 24% to the country's gross domestic product (Centro de Estudos Avançados em Economia Aplicada, 2023). Its considerable economic influence translates into political power, with the sector holding substantial representation in the Brazilian legislature, making up the largest caucus in the National Congress: the Frente Parlamentar da Agropecuária (FPA), known as the "ruralist caucus" or "ox caucus" (Noberto et al., 2022). Within this context, agribusiness emerges as the main driving force behind the anti-environmental lobby in Brazil (Castilho, 2018).

Established in 2002, the FPA prioritises "the modernisation of labour, land and tax legislation, as well as the regulation of Indigenous lands and quilombola areas, to ensure the legal certainty essential for the sector's competitiveness" (Frente Parlamentar da Agropecuária, n.d., para. 4). Comprising members from all regions of Brazil, the FPA currently encompasses 374 parliamentarians from 20 different political parties and positions. Although the Frente has members from the Workers' Party, Lula's party has established itself as a supporter of land struggle movements. It is perceived as a political adversary of the ruralists (Bruno, 2021).

The FPA was an important ally of Jair Bolsonaro's administration (2019–2022), aligning closely with the former president's agenda of environmental deregulation, which mirrored the economic priorities of the agribusiness sector's interests. His environmental policies facilitated the expansion of livestock production in the Amazon region (Pereira et al., 2020) while concurrently undermining crucial environmental governance structures and regulations, cutting budgets for scientific research, monitoring and environmental protection (Athayde et al., 2022). However, in 2023, the Workers' Party reassumed the presidency of Brazil, initially met with apprehension by the FPA. The Frente accused the new Government of harbouring ideological biases against agribusiness (Borges, 2023).

One of the FPA's communication strategies involves amplifying paid advertisements on Facebook and Instagram. Through Meta's Ad Library, we collected 718 advertisements run by the FPA from January 1 to September 15, 2023. In the context of digital platforms, advertising content frequently leverages the strategy of avoiding the appearance of traditional advertisements. Instead, it adopts the language and visual style of organic content, thereby making its economic interests less obvious (Evans & Wojdyski, 2020). The limited attention given in existing literature to this phenomenon, often referred to as the "identity crisis" of advertising on digital platforms, particularly concerning sensitive topics like environmental debate, underscores the importance of research endeavours aimed at addressing this gap.

In this sense, the objective of this research is to scrutinise the potential presence of greenwashing and/or disinformation within the advertisements disseminated by the FPA on the Meta platform throughout 2023. In the forthcoming section, we will delve into our understanding of greenwashing, which entails the promotion of environmentally friendly activities in advertising campaigns to divert attention from environmentally hostile practices (Netto et al., 2020). Additionally, we define "disinformation" as a deliberate strategy aimed at manipulating public opinion through the dissemination

of false, decontextualised information or distorted frameworks (Fallis, 2015; Wardle & Derakhshan, 2017). The choice of the year 2023 allows us to examine the advertising strategies employed by the FPA at the onset of a Government perceived as not aligned with the economic interests of the agricultural sector. By contextualising the political and economic landscape of agribusiness in Brazil, along with the activities of the FPA, and drawing upon scientific research on disinformation and greenwashing within the advertising domain, our research seeks to address two primary questions (PQ):

PQ1: what are the primary themes and frames in the advertisements advocating for agribusiness disseminated by the FPA on Meta's platforms?

PQ2: does the FPA's advertising on Meta's platforms incorporate strategies of greenwashing and/or disinformation? If so, how?

2. BRAZILIAN AGRIBUSINESS AND THE FRENTE PARLAMENTAR DA AGROPECUÁRIA

The “green revolution” in Brazil, which took shape towards the late 1980s (Müller, 1993), played a pivotal role in institutionalising agribusiness within the country. It positioned the sector as a political, economic and social structure in the country, promoting exports while creating a rift with rural groups (Silva, 1998). The military dictatorship in Brazil between 1964 and 1985 worked to industrialise the sector (Carvalho, 2019), consolidating the developmental profile of agribusiness (Santos et al., 2019).

The surge in agricultural production in Brazil has brought about escalating social and environmental repercussions associated with land use. As outlined by Bombardi (2017), the conversion of land intended for domestic food cultivation facilitated alliances among Brazil's ruling elite, enabling them to control the production of commodities (including primary agricultural, livestock, mineral, and environmental goods) at prices dictated by international demand. Moreover, this agricultural paradigm stands as a primary contributor to greenhouse gas emissions in the country, with the livestock, agriculture, and food industries being significant sources (Pereira et al., 2020).

Brazilian agribusiness has built a strong anti-environmental lobby by leveraging its agendas in the political field. The FPA receives counsel from the Instituto Pensar Agropecuária, which is supported by 38 associations, including 22 major agribusiness corporations such as Bayer, JBS, Syngenta, Bunge, and Cargill. The institute's funders also include banks such as Itaú, Banco do Brasil, and Santander (Arroyo, 2019). Moreover, there is a conflict of interest, as certain FPA parliamentarians own land across various regions of Brazil (Fuhrmann, 2019).

Santos et al. (2019) note that the FPA's achievements have led to setbacks in Brazilian legislation, notably regarding opposition to agrarian reform and land demarcation, among other issues. One of the FPA's disputed agendas is the “Milestone Thesis”, a 2009 legal thesis which stipulates that Indigenous reserves can only be demarcated if they were occupied by original peoples when the Constitution was promulgated in 1988 (Câmara dos Deputados, 2023). The approval of the thesis would allow rural producers to expand their properties but would also exacerbate historical conflicts with Indigenous

peoples. Additionally, the proposed construction of Ferrogrão, a railway aiming to connect roads in Mato Grosso and Pará for commodity transportation (Xingu +, n.d.), contributes to further conflicts due to the potential socio-environmental impacts of the project (Melito, 2023).

In the ongoing dispute for political and economic hegemony in rural areas, the FPA has demonstrated considerable success by establishing supra-party caucuses, forging alliances with traditional media outlets, and nurturing political and party leaders who champion the interests of the agricultural sector (Bruno, 2015). Media corporations play a pivotal role in promoting the agenda of agribusiness. The interest in refurbishing the sector's image has led to the creation of broadcasters and programmes dedicated to disseminating a positive image of the agricultural model (Carvalho, 2014). The launch of Rede Globo's "agro é tech, agro é pop, agro é tudo" (agro is tech, agro is pop, agro is everything) campaign in 2016 ushered in a new era in agricultural advertising (Santos et al., 2019). In addition to accentuating "agro" as the "wealth of the country", the campaign propagates the idea that its production model epitomises technological advancement, modernity, prosperity, and the ongoing battle against rural poverty (Moncau, 2022).

These deceptions have constructed a rhetoric of legitimacy for the sector, reviving its historical interests: profitability, competitiveness and disregard for the rights of rural workers and traditional populations (Bruno, 2015). As a constituent of the dominant political class, the FPA endeavours to advance its interests through State mechanisms (Simionatto & Costa, 2012), effectively transforming the State into a pro-agribusiness instrument and hindering social movements' ability to challenge this hegemony. In light of controversial actions within the political and economic spheres, it becomes imperative to understand the communication strategies employed by agribusiness on social media platforms.

3. GREENWASHING, DISINFORMATION AND ADVERTISING

Online platforms have ushered in a new form of advertising. By combining data on billions of users with artificial intelligence, the internet has made it possible to target personalised advertisements according to each consumer's profile. In recent decades, advertising has been significantly influenced by media fragmentation, the expansion of digital media and the audience's increasing freedom to choose the channels, devices, and programmes they prefer to consume (Balonas, 2019). In Brazil, major media conglomerates have witnessed the migration of advertising investment to social media platforms (Bell et al., 2017).

Currently, advertising revenue stands as the primary source of income for Meta and Google (Meta Investor Relations, 2023; United States Securities and Exchange Commission, 2023). The business model of these tech giants revolves around advertising, as they generate profits by providing advertisers with services for personalising and targeting messages to hyper-segmented audiences (Dobber et al., 2023). Consequently, predictions regarding user behaviour based on personal data have become these companies'

primary capital (Zuboff, 2018/2021). Unlike advertising in traditional media, which is open to public scrutiny as it is presented equally to the entire audience, programmatic advertising on digital platforms is distributed through opaque algorithms, meaning there is no transparency concerning the content of the advertisements or their distribution criteria (Jamison et al., 2020).

Recent studies indicate that major platforms are profiting from environmental disinformation and misleading sustainability practices, as their advertising systems lack transparency and accountability mechanisms. A recent report exposed Google's failure to adhere to its own policies aimed at combating disinformation, revealing instances where advertisements disseminating lies about climate change were displayed in videos (Climate Action Against Disinformation & Centre for Countering Digital Hate, 2023). Similarly, another study exposed the strategic use of disinformation and greenwashing in the fossil fuel industry, along with the complicit role played by major platforms in fighting environmental disinformation (Bunchan et al., 2023).

Greenwashing can be defined as disclosing environmentally friendly activities in advertising campaigns to divert attention from environmentally hostile practices (Netto et al., 2020). According to Delmas and Burbano (2011), greenwashing involves misleading consumers about an organisation's environmental practices or the environmental benefits of a product or service. In essence, the phenomenon is regarded as a deliberate corporate action involving deceptive elements aimed at manipulating stakeholder perceptions.

Research on greenwashing in advertising has revealed that advertisements tend to contain a low level of factual claims and rely heavily on emotional and ambiguous appeals (Baum, 2012; Naderer et al., 2017). Greenwashing has also been defined as the selective disclosure of information by associating two simultaneous behaviours: withholding the disclosure of negative information related to the environmental performance of a company or sector while simultaneously exposing positive information about environmental performance, social responsibility initiatives and sustainable practices (Netto et al., 2020).

For Baum (2012), greenwashing necessarily involves the deliberate dissemination of disinformation. Thus, the production of false information constitutes an integral aspect of greenwashing, aligning this practice with disinformation strategies (Naderer et al., 2017). However, there are differences between the concepts of "greenwashing" and "disinformation", referring here to an intentional strategy to manipulate public opinion. It involves the dissemination of false or decontextualised information, discrediting adversaries, broadcasting sensationalist or hyper-partisan content and reproducing real news with distorted frameworks (Fallis, 2015; Wardle & Derakhshan, 2017).

In Brazil, agribusiness has engaged in corporate marketing endeavours aimed at concealing anti-ecological practices, seeking to enhance its legitimacy among consumers and in international competition (Budó, 2017). Budó points out that within this context, the concept of greenwashing is expanded to encompass attempts to control information concerning the adverse effects of pesticides and genetically modified organisms by influential sectors in Brazil. The construction of the image of Brazilian agribusiness as a hegemonic coalition of significant economic, political and social influence in the debate

on the country's development is essential amidst the antagonistic dispute between the discursive practices of this sector and the agroecological discourse (Bittencourt et al., 2022). In fact, some Brazilian agribusinesses have resorted to harmful propaganda and greenwashing strategies to impede the implementation of energy transition policies and regulations for product origin traceability and advocate for regulatory dismantling (Regattieri, 2023). Regattieri suggests that Brazilian agribusiness's denialist repertoire was imported from the global far right in an attempt to manipulate public opinion by generating controversies, uncertainties, and conflicts of interest between industry and science.

These strategies draw inspiration from communication tactics employed by the tobacco industry, for example, which is notorious for manufacturing false controversies and doubts (Brandt, 2011). Companies whose operations are essentially destructive and inherently non-ecological (Naderer et al., 2017), such as airlines, manufacturers of plastic bottles or batteries, oil corporations and mining enterprises, invariably resort to greenwashing when they portray themselves as "green" or "environmentally friendly", as it is unlikely that any measures they take will extend beyond being merely superficial given the negative impact inherent in their activities. Historically, companies linked to fossil fuels have been primarily responsible for funding climate denialism, impeding countries' adherence to measures to tackle the problem. Denialist strategies promoted by companies in this sector include framing global warming as a theory rather than a fact, highlighting alleged uncertainties, promoting economic alarmism, and shifting responsibility onto individuals (Carrington, 2021).

It is crucial to acknowledge that the dissemination of false information is a widespread practice across various types of advertising strategies aimed at making products or services seem more appealing to consumers: for example, nutritional claims such as "fat-free" or "sugar-free" often target children and adolescents, who are more susceptible to harmful advertising tactics (Naderer, 2020). In this sense, vague assertions, emotional messages or false promises are not exclusive to "green" advertising. However, the dissemination of disinformation about ecological issues in advertisements can significantly undermine public support for environmental preservation and conservation policies (Kilbourne, 2013). Naderer et al. (2017) caution against the political, economic and social repercussions of disinformation in "green" advertising amidst the climate emergency. According to the authors, given the proclaimed influence of advertising on public opinion, greenwashing can affect how we address environmental challenges globally and contribute to climate inertia.

Due to public awareness and the increase in environmental problems, investors, consumers, governments, and organisations are becoming more vigilant and applying pressure on companies and productive sectors to disclose information about their environmental performance, eco-friendly products and social responsibility initiatives (Netto et al., 2020). However, with the evolution of "green" consumption since the 1970s, organisations and sectors have sought to capitalise on this segment by making sustainability and responsibility claims in their advertisements, even if their products or services are not truly "green" (Naderer et al., 2017). Despite the increasing prevalence of

greenwashing practices in recent decades, consumers are facing greater challenges in discerning truthful claims (Schmuck et al., 2018). Some organisations have endeavoured to educate consumers by conducting studies and creating guides on greenwashing to help the public identify companies' greenwashing practices (UL Solutions, n.d.).

In this sense, it is essential to understand the extent to which Brazilian agribusiness uses sustainability as a form of greenwashing and disinformation in its online advertising communication. Accordingly, we inquire about the advertising strategies employed by Brazilian agribusiness to engage with citizens who are increasingly vigilant about sustainability. This involves assessing the prevalence of false arguments, ambiguous statements, and emotional appeals conveyed by the FPA on behalf of the sector.

4. METHODOLOGICAL APPROACH

With approximately 150,000,000 users in Brazil on Facebook alone (Bianchi, 2023), Meta's reach can ensure widespread impact for disinformation campaigns run on its advertising network, especially if we consider the platform's advertising-orientated business model (Nieborg & Helmond, 2019). Meta's advertising and targeting policies have been the subject of controversy due to a lack of transparency, violation of user privacy and their exploitation for hate campaigns and political manipulation (Andreou et al., 2019; Jamison et al., 2020). In 2018, following scandals and public pressure, the company launched the Ad Library to archive content served on the company's advertising network, encompassing Facebook, Instagram, Audience Network and Messenger.

Data collection within the library involves searching for keywords associated with the advertisement or the advertiser's page. In this study, we searched for adverts run by FPA using the library's interface, allowing for the download of the content and metadata of the adverts. A total of 158 advertisements were collected from January 1 to September 14, 2023, when the data was acquired. Considering the library's transparency limitations (Le Pochat et al., 2022), the data collected here may not represent the entirety of investments made by the FPA but only the self-declared adverts, leading us to believe that the prevalence of adverts with disinformation and greenwashing may be higher than indicated by our data.

To analyse the data, we adopted three complementary analytical approaches. These methodologies enabled us to identify and interpret the discursive tactics employed by the FPA to "enhance the image of agriculture": automatic word counting and co-occurrence analysis, content analysis and discourse analysis. Initially, we conducted an automated word count using a script in the R programming language. We followed basic data cleaning procedures, such as removing URLs and non-alphanumeric symbols and converting all uppercase letters to lowercase. Additionally, we used a code to remove stop words, which are words with little semantic value, such as prepositions, articles, and conjunctions. Finally, to identify compound words, a human analysis was performed, which considered all n-grams (2-grams, 3-grams, and 4-grams) with more than 10 occurrences.

From this compiled list, we computed the correlation among the most frequently used keywords in the advertisements, thereby identifying the main thematic axes of the FPA's advertising communication. To validate the results, we conducted an exploratory analysis of the adverts' content. This approach offers the advantage of open mapping without predefined themes, ensuring that the identification of relevant issues remains unaffected by researchers' assumptions and biases. However, since this analysis only allows for the consolidation of textual content, we further examined the discourse present in the videos and images to enhance the interpretation of the themes.

In addition, we conducted a systematic content analysis of all the advertisements collected to identify those that portrayed a distorted image of agribusiness through the use of disinformation and greenwashing strategies. We adopted a majority voting protocol wherein authors examined all the advertisements, and in the event of dissent, a third analysis was conducted for validation (Lombard et al., 2006). Thus, we selected relevant examples and patterns for discourse analysis, which was approached from the perspective of the French school (Maingueneau, 2014). At this stage, we analysed the frame and tone of the posts, breaking down the pieces in which the FPA employs strategies of disinformation, manipulation and greenwashing.

Although we sought a mixed-methods approach to enhance the comprehensiveness and relevance of the analysis, the study has some limitations. Firstly, the transparency constraints of Meta's Ad Library (Le Pochat et al., 2022) may have resulted in an incomplete analysis of all the advertisements run by the FPA during the specified period. Additionally, the multimodal nature of the adverts' content, which may encompass text, video, and still images, among other formats, poses limitations to the analysis, particularly as the automated word count method may not capture textual content present in the videos.

5. FINDINGS AND DISCUSSION

5.1. THEMATIC AXES AND FRAMES

Through an automated analysis of term frequencies within the textual content of the advertisements, we can discern the most recurring themes and frameworks in the FPA adverts disseminated on Meta's platforms. Among the most frequently used words are what we term "operational" terms. These are words that pertain to the identification and description of the Frente, its members, and organisational structures ("FPA", "deputy", "Frente Parlamentar da Agropecuária", "sector", "president", and "senator" are some examples). There are also, among the most frequent terms, names of politicians and party acronyms ("PP", "PL", "Pedro Lupion", etc.). Moreover, there are several generic words associated with drawing attention to the advertised content ("check it out", "video", "click", "watch", etc.), as well as terms denoting the national scope of the enunciator ("Brazil", "Brazilian", "country", "national", "unity", etc.), among others. These words do not spell out specific themes or frameworks but are dispersed across adverts that encompass different thematic axes.

With this approach in mind, we opted for a methodological strategy that involved selecting terms explicitly indicative of themes and frameworks within the posts. Among the 100 most frequent words (Figure 1), we identified the following key terms associated with themes and frameworks: “property/properties” (33 ads), “invasions/invasion” (32 ads), “security” (29 ads) “law” (26 ads), “milestone thesis” (20 ads), “mst”¹ (16 ads), “tax reform” (15 ads), “crime” (15 ads), “development” (14 ads), “indigenous/indigenous people” (12 ads), “agrarian reform” (11 ads), “justice” (11 ads) and “ferrogrão” (six ads).

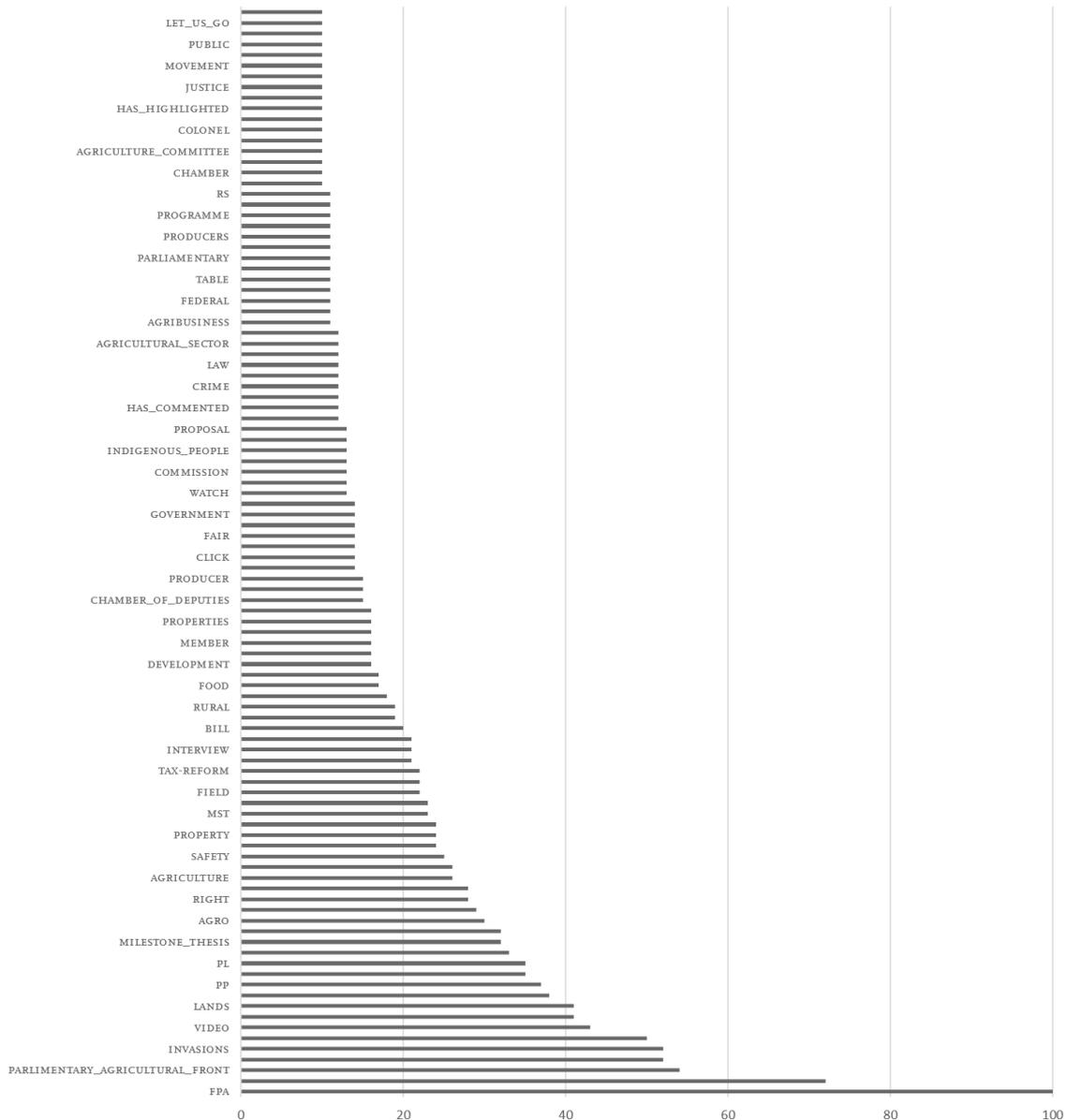


Figure 1. Frequency of the 100 most used terms in advertisements published by the Frente Parlamentar da Agropecuária profile on the Meta platforms

¹ “MST” is the acronym for the Movimento dos Trabalhadores Rurais Sem Terra (Movement of Landless Rural Workers), an influential social movement founded in 1984. Its core objectives involve advocating for agrarian reform and striving to democratise land access across Brazil.

In Figure 2, we created a heat map illustrating the co-occurrence of these terms within the same advertisements, aimed at identifying thematic axes, associated players and the frameworks present in them. Through an exploratory analysis of the corpus, combined with the heat map results, we defined five primary thematic axes and two sets of players. The thematic axes are “land invasions”, “Milestone Thesis”, “tax reform”, “economy”, and “Ferrogrão”, while the sets of players are “MST” and “Indigenous/Indigenous people”. Terms such as “property/properties”, “security”, “law”, “crime”, “development”, and “justice” emerge as frameworks for the thematic axes mentioned. Notably, the term “agrarian reform” was disregarded since the exploratory analysis revealed that in eight out of its 11 occurrences, the term appears only as a part of the organisational names such as the Instituto Nacional de Colonização e Reforma Agrária and the Comissão de Agricultura e Reforma Agrária. It is possible to observe that the terms chosen as thematic axes have little or no co-occurrence within the advertisements, indicating their independence and validating our selection.

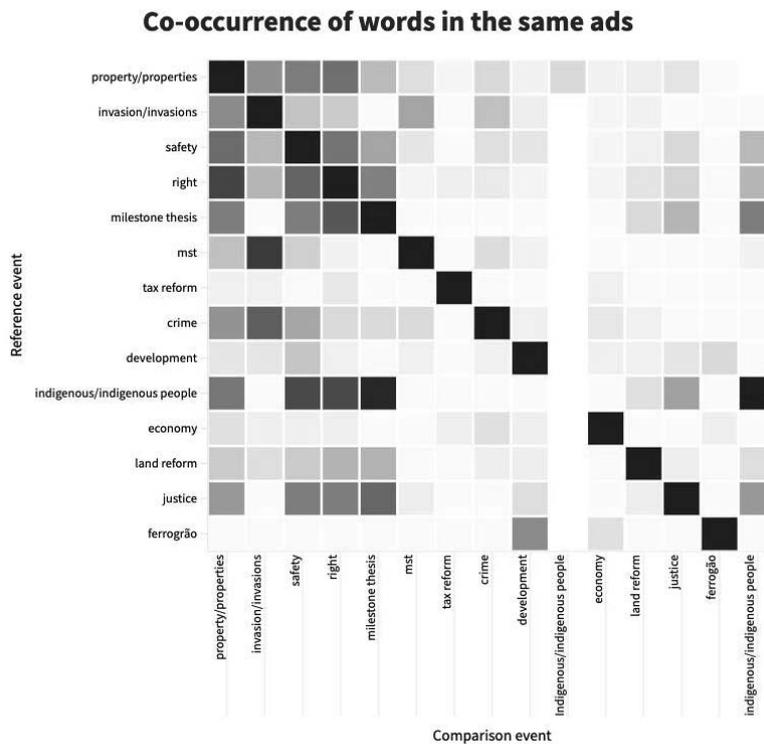


Figure 2. Heat map displaying the co-occurrence of terms within the same advertisements

Among the advertisements mentioning “invasion/invasions”, 41% also mention the “mst”. Conversely, 81% of the adverts mentioning the “mst” also include “invasion” or “invasions” in their text, suggesting the MST’s involvement in the debate on land invasions. Thus, we understand that the MST is a player within this thematic axis. Concerning the primary frames of the thematic axis, 50% of the adverts that include “invasion” or

“invasions” in their text also mention “property” or “properties”, 31% reference the word “crime”, 30% include the word “security” and 27% include “right”. Consequently, in the FPA’s adverts, the so-called “land invasions”, often promoted by the MST, are depicted as criminal acts threatening the right to property and the security of landowners. It is worth emphasising that the very choice of the term “invasion” instead of “occupation” carries ideological implications. While “occupation” refers to the subject position of the landless rural worker, based on the “property right”, “invasion” refers to the subject position of the landowner, based on the “right to property” (Indursky, 2002).

Among the adverts addressing the “Milestone Thesis”, 55% mention the term “Indigenous” or “Indigenous people”. When considering “Indigenous/Indigenous people” as a reference term, 92% of the adverts that include one of these terms also mention “Milestone Thesis”. In this way, Indigenous people are depicted as players involved in the debate on the thematic axis “Milestone Thesis”. Regarding the frameworks present in the thematic axis, 70% of the adverts on “Milestone Thesis” include the word “right”, 55% include “property” or “properties”, 55% include security, and 35% include “justice”. Therefore, in the adverts’ discourse, the bill limiting the possibility of the demarcation of Indigenous lands is framed as a matter of justice, law and the security of landowners where such demarcations could take place.

Figure 3 summarises the players and frameworks related to our analysis’s two main thematic axes: “land invasions” and “Milestone Thesis”. The opacity of the dotted line in the diagram corresponds to the co-occurrence of each word in the adverts on the respective themes.

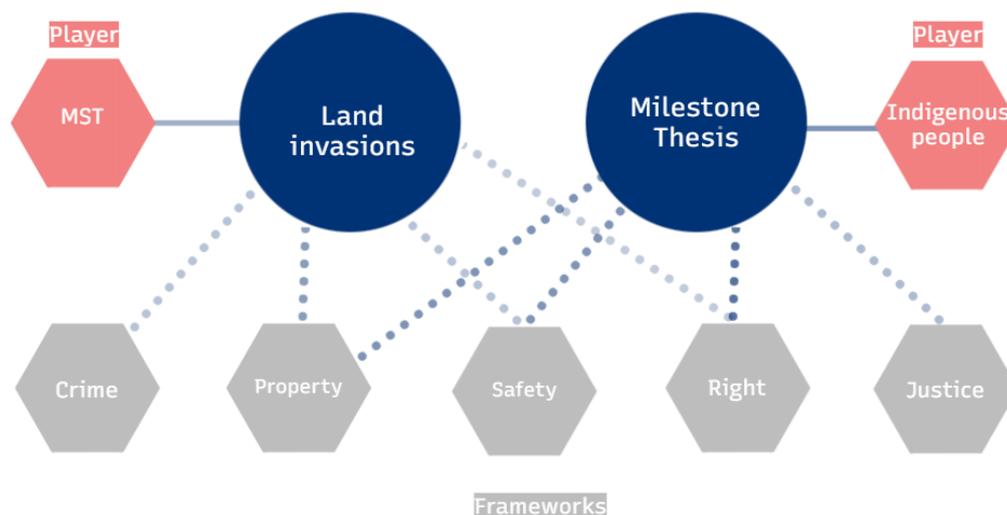


Figure 3. Players and frameworks related to the thematic axes “land invasions” and “Milestone Thesis”

Note. The intensity of the blue in the dotted lines indicates the percentage of co-occurrence of the terms.

“Tax reform” emerges as a thematic axis with little intersection with the most recurrent high semantic value terms selected in this analysis. Our exploratory analysis indicates that the adverts under this thematic axis aim to advocate for the interests of rural producers concerning the proposed changes to tax policy in Brazil. Figure 2 illustrates that only the word “right” is associated with “tax reform” in more than one advert (two in total, representing 13% of occurrences). In both cases, a “fair tax reform” is framed as an issue related to “the right to affordable food”.

“Economy” represents another thematic axis with limited correlation with the words analysed. Our exploratory analysis revealed advertisements emphasising the agricultural sector’s role as a driving force in the Brazilian economy. Only “property/properties” and “crime” appear in more than one advertisement alongside the term (each appearing in two advertisements in co-occurrence with “economy”).

Finally, half of the occurrences within the thematic axis “Ferrogrão” also include the word “development”. Additionally, one advertisement regarding Ferrogrão incorporates the word “economy”, and these are the only occurrences in these thematic axes. This suggests that the Ferrogrão infrastructure project is perceived as a developmental catalyst for Brazil.

In addition to analysing the thematic axes, it is crucial to underscore the relevance of the term “property” combined with its plural variation (“properties”) as a cross-cutting framework for different thematic axes. The terms “property/properties” were the most recurrent among the high semantic value terms considered in this analysis. Among the adverts containing one of these terms, 61% also include the word “right”, indicating that the right to property is a central concept propagated by FPA adverts. This concept upholds the status quo of land distribution in Brazil, staunchly opposing any notion of land redistribution, whether for agrarian reform purposes or to demarcate land for Indigenous peoples.

5.2. DISINFORMATION AND GREENWASHING

Our content analysis, conducted through human evaluation, identified that among the 157 advertisements examined, 61 (39%) contained some form of toxic or misleading discourse, as illustrated in Figure 4. In this analysis, we consider misleading or toxic discourses, those that provide false verifiable information, those that promote alarmism/fatalism, discourses that criminalise social movements, that deny the environmental impact of agribusiness and conspiratorial discourses. In the “greenwashing” category, we identified 27 adverts (17%). We consider adverts containing greenwashing those that portray agribusiness, as a whole, as environmentally responsible, thereby concealing the sector’s recognised environmental impacts.

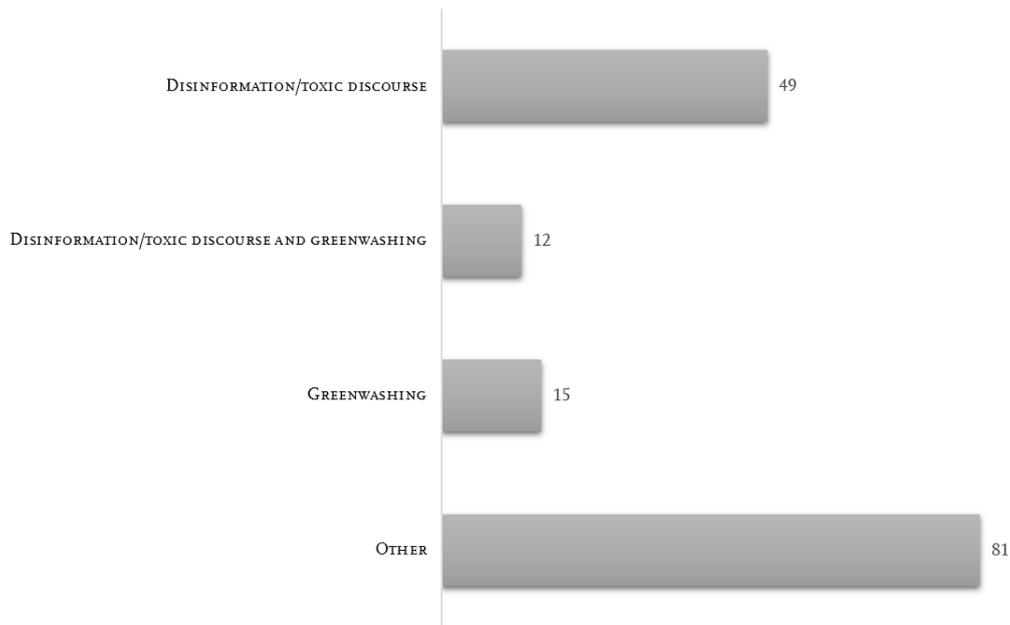


Figure 4. Number of advertisements featuring disinformation/toxic discourse and greenwashing in the examined corpus

We consider false verifiable information adverts that include statements or data that are known to be untrue. For example, one advertisement's video features the following line: "can you imagine a project generating over 370,000 jobs, 30,000 of them being direct positions, helping the development of the country and agriculture, all without any environmental impact? That's Ferrogrão" (<https://www.facebook.com/ads/library/?id=1281712859380537>). We classify this statement as misleading because no infrastructure project can have zero environmental impact (even if its efforts are made to minimise it).

In addition to false verifiable information, we also see the use of alarmism/fatalism as a disinformation strategy. Out of the 13 adverts identified as containing alarmism, 10 are related to the "Milestone Thesis" thematic axis. Therefore, in the FPA adverts, alarmism appears as a discursive strategy for addressing this issue. Overall, these adverts frequently employ a vocabulary that includes terms such as "threat", "uncertainty", "harm", and "losses", accompanied by numerical estimates predicting adverse outcomes for farmers and the population at large. Figure 5 shows an example of this discursive strategy. Moreover, in addition to employing alarmist language and disturbing estimates, the adverts often use the colour red (commonly associated with danger), as well as the pronoun "you", aiming to directly involve the reader in the perceived threats posed by the non-approval of the Milestone Thesis.

Frente Parlamentar da Agropecuária - FPA
 Patrocinado · Pago por Instituto Pensar Agropecuária
 Identificação da biblioteca: 3449799558641313

⚠️ Marco Temporal | Se você acha que a aprovação do Marco Temporal não tem nada a ver com você, presta atenção: a não aprovação impactará diretamente o seu bolso!

👥 Estamos falando em mais de 1 milhão e meio de empregos perdidos, mais de 360 bilhões de reais em produtos agrícolas que não poderão ser produzidos no país, grande aumento no preço dos alimentos e cerca de 42 bilhões de dólares não gerados por meio das exportações agrícolas. Precisamos do Marco Temporal para não prejudicar o povo brasileiro!

1,5 milhão de emprego a menos
R\$ 364,59 bi em produtos agrícolas que **NÃO** serão produzidos no país
Aumento significativo do preço dos alimentos
US\$ 42,73 bi em exportações agrícolas **NÃO** geradas

FONTE: FUNAI. ELABORAÇÃO: DIA

Figure 5. Frente Parlamentar da Agropecuária advertisement on the Milestone Thesis with alarmist content

Source. From Marco Temporal | Se você acha que a aprovação do Marco Temporal não tem nada a ver com você, presta atenção [Post], by Frente Parlamentar da Agropecuária - FPA, 2023b, Facebook. Library ID: 3449799558641313². (<https://www.facebook.com/photo.php?fbid=548436300794954&set=pb.100068857674657-2207520000&type=3>)

Note. Translation: “Milestone Thesis | If you think that the approval of the Milestone Thesis has nothing to do with you, pay attention: failure to approve will have a direct impact on your wallet! We’re talking about more than 1.5 million jobs lost, more than 360 billion reais in agricultural products that won’t be possible to produce in the country, a huge increase in food prices, and around 42 billion dollars not generated through agricultural exports. We need the Milestone Thesis to avoid harming the Brazilian people!”.

Regarding the criminalisation of social movements, most of the disinformation containing this narrative is on the thematic axis of “land invasions”. Criminalisation is evident in statements such as “increasing penalties for individuals involved in land invasions is essential to safeguarding property rights” (<https://www.facebook.com/ads/library/?id=135508952585668>) and “the MST’s practices do not resemble the struggle for land, but extortion and various other provisions of the criminal code [sic] figures” (<https://www.facebook.com/ads/library/?id=1663390137413440>). In one of the adverts, the FPA highlights the arrest of a former MST leader, as shown in Figure 6.

² <https://www.facebook.com/ads/library/?id=3449799558641313>

Figure 6. Advertisement by the Frente Parlamentar da Agropecuária discursively links the Movimento dos Trabalhadores Rurais Sem Terra to the arrest of a former member

Source. From *José Rainha, líder da Frente Nacional de Luta Campo e Cidade (FNL), grupo responsável pelas invasões de terras em diversas* [Post], by Frente Parlamentar da Agropecuária - FPA, 2023a, Facebook. Library ID: 433287598999090. (<https://www.facebook.com/photo.php?fbid=506527054985879&set=pb.100068857674657.-2207520000&type=3>)

Note. Translation: “José Rainha, leader of the National Front for Struggle in the Rural and the Urban areas (FNL), the group responsible for land invasions in several areas, is still in jail. According to press reports, the arrest is not related to the invasions but to the suspicion that the former MST leader is EXTORTING money from rural property owners in the...”. “ESTADÃO — José Rainha undergoes custody hearing and is remanded in custody on extortion charges. g1 — Justice keeps FNL leaders José Rainha and Luciano de Lima in prison. CNN Brazil — José Rainha arrested after leading farm invasions in SP”.

In the advert, the emphasis on the fact that the individual mentioned is a “former MST leader” is an attempt to implicate the movement in the crime committed discursively. Visually, the word “extort” is presented in capital letters right after the mention of MST, which corroborates the attempt to associate the crime with the image of the movement, even though the individual at issue no longer holds an active role within the MST.

An example of conspiracist discourse is an advertisement that states, “we are being governed by International Organisations with economic interests dressed up as environmental concerns [sic]” (<https://www.facebook.com/ads/library/?id=610674101176294>).

Almost all of the adverts marked as containing discourses denying the environmental impact of agribusiness were also classified in the “greenwashing” category. In Figure 4, they are depicted in blue. In addition to the statement above that the Ferrogrão project would have no environmental impact, this category also includes statements such as the one in Figure 7.



Figure 7. Advertisement denying the environmental impact of agribusiness

Source. From *Sustentabilidade | O Brasil segue representando quando o assunto é agricultura sustentável! Através de muitos anos de pesquisa, estudos e tecnologias* [Post], by Frente Parlamentar da Agropecuária - FPA, 2023c, Facebook. Library ID: 1338797093713366. (<https://www.facebook.com/photo.php?fbid=579478054357445&set=pb.100068857674657.-2207520000&type=3>)

Note. Translation: “Sustainability | Brazil remains at the forefront of sustainable agriculture! Driven by years of research, studies, and technological advancements, Brazilian agriculture has created systems that combine production with environmental conservation, becoming a world example when it comes to providing quality food and respecting the planet”. “BRAZIL — world reference in sustainable agriculture. Learn about some of the conservation systems that have made Brazil a benchmark in sustainable production”.

One of the primary greenwashing strategies employed in the FPA’s adverts is the assertion that Brazilian agribusiness epitomises sustainability. This assertion is constantly associated with the notion of scientific progress and increased productivity. In the corpus studied, statements such as “walking side by side with the environment, Brazil leads the world ranking in reducing environmental impacts in agricultural production” (<https://www.facebook.com/ads/library/?id=1437746120392536>) and “Brazil, so that there is no doubt, has sustainability in production and the vocation to feed the world while respecting the environment and combating committed. We will not accept ideologies overriding official satellite data and science” (<https://www.facebook.com/ads/library/?id=755405875984507>).

Another characteristic present in adverts containing greenwashing is the attempt to overrule conflict through a discourse of reconciliation between economic growth and sustainability (Krieg-Planque, 2010). Verbs such as “conciliate” and “ally” and expressions like “side by side” are used to promote the notion that there is no inherent contradiction between the expansion of economic activity and environmental protection. These

adverts say, for example, that with Ferrogrão, “our country will be more competitive, thousands of jobs will be created, billions of reais spent on freight will be saved, and it will be the best alternative in terms of sustainability” or that “the Frente’s support for this initiative reflects its members’ commitment to pursuing solutions that reconcile economic growth with environmental preservation, aiming for a prosperous future for the sector and the country”.

5.3. OTHER DISCURSIVE STRATEGIES AND REGULARITIES

In addition to the strategies of disinformation, toxic discourse and greenwashing, we identified other discursive regularities in the adverts used to create a distorted image of Brazilian agribusiness. In 26 adverts (16.6%), the focus is placed on the small producer as the protagonist of agribusiness. While terms like “small producers” or “family farming” are frequently mentioned in the adverts, words like “large estates”, “large producers”, or “landowners” are omitted. In one of the adverts, the text reads: “agribusiness x family farming | Did you know that family farming is a segment of agribusiness, not a competing sector?” (<https://www.facebook.com/ads/library/?id=594461118820772>). In the video accompanying this advertisement, Congressman Pedro Lupion states that

we cannot segregate producers. (...) We are all rural producers. The micro-producer, the small farmer, the settler, the newcomer to the rural area and the giant. We all have our share of responsibility; we generate employment; we generate income.

The attempt to include all rural producers in the same interest group is also an attempt to discursively nullify the contradictions in the rural areas, silencing historical agendas such as the struggle for land and the reduction of land inequalities in Brazil.

In 28 adverts (17.8%), we observed the use of emotional appeal strategies, most of them related to the thematic axes of the “Milestone Thesis” or “land invasions”. Overall, there is an attempt to portray small rural producers as potential victims of Indigenous land demarcations or land invasions by social movements. “This family would like to pass on the legacy of food production for generations. What’s stopping them? The uncertainty that the municipality of Arvoredo faces with the demarcations planned for the region” (<https://www.facebook.com/ads/library/?id=1365046254223082>) reflects this construction. Among these advertisements, we also find videos that use testimonies as a strategy to evoke emotional responses, individualising the problems. If the wording of the textual field of the adverts and the speech of the characters use terms that relate to concepts such as “family” and “legacy”, the videos that accompany the adverts employ cinematic strategies to reinforce the idea. For instance, they may feature different members of a family spanning multiple generations within the same frame, as depicted in Figure 8.



Figure 8. Frente Parlamentar da Agropecuária advertisements use testimonies as a strategy to evoke emotional responses to oppose the demarcation of Indigenous lands and land occupation. In this article, we have chosen to blur the faces of the individuals depicted

Source. From *Gerações, um amor inabalável pela terra e a paixão pela produção de alimentos, que agora enfrentam a incerteza de que* [Post], by Frente Parlamentar da Agropecuária - FPA, 2023e, Facebook. Library ID: 1578592689215512. (<https://www.facebook.com/ads/library/?id=1578592689215512>)

Note. Translation: “Generations, an unshakeable love for the land and a passion for food production now face the uncertainty that their property rights as citizens will be respected. We need the TMilestone Thesis bill to preserve Brazil’s agricultural legacy. Hit play and watch this story. #TogetherForAgro”.

One final discursive strategy we mapped was the use of fact-checking to propagate ideas favourable to Brazilian agribusiness. Maingueneau (2014) explains that every enunciator establishes, through their enunciation, the context from which they wish to enunciate. This unique staging of enunciation is precisely what the author calls “scenography”. Four of the adverts published by the FPA in 2023 begin their textual field with the expression “fact or fake”, commonly associated with the activity of fact-checking. The expression also appears in the accompanying videos (Figure 9).



Figure 9. Advertisements by the Frente Parlamentar da Agropecuária using fact-checking scenography to legitimise information that portrays a positive image of Brazilian agribusiness

Source. From *Fato ou Fake Sustentabilidade | Brasil desmata? Brasil queima? A agropecuária está matando nosso planeta?* [Reel], by Frente Parlamentar da Agropecuária – FPA, 2023d, Facebook. Library ID: 828184975681014. (<https://www.facebook.com/reel/864820808405303>)

Note. Translation: “Fact or Fake Sustainability | Does Brazil deforest? Does Brazil burn? Is agriculture killing our planet? Is livestock farming killing our planet? Play the video and learn more about the investigation into Brazilian sustainability”.

The use of fact-checking scenography serves to legitimise the information verbalised by the enunciator. Dynamic virtual backgrounds, the incorporation of memes in the middle of speeches and the use of humour in the construction of the content are some of the elements used in these adverts. The videos featuring the “fact or fake” branding are among the minority in our sample that adopt a vertical format aligning with the micro-video trend popular on platforms like Instagram’s “Reels” and TikTok.

6. CONCLUSION

This study employed various methodological approaches to examine the content disseminated on the Meta platforms by the FPA in Brazil. The advertisements analysed show that Brazilian agribusiness uses sustainability as a form of greenwashing and disinformation in its online communication efforts.

Among the primary findings, the automated analysis of the frequencies of terms revealed five main thematic axes: “land invasions”, “Milestone Thesis”, “tax reform”, “economy”, and “Ferrogrão”. These themes were associated with keywords that illustrate how they are framed in the advertisements. Overall, the frameworks attempt to criminalise social movements advocating for land reform and to sway public opinion in supporting the approval of the Milestone Thesis, presenting it as a matter of right to property and legal certainty.

The content analysis revealed misleading discourses or greenwashing in 75 of the 157 advertisements studied, representing approximately 48% of the total sample. Through language and visual choices in the advertisements, we identified discursive strategies to criminalise social movements advocating for land reform, alarmism tactics to hinder legislation favouring the demarcation of Indigenous lands, denialist strategies regarding the environmental impacts of agribusiness, and discursive strategies to nullify conflict in the rural areas, among others.

Our findings show that the discourses in the advertisements defend preserving the status quo of socio-economic dynamics in the rural areas, primarily aiming to counteract actors and agendas advocating for land redistribution in Brazil. This is evident through the adverts’ strong discursive opposition to the demarcation of Indigenous lands and their portrayal of social movements advocating for land equality as antagonistic figures. The promotion of alarmism also aims to instil fear of potential transformations in property relations in the rural regions, seeking to garner public support for the maintenance of current power structures. Furthermore, the effort to discursively nullify the contradictions in the rural areas promoted by the adverts, which lump all rural producers into the same interest group, fabricates the notion of a harmonious rural region where large-scale and small-scale producers purportedly pursue the same goals. This “manufactured harmony” is another discursive element to uphold the status quo.

As a potential agenda for future research, we contend that the content analysis of these advertisements should be confronted with an analysis of the advertiser’s segmentation strategies to enable a deeper understanding of the types of messages directed towards specific audience segments.

Translation: Anabela Delgado

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