

DOSSIER

TOLD, BUT NOT SHOWED:

social-environmental impacts of hydropower in Brazilian press



GISELE SOUZA NEULS

Michigan State University, East Lansing – Michigan (MI) – United States
ORCID: 0000-0003-1113-6627

KARINA NINNI RAMOS

Michigan State University, East Lansing – Michigan (MI), United States
ORCID: 0000-0002-8503-6840

RACHEL REIS MOURÃO

University of Miami, Coral Gables – Florida (FL) – United States
ORCID: 0000-0001-8229-7247

EMILIO MORAN

Michigan State University, East Lansing – Michigan (MI) – United States
ORCID: 0000-0001-5153-545X

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1 Michigan State University – United States. E-mail: gisele.neuls@gmail.com

2 Michigan State University – United States. E-mail: karinaninni@alumni.usp.br

3 University of Miami - United States. E-mail: rachelmourao@miami.edu

4 Michigan State University – United States. E-mail: moranef@msu.edu

ABSTRACT – This study analyses how Brazilian media cover the socio-environmental impacts of hydropower plants. Using critical discourse analysis, we examined 184 news articles from Brazil's main outlets. The results reveal coverage focused on economics and politics, with little explanation of environmental and social impacts. Additionally, the media reinforces colonial narratives in its portrayal of traditional communities. We conclude that this coverage limits public understanding of hydropower's effects, undermining environmental journalism's educational role.

Keywords: Hydropower. Environmental journalism. Environmental justice. Critical discourse analysis.

DITO, MAS NÃO MOSTRADO: impactos socioambientais das hidrelétricas na imprensa brasileira

RESUMO – Este estudo analisa como a mídia brasileira cobre os impactos socioambientais das hidrelétricas. Utilizando análise crítica do discurso, examinamos 184 reportagens dos principais veículos de notícias do Brasil. Os resultados mostram uma cobertura focada na economia e na política, com pouca explicação sobre os impactos ambientais e sociais. Além disso, a mídia reforça discursos coloniais ao representar comunidades tradicionais. Concluímos que a cobertura limita o entendimento público dos efeitos das hidrelétricas, comprometendo o papel educativo do jornalismo ambiental.

Palavras-chave: Hidrelétricas. Jornalismo ambiental. Justiça ambiental. Análise crítica do discurso.

DICHO, PERO NO MOSTRADO: impactos socioambientales de las hidroeléctricas en la prensa brasileña

RESUMEN – Este estudio analiza cómo los medios brasileños cubren los impactos socioambientales de las hidroeléctricas. Mediante análisis crítico del discurso, examinamos 184 reportajes de los principales medios de Brasil. Los resultados revelan una cobertura centrada en la economía y la política, con poca explicación de los impactos ambientales y sociales. Además, los medios refuerzan discursos coloniales en la representación de comunidades tradicionales. Concluimos que esta cobertura limita la comprensión pública de los efectos de las hidroeléctricas, afectando el papel educativo del periodismo ambiental.

Palabras clave: Hidroeléctrica. Periodismo ambiental. Justicia ambiental. Análisis crítico del discurso.

1 Introduction

Hydropower is often celebrated in Brazil as a symbol of progress and clean energy. The country is the second-largest hydropower producer in the world, and this source dominates its energy mix. The national narrative portrays this achievement as a sign of sustainability and sovereignty. However, while hydropower is promoted as a clean alternative to fossil fuels, its social and environmental costs are far from negligible. The construction and operation of dams have led

to the displacement of Indigenous Peoples, *ribeirinhos* (traditional communities of riverside people), and *quilombola*¹ communities (maroon communities, descendants from enslaved Africans that freed themselves and established their communities, often in remote or inaccessible areas), deforestation, biodiversity loss, and long-term socio-environmental conflicts (Castilho, 2019; Moran et al., 2018). These impacts have been documented since the 1970s, yet the dominant discourse in both policymaking and journalism continues to emphasize economic growth and energy security over social justice and environmental preservation.

This study starts from the premise that the way journalism represents hydropower shapes public understanding of development and sustainability. Following the Brazilian media's tendency to privilege political and economic perspectives over the social and environmental impacts in local communities (Mourão et al., 2022), we ask: What does it look like when the Brazilian media covers the social and environmental impacts of hydropower? The relevance of this question lies in journalism's educational and civic role as defined by Wilson Bueno (2007). Bueno points out that mainstream news media tend to reproduce problematic patterns such as reductionism, depoliticization, dependence on scientific and institutional sources, leniency towards private companies and sensationalism. These patterns persist despite the presence of an active community of environmental reporters and social movements, such as the Movement of People Affected by Dams (MAB), that seek to make local struggles visible (Costa et al., 2017; Mourão et al., 2022).

Grounded in critical discourse analysis, this article examines how Brazil's main news outlets – *Folha de S.Paulo*, *O Estado de S. Paulo*, *O Globo*, and *g1* – covered the social and environmental impacts of hydropower plants between 1997 and 2020. Analyzing journalistic narratives on hydropower allows us to interrogate the relationship between development ideology and environmental representation in Latin American media. This mixed-methods study used a dataset of 2.996 Factiva news stories, from which 184 were selected for detailed analysis after excluding opinion pieces and unrelated mentions.

Ultimately, this article aims to reveal the extent to which Brazilian journalism fulfils or fails its educational and democratic functions in environmental communication. By uncovering how hydropower is told, but not shown, in the press, we expose how

colonial narratives and modernization myths continue to structure environmental discourse in Brazil and limit the public's capacity to understand and act upon socio-environmental issues.

2 Context

Brazil is the second-largest hydropower producer in the world, a source that accounts for 63% of the country's energy mix (IEA, 2023). This energy primarily serves urban centers and industries, while the environmental and human costs are frequently underestimated and borne by communities directly impacted by the projects (Castilho, 2019; Moran et al., 2018). Although hydropower is often framed as a clean and renewable energy alternative, its expansion across Brazil, and particularly in the Amazon, has generated massive social and ecological consequences, including the displacement of small farmers, Indigenous Peoples, *ribeirinho* and *quilombola* communities, deforestation, biodiversity loss, and the degradation of river ecosystems (Kahn et al., 2014; World Commission on Dams, 2000; Mourão et al., 2022).

Brazil's large hydropower construction surged during the 1964–1985 military dictatorship, a period of suppressed public debate and censorship. Under the regime's developmentalist push, numerous projects like Tucuruí, Sobradinho, Itaparica, Itá, Machadinho, and the major Itaipu dam forcibly displaced thousands (Longui & Clemente, 2017). These early experiences of forceful displacement of local communities gave rise to local resistance movements that later converged nationally. These displacements sparked local resistance that later unified nationally. This led to the First National Meeting of Workers Affected by Dams in 1989, and the formal establishment of the Movement of People Affected by Dams (MAB) in 1991 (MAB, 2013).

International pressure on Brazil in the 1980s led to the 1981 national environmental policy (Bill 6.938), establishing a legal framework for environmental licensing of potentially impactful projects (Karpinski, 2008). Oversight is managed primarily by the federal environmental agency, Ibama (Brazilian Institute of Environment and Renewable Natural Resources), and Aneel (National Electric Energy Agency), which regulates energy concessions. The licensing process was formalized in 1986 when Conama (National Environmental Council) created technical standards for Environmental Impact Assessments (EIA) and their respective reports (Rima).

Intended in the 1980s to systematically evaluate environmental impacts, the implementation of these instruments soon faced limitations, with project developers often responsible for the studies. Consequently, the EIA/Rima often legitimized construction rather than critically assessing it, rarely incorporating local knowledge and frequently affirming feasibility prematurely (Karpinski, 2008). This is crucial as the EIA/Rima forms the basis of the three-stage licensing process: the preliminary license (feasibility/location assessment), the installation license (construction authorization post-conditions), and the operation license (commercial activity permission post-mitigation/monitoring).

Brazil's return to democracy did not slow the expansion of its hydropower sector; rather, it intensified. Approximately 80% of Amazonia's large hydroelectric plants, including four of the five largest in Brazil (Belo Monte, Santo Antônio, Jirau, and Tucuruí), were built from 1995 onward under democratic governments (Castilho, 2019). This acceleration shows that energy policies – driven by a shared, developmentalist vision centered on major infrastructure – did not significantly change after the political transition. Social movements like MAB criticized the lack of public consultation and the exclusion of negative impacts in licensing reports. Throughout the 1990s, criticism grew regarding the technocratic and fragmented nature of EIAs, highlighting the need for interdisciplinary approaches to address the complex socio-environmental aspects of hydropower development (Karpinski, 2008).

Brazil's hydropower policy shows enduring political and economic continuity, consistently prioritizing efficiency and energy security over social and environmental impacts (Costa et al., 2017). This has deeply affected the Amazon, causing loss of livelihoods, forced resettlement, and consultation rights violations for dam-affected populations. This structural continuity fuels cycles of dispossession and resistance. MAB, a central organization for affected people, successfully advocated for the 2023 National Policy on the Rights of People Affected by Dams (PNAB), which mandates corporate social responsibility. MAB is currently active in 20 of Brazil's 27 Federal Units.

Alongside other social movements, MAB has been critical in exposing the environmental injustices associated with hydropower construction. From an environmental justice perspective, these injustices stem from the unequal distribution of environmental risks and benefits (Acserald et al., 2009), in which vulnerable populations – small farmers, Indigenous People, *quilombolas* and *ribeirinhos* – bear the social and ecological costs of energy projects that primarily benefit

urban and industrial centers. Acserald and colleagues (2009) emphasize that environmental justice is not limited to the right to a healthy environment but encompasses the right to participate in decisions that affect one's territory and way of life. In the case of hydropower, this right is routinely denied through technocratic procedures that marginalize affected populations from decision-making processes, reinforcing historical patterns of exclusion and inequality.

3 Journalism and hydropower dams

Journalists have often prioritized institutional and specialist perspectives over the voices of local communities. Mourão et al. (2022), in their study of Brazilian hydropower projects, found that news coverage mainly focuses on the economy and partisan politics and tends to frame environmental issues as topics for experts and government entities, sidelining the concerns of affected populations (Mourão et al., 2022). Previous studies on hydropower in Brazil found similar results in analyses of specific cases, such as Belo Monte (Arini, 2013; Paes et al., 2018) and the dams on the Madeira River (Maldaner & Akama, 2017). Similarly, Jiang et al. (2017) examined media coverage of Brahmaputra River hydropower projects, noting that domestic and international politics dominate news coverage (Jiang et al., 2017).

Scholars have examined news coverage of environmental issues for decades. Sharon Friedman (1991) analyzed the environmental news in the US between the decades 1970 and 1990 and found that, although the number of reporters and beats grew, the quality of the reporting was still lacking density and complexity, with “too much crisis reporting, too much sensationalism, and too little interest in following the complexities and development of most environmental issues” (Friedman, 1991, p. 20). Since then, studies show that environmental coverage has declined in the Global North, with mainstream organizations closing their sections (Takahashi et al., 2018). Nevertheless, recent studies focusing specifically on climate change journalism suggest a more nuanced scenario. McAllister et al. (2021), who examined coverage in the United States, United Kingdom, New Zealand, Australia, and Canada between 2005 and 2019, found that while the overall quantity of climate change reporting has not changed significantly, the quality has improved, particularly due to the decline of so-called “balanced coverage” that

previously gave disproportionate space to climate denialist voices. Similarly, Hase et al. (2021), in an automated content analysis of climate change coverage across ten countries from both the Global North and the Global South between 2006 and 2018, found that issue attention remained relatively stable over time, with no consistent increase or decrease in most nations. Both studies also show that peaks in attention coincide with major events such as international climate conferences or extreme weather events, reaffirming that coverage remains event-driven rather than sustained throughout the year (McAllister et al., 2021; Hase et al., 2021).

Friedman (1991) hints at the social role of environmental journalism as an educator to the audiences, informing them on how to better understand the complex nexus between science, politics, and the economy. This way, citizens are equipped to decide the type of development their society is willing to afford. The educative role is evident in Brazilian literature about environmental journalism. Brazilian scholars differentiate environmental journalism and journalism about the environment, usually defining the latter by lacking the characteristics the first should have: systemic view of facts, ability to show the complexity of environmental occurrences, sources diversity, defense of biodiversity and life in its fullness and the assumed role to educate audiences to exercise citizenship and act to tackle environmental problems (Bueno, 2007; Dornelles, 2008). The educational role is shared by US scholars, who emphasize the importance of educating the public to understand environmental problems and act on them (Detjen, 2002; Pinto et al., 2018).

However, news media in Latin America have a more challenging context in which to pursue this type of reporting. The region has a political history marked by dictatorships during most of the 20th century, accompanied by economies that moved from resource nationalism to populist economic strategies and, by the turn of the century, to neopopulism. Those swift changes result in a scenery where “politics, governments and the media are either in collusion or in collision” (Takahashi et al., 2018, p. 5). The extractive economic agendas in Latin American countries call for a vigilant media. Still, the reality in the region is that journalists are expected to cover issues that contribute to the development of their nations, as viewed by their current governments, affording a limited focus on environmental issues (Rochyadi-Reetz & Teng’o, 2022; Takahashi et al., 2018).

3.1 The limiting syndromes of environmental coverage

Wilson Bueno (2007) defines environmental journalism as a journalistic specialization that shares the general principles and values of the profession, with an added commitment to the quality of life and citizenship. “Environmental journalism is, at its core, journalism and, as such, requires commitment to the public interest, democratization of knowledge and broadening of public discussions” (Bueno, 2007, p. 36, our translation). Bueno (2007) argues that environmental journalism should strive to be informative, pedagogical and political. Informative to fulfil the need of the public to be informed about the main themes related to environmental issues, taking into consideration the impact of behavior (e.g., consumption), processes (e.g., biodiversity loss) and development models on the environment and, by extension, on their life quality. Pedagogical to make explicit causes and solutions for environmental problems, and political to mobilize citizens against interests that contribute to escalating the environmental problems, such as polluting companies and the actions of governments. Bueno argues that environmental journalism goes beyond technical or scientific communication; it must be interdisciplinary, plural, and attentive to the voices and experiences of diverse actors, from scientists to traditional and Indigenous communities. In this sense, environmental journalism differs from environmental communication or green marketing, as it must remain independent from corporate and governmental interests.

Bueno (2007) identifies five main problems in the coverage of environmental issues in Brazilian news media. The first is the ‘zoom’ syndrome, or the fragmentation of environmental issues into narrow beats such as economics, science, or politics, resulting in a lack of systemic perspective. It makes the reporting reductionist, lacking a multidisciplinary perspective. The second is the ‘high wall’ syndrome, characterized by the depoliticization and confinement of issues to a strictly technical view that removes people from the debate. It asserts that only those with technical or scientific knowledge should participate in the conversation and make decisions.

The high wall syndrome is frequently accompanied by the ‘Lattes’ syndrome, named after the Brazilian national information system and integrated database that compiles researchers’ curricula. The Lattes syndrome is expressed by an overreliance

on credentialed sources while marginalizing lived and local knowledge. The fourth is the 'green lenience' syndrome, which aligns with corporate greenwashing discourses that mask harmful practices. It is leniency towards companies that advocate for the environment as a reputational strategy, without actually changing their environmental impact.

Finally, the 'beached whale' syndrome describes the sensationalist treatment of environmental tragedies as isolated spectacles rather than structural problems. For Bueno, these syndromes are symptoms of a broader issue: the dominance of hegemonic media logic that prioritizes the interests of economic and political elites, often in conflict with the interests of less privileged populations.

The role of journalism in covering environmental issues, particularly those related to hydropower, is critical in shaping public opinion and policy discourse. Building on this theoretical foundation, our study examines whether hydropower coverage in Brazil fulfils the informational, pedagogical, and political functions that Bueno attributes to environmental journalism, or whether it reproduces the syndromes he identifies.

4 Methods

This study applies critical discourse analysis (CDA) as a methodological framework to examine how language constructs meanings about hydropower and its social-environmental impacts. CDA, as outlined by van Dijk (2009), is not a single method but a critical, problem-oriented approach that investigates how discourse contributes to the production and reproduction of power relations and social inequalities. It focuses on how dominance is enacted, reproduced, and resisted through text. Within his sociocognitive approach, van Dijk emphasizes the relationships among discourse, cognition, and society, arguing that language mediates social power through shared mental models, ideologies, and knowledge structures. Building upon van Dijk, Richardson (2007) highlights that critical discourse analysis of journalism seeks to reveal how linguistic and textual choices construct particular versions of reality, legitimizing certain actors and marginalizing others. Applying CDA to journalism enables researchers to move beyond surface-level content and uncover the ideological functions of news texts.

We use critical discourse analysis (Dijk, 2009; Richardson, 2007) to identify the patterns and meanings produced about the socioeconomic and environmental impacts of hydropower in Brazil across the country's four main online news outlets: Folha de S.Paulo, O Estado de S. Paulo, O Globo, and g1. These outlets were chosen because they have historically set the national news agenda and are owned by the largest media conglomerates in Brazil, shaping public discourse on political, economic, and environmental issues. Although g1 is part of the same conglomerate as O Globo, it was included because, unlike the three print-based outlets, its digital newsroom has editorial teams distributed outside the Rio-São Paulo axis, where news media is concentrated, providing broader geographical coverage. We recognize this as a limitation, as ideally, the analysis would also include regional or local media outlets, but this was not feasible given data collection constraints within Factiva, which primarily indexes national-level publications.

Using Factiva to pull news stories with the keyword hydropower published between 1997 and 2020 (N=2.996), from which we pulled random samples of 50 stories each until saturation was reached (n=250). Saturation was determined when repetitive patterns emerged, and no new codes or categories were identified during the coding process. Stories from opinion sessions, columns, and stories about dams not located in Brazil were discarded, resulting in a final sample of n=184 news stories (table 1). Coding was carried out in three phases by two coders. The first phase established the main themes of each paragraph and found the categories: a) social impact, b) environmental impact, c) activism, d) economy of the dam, e) politics of the dam, f) externalities, and g) blackout. It allowed us to select the paragraphs, or units of analysis, for the second coding phase. During this process, licensing emerged as a transversal category. The environmental licensing process appears as a hurdle, a promise, or a demand. It intersects with economics when the paragraph notes that the license delay is causing economic uncertainty. It appears in the politics of dams, discussing the pressure and lobbying to secure license approvals. It overlaps with environmental and social impact categories, indicating that the licenses underestimate impacts or fail to consult specific populations. The emerging patterns also reveal what is missing: the texts analyzed never explained what environmental licensing is, what the process entails, or why it is important.

Since our focus is on the dams' social and environmental impacts, only the first three categories were selected for the in-depth analysis. The total number of units of analysis (UAs) is $n=241$, with 58 overlapping one or more categories: 126 related to environmental impacts, 102 to socioeconomic impacts, and 71 to activism. The second phase entailed line-by-line coding, focusing on the micro-levels of textual analysis, as Richardson (2007) described. For each UA, we proceed with lexical analysis (choice and meaning of words, naming, and reference to identities and roles), predication (terms used to qualify, criticize, undermine, or vilify), transitivity (relationship between participants and the roles they play in the process described), sentence construction (modality, use of adverbs), and presupposition (what is implicit in the text). The line-by-line coding was made in ATLAS.TI 23.2.1 for Windows.

Table 1

Dataset composition

Data collection	News stories
Dataset	2.996
Sampling	184

Table 2

Codebook

Category	UA
Economy of the dam	237
Politics of the dam	159
Environmental impact	126
Socioeconomic impact	102
Activism	71
Externalities	14
Blackout	33

The concept treemap shows the overall context of the coverage of dams in Brazil: the news starts with the government's execution of energy policies and dwells on the environmental licensing process and its intricacies, which often involves legal actions and conflict with Indigenous territories, keep tabs on the construction phase, permeated by conflicts that arise with masses of workers that move to the sites where the construction is happening. Moreover, it rarely returns to see what happens after the plant begins operating.

5 Media representations of hydropower: patterns and limitations

Of the 184 stories analyzed, only eight had all paragraphs coded. This is the first indication that daily coverage lacks an in-depth understanding of the importance and extent of the social and environmental problems associated with dams in Brazil. They are more commonly mentioned in passing in stories about the economy or the politics of dams. Four main trends emerged from the discourse analysis: 1) superficial coverage of social and environmental impacts, 2) procedural coverage of legal battles, 3) conflicts with workers, and 4) colonial portrayal of traditional communities.

5.1 Superficial coverage

Most news stories analyzed in this sample included up to two paragraphs discussing a hydropower plant's social or environmental impacts. According to Wilson Bueno's categories, the coverage of those impacts leans heavily toward the zoom syndrome, which focuses on the infrastructure needed for development (economy) and scandals (politics). The g1 news story "*Bolsonaro says that if it depends on the government, the Estrada do Colono may be reopened*" (*Bolsonaro diz que se depender do governo Estrada do Colono pode ser reaberta*), published on May 23, 2019, is a good example. The story is about a controversial road that crosses Iguazu National Park, in Paraná state. The road has been closed since 2001 by order of the country's Superior Court of Justice due to its impact on the biodiversity inside the protected area, with frequent deaths of animals hit by cars. There is constant pressure from farmers to reopen it, and the news story

is about then-president Jair Bolsonaro promising to reopen the road despite the court ruling, lack of environmental licensing, and protests from environmental activists. Up to this point, the news has nothing to do with energy.

The connection is another piece of infrastructure in the same basin: a hydropower plant that has just started operating. The story details the construction costs, the amount of energy to be produced, and the companies that own the plant. The text hints that the environmental damage was significant enough to prompt the United Nations Educational, Scientific and Cultural Organization (Unesco) to report on it and to threaten to revoke the World Heritage title awarded to Iguazu National Park. Nevertheless, the hint is lost, as the text qualifies the damages as a supposition rather than a fact. There is no information about what type of damage was reported by Unesco.

Due to allegedly irreversible damage to the Iguazu National Park, which neighbours the power plant and is home to the Iguazu Falls, Unesco even published a report threatening to annul the title of natural heritage of humanity granted to the park in 1986. (g1, 2019a).

E, por conta de supostos danos irreversíveis ao Parque Nacional do Iguazu, vizinho da usina e que abriga as Cataratas do Iguazu, a Unesco chegou a publicar um relatório ameaçando anular o título de patrimônio natural da humanidade concedido à unidade em 1986. (g1, 2019a).

It reports social and environmental impacts as hindrances to the construction process without any details about what the environmental impacts were that needed to be mitigated or compensated through the licensing process or the grievances from the protesting farmers:

The concession for the plant was tendered by the federal government in 2008. However, construction began only in July 2013, after a series of obstacles, including environmental licenses and protests by farmers whose land was flooded to form the reservoir. (g1, 2019a).

A concessão da usina foi licitada pelo governo federal em 2008, mas as obras só tiveram início em julho de 2013, depois de uma série de entraves envolvendo, entre outros, licenças ambientais e protestos de agricultores que tiveram as terras alagadas para a formação do reservatório. (g1, 2019a).

The frequent opposition between environmental impacts and the need for development is evident in the interview published by O Globo on April 7, 2008, with two executives of the Barra

Grande hydropower plant. The plant, built in Santa Catarina state, started operating in 2005 after a lengthy legal battle to protect biodiversity and adequately compensate displaced small farmers. The licensing process was questioned for its lack of transparency and for underestimating its impact on biodiversity, leading to the deforestation of 6.000 hectares of Atlantic Forest – the most devastated Brazilian biome. The area was rich in araucaria trees (*Araucaria angustifolia*), which are categorized as critically endangered (CNCFlora, 2012). The interview with the executives happened three years after the forest was cut and the reservoir had been filled. The opening paragraph reinforces the discourse that deforestation was an unforeseen problem.

Everything was ready to open the floodgates of the Barra Grande in 2003 when it was discovered that there was an araucaria forest on the way. At the time, it was said that six thousand hectares of forest would drown when the floodgates were opened. Ten years have passed since Ibama granted the first license, apparently without noticing the trees. (O Globo, 2008).

Estava tudo pronto para abrir as comportas da Usina de Barra Grande, em 2003, quando se descobriu que no caminho havia uma floresta de araucária. À época se dizia que seis mil hectares de mata seriam afogados quando as comportas fossem abertas. Dez anos se passaram desde que o Ibama deu a primeira licença, aparentemente sem notar as árvores. (O Globo, 2008)

Conflicts with displaced people are presented as a bump in the road successfully mitigated by the company's goodwill, leaning towards a green lenience discourse (Bueno, 2007). It fails to explain that the cost of the agreements was part of the licensing process since it is the company's responsibility to reimburse the displaced families.

Since then, numerous social agreements have been made, the Movement of People Affected by Dams (MAB) has been heard, the Baesa consortium has spent around R\$270 million on social agreements and even won an environmental award from Santa Catarina State. At the beginning of 2008, Ibama renewed its operating license. (O Globo, 2008).

Desde então, inúmeros acordos sociais foram feitos, o Movimento dos Atingidos por Barragens (MAB) foi ouvido, o consórcio Baesa gastou cerca de R\$270 milhões em acordos sociais e até ganhou um prêmio ambiental de Santa Catarina. No início de 2008, o Ibama renovou a licença de operação. (O Globo, 2008).

The dominant discourse about social and environmental problems is superficial. It is limited to acknowledging that an impact exists without explaining what it is, the dynamics between the power plant and the issues, or the severity of the damage. Moreover, the unspecific impacts are frequently portrayed as hindrances to development, raising construction costs and overburdening companies.

5.2 Legal battles

The legal battles account for 18% of the units of analysis (coded 43 times), and all involve problems during the licensing process or non-compliance with licensing requirements. The high frequency with which a Justice branch appears in this coverage is one of the primary reasons Brazilian news media cover social and environmental issues caused by dams: when they reach the courts. Looking into the verbs (Richardson, 2007) present in the discourse, we see that Justice file (actions), inform (the parts), grant (injunctions), suspend (decisions), and require (actions). The wording is procedural and uses legal jargon, as highlighted in the following example:

Yesterday, the Public Ministry of Labour (MPT) of Rondônia filed a public civil action requesting an embargo on construction at the Jirau Hydroelectric Plant. (O Globo, 2011a).

O Ministério Público do Trabalho (MPT) de Rondônia impetrou ontem uma ação civil pública na qual pede o embargo das obras da Usina Hidrelétrica de Jirau. (O Globo, 2011a).

The news stories have little to no detail about the violations and misconduct perpetrated in those actions. They state the reasons for the legal battles as a lack of compliance with license conditions, failure to conduct required public hearings, and inadequate working conditions on construction sites. Nevertheless, they rarely go further, offering no details about which required conditions were disregarded or what impacts they were supposed to compensate for. In the first example below, we do not know which condition was breached; in the second, we do not know why the rivers require intervention to guarantee navigability, nor what type of support Indigenous people will need due to the dam construction. Again, the news stories hint at the problems but do not explain them to the audience.

Example 1: MPF states that, in addition to the conditions being breached and insufficient, they are poorly monitored by Ibama (the environmental agency). (O Estado de São Paulo, 2012a)

Para o MPF, além de as condicionantes estarem sendo descumpridas e serem insuficientes, são mal fiscalizadas pelo Ibama. (O Estado de São Paulo, 2012a)

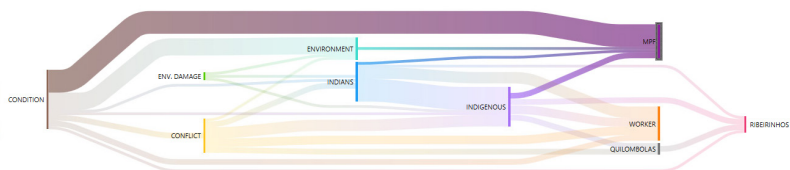
Example 2: According to the MPF, 29 conditions had not been fulfilled until then, four had been partially fulfilled, and there was no information about the remaining 33. Among the preconditions are measures such as the recovery of degraded areas, preparation of urban infrastructure, initiatives to guarantee navigability in the region's rivers, land regularization of affected areas, and support programs for Indigenous people. (O Estado de São Paulo, 2011)

De acordo com o MPF, até então, 29 condicionantes não tinham sido cumpridas, 4 foram realizadas parcialmente e sobre as demais 33 não havia nenhuma informação. Entre as precondições, estão medidas como a recuperação de áreas degradadas, preparo de infraestrutura urbana, iniciativas para garantir a navegabilidade nos rios da região, regularização fundiária de áreas afetadas e programas de apoio a indígenas. (O Estado de São Paulo, 2011)

This type of coverage is what Wilson Bueno categorized as the high wall syndrome, in which social and environmental issues are confined to a strictly technical view that leaves little space for the average citizen to understand the problems, participate in the debate, and make decisions (Bueno, 2007). The axial coding diagrams with the strongest co-occurrences for the category MPF (figure 3) show that, despite the legal battles being all related to social-environmental problems caused by hydropower plants, the discourse around the legal actions is technical and does not give the readers enough information for them to understand the complexity of those problems. They focus on the actors of the conflict, not the causes.

Figure 3

Axial coding shows the strongest co-occurrences for MPF (Federal Prosecution Office)



5.3 Workers strike

Over the last 20 years, most construction has occurred in small cities in the Amazon, resulting in a massive influx of workers from other regions. Construction workers complained about the housing infrastructure, payment rates, and working conditions. Strikes and protests on construction sites have led to violence on occasion. The actors are indexed according to their roles and actions in the conflict. Prosecutors and government officials are indexed by their full titles: the minister of the Supreme Court grants and decides; the president of the environmental agency signs, informs, asks, and meets; the federal prosecutor asks, informs, acknowledges, and meets. The companies themselves are frequent actors, not their representatives, directors, or spokespersons: the company, not a person, answers, negotiates, informs, sends memos to the government, closes deals, and signs agreements. They are voices with authority and legitimacy.

Social movements and worker unions are rarely quoted. When they appear, their discursive powers are limited to saying things as movement coordinators and contradicting the companies as union presidents. Finally, the employees of the companies are indexed according to their ranks. Those in high positions or with a college education are named by their professions or hierarchical positions: directors or engineers. All the others are usually referred to as employees when they take a positive action or are victims of violence, and as workers when they participate in protests and riots, as well as when mentioned by union leaders.

According to the company, around 30 of its employees were prevented from leaving the building during the action, and the gate of the building, listed as a historical heritage site, was broken into. The Military Police said there were no depredations. (Folha de S.Paulo, 2008).

Segundo a empresa, cerca de 30 funcionários foram impedidos de deixar o prédio durante a ação, e o portão do edifício, tombado como patrimônio histórico, foi arrombado. A Polícia Militar afirmou que não houve depredações. (Folha de S.Paulo, 2008).

The Jirau construction site housed around 22 thousand workers; 7,229 are at home, waiting to be called up or fired, 5,729 from Camargo Corrêa and 1,500 from an outsourced company. They were sent back home after the riots that destroyed part of the accommodation. (O Globo, 2011b).

As obras de Jirau abrigavam cerca de 22 mil trabalhadores. Estão em casa, à espera da convocação ou da demissão, 7.229 operários, sendo 5.729 da Camargo Corrêa e 1.500 de uma terceirizada. Eles foram mandados de volta para casa depois das rebeliões que destruíram parte dos alojamentos. (O Globo, 2011b).

Union leaders, on the other hand, say that the dissatisfaction of workers, “suffocated by pressure”, would be the trigger for problems in PAC works throughout Brazil. (O Globo, 2011a).

Sindicalistas, por outro lado, dizem que a insatisfação dos trabalhadores, “sufocados pela pressão”, seria o estopim dos problemas nas obras do PAC ao longo do Brasil. Segundo Vagner Freitas, secretário de organização da CUT, as obras do PAC, em geral, não oferecem condições ideais de trabalho. (O Globo, 2011a).

Besides indexation by authority and socioeconomic class, conflicts between companies and workers make the news when they become violent. They are generally portrayed as hindrances to construction and are attributed to political power struggles between different factions of workers' unions and leftist parties. The coverage is procedural, with the news story quoting all sides; however, the grievances are merely summarized. Neither the companies nor the workers' quotes are contested by fact-checking.

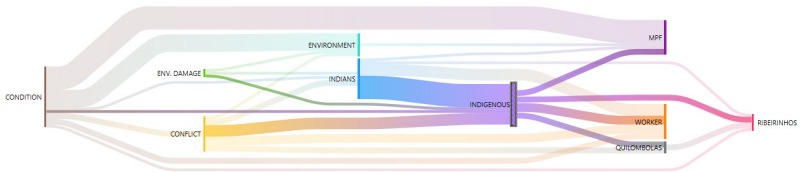
5.4 Conflict with traditional communities

Hydropower plants in Brazil impact three types of traditional communities, such as Indigenous People, *ribeirinhos* and *quilombolas*. Although those communities are heavily impacted by dams, especially in the Amazon (Mayer et al., 2021), the coverage of those impacts is limited. In those news stories, *ribeirinhos* and *quilombolas* communities are mostly invisible, bundled with Indigenous People (figure 4) as a passing mention, with texts stating that, during the licensing process, people from those communities need to be consulted if the construction affects their territories.

In the sample analyzed, only nine paragraphs were related to *quilombolas*. They are part of three news stories, with only one leader quoted about the issue reported on one of them. In six paragraphs, not a single *ribeirinho* was interviewed for the four stories that mention them. The absence of voices from communities affected by the coverage of such large-scale projects is alarming, as observed by Costa et al. (2017), since dams directly affect them. Of course, they have a voice, but, as noticed by Aledo Tur et al. (2018), they suffer from a “discursive isolation”, as their arguments are also absent from the views of other actors involved in such projects, like energy companies, the public sector, the government and even some NGO's.

Figure 4

Axial coding showing co-occurrence of the categories ribeirinhos, quilombolas, Indians and Indigenous people



Indigenous territories have been continuously impacted by dams, especially in the Amazon. The news stories analyzed portray them as opposing the dams, involved in protests and conflicts, or as beneficiaries of the license conditions. Beyond the superficiality previously detected in the coverage of social and environmental problems of the dams, the discourse about Indigenous People follows the pattern of Western media representations of Indigenous affairs: they are mostly ignored, and when reported, the coverage is culturally inappropriate, sensationalist, and short-lived (Anderson & Robertson, 2011; Hanusch, 2013; McCue, 2023). The coverage of Indigenous affairs related to hydropower is similar to what Silva and Raposo found while analyzing the coverage of conflicts with farmers and landowners: in the mainstream news media, Indigenous People are often depicted as invaders or manipulated by non-governmental organizations, while rural producers are presented as victims of governmental neglect (Silva & Raposo, 2021).

One aspect that comes to attention in the sample analyzed is the apparent use of “índios” (Indians) and “*indígenas*” (Indigenous) as synonyms. We coded 17 UAs as Indigenous, 14 UAs as Indians, and 5 UAs using both. However, there seems to be a difference in how both words are used. They are Indians when fighting for their legal rights, occupying construction sites or when government officials and companies refer to them. They are Indigenous when the news story refers to a legal term or a proper name, such as Indigenous lands, governmental institutions, or licensing requirements.

The Indians demanded that Norte Energia build a new well, in addition to improving housing conditions, after a first well was blocked in July, months after it was implemented, during the handling of the water pump. (O Globo, 2016).

Os índios exigiram da Norte Energia a construção de um novo poço, além da melhoria da condição de habitação, após um primeiro poço ter sido obstruído em julho, meses depois de ter sido implantado, durante manuseio da bomba de captação. (O Globo, 2016).

Norte Energia says it will continue to develop actions such as schools and Primary Care Indigenous Health Centers. (O Globo, 2016).

A Norte Energia diz que continuará a desenvolver ações como escolas e Unidades Básicas de Saúde Indígena. (O Globo, 2016).

Besides reinforcing prejudicial colonial views of Indigenous People as needy and incapable of autonomy (McCue, 2018), it shows a disconnection with the Brazilian Indigenous movement that uses the word “indígena” as a political stance against the colonial denomination “índio”. Moreover, the news stories usually do not say the ethnicity of the People portrayed. Even though most units of analysis in the analyzed sample that mention ethnicity use their original names, the colonial names are still in use (e.g., Juruna instead of Yudjá and Arara instead of Ukaragma). The colonial discourse is also present in the use of “tribo” (tribe) instead of “Povo” (People), the first considered derogatory by Indigenous movements.

6 Discussion

The analysis reveals that Brazilian media coverage of hydropower’s socio-environmental impacts is predominantly superficial, event-driven, and shaped by economic and political priorities. Environmental and social consequences are often mentioned briefly, lacking context on the grievances and long-term effects. The voices of impacted communities are largely absent from daily news coverage. The critical discourse analysis of Brazilian news coverage of the social and environmental impacts of hydropower plants leans toward development journalism, where “journalists are expected to cover issues in a way that contributes to the development of their nations” (Rochyadi-Reetz & Teng’o, 2022, p. 221). The connection between environmental impact and the people affected is generalized and out of context; the social movements’ protests are relevant only to the extent that they cause construction delays and result in violence, with little explanation of the grievances. It shows what happens when non-environmental reporters cover stories with massive social and environmental issues: they focus on their beats (economy, politics),

stick to the technical terms, and prioritize the voices of authority and economic power (Mourão et al., 2022; McBride, 2011).

Economic and political pressures seem to play a crucial role in shaping environmental reporting, often influencing which stories are covered and how they are framed. In Brazil, the dominance of hydropower as a key energy source aligns with government and corporate interests, leading to a media landscape that prioritizes economic growth and infrastructure development over socio-environmental concerns. Journalists may face editorial constraints, corporate influence, or political pressures (Shoemaker & Reese, 1996) that discourage critical coverage of hydropower's negative impacts. This results in reporting that either minimizes environmental harm or presents it as a necessary trade-off for progress, reinforcing dominant narratives that marginalize affected communities and environmental advocates.

The most surprising finding in this study is the representation of the impacts communities suffer through art. Two news stories in this sample feature photography books and expositions about impacted communities and places long after the dam construction. The news stories focus on the art, not the aftermath of an impactful infrastructure construction. Nevertheless, those were the only news articles that explored long-term impacts. It seems to reinforce the findings of previous studies, not only in Brazil but across Latin America as a whole, showing that legacy media in the region prioritize economic and social development, as well as event-driven coverage (Takahashi et al., 2018).

Our findings expose the fragility of contemporary journalism in confronting the greatest threat to maintaining a safe operating space for humanity: the environmental crisis (Steffen et al., 2015). The planetary boundaries model identifies climate and biodiversity as core boundaries for keeping the planet's best environmental conditions for humanity to thrive – and both are the main ecological impacts of hydropower plants. The Brazilian coverage of hydropower fails to recognize environmental inequality (Pellow, 2000), with traditional communities bearing the brunt of the negative impacts while business and city dwellers reap the greatest benefits. To overcome the disconnection between development, environmental impacts and social impacts, “It is necessary to ground Journalism once again and position it within space and the environment, bringing it as an indispensable element for understanding and transforming the social, economic, cultural, and historical reality” (Collato & Ijuim, 2022, p. 7).

Without losing sight of the fact that journalism is a cultural

practice embedded in “complex human, organizational, social, and technological arrangements” (Carlson et al., 2018, p. 10), scholars and academic professors can contribute to making journalists better prepared to cover complex social and environmental implications of society’s development choices. In the US, for example, despite students’ growing interest in environmental reporting, the beat is not adequately covered in college-level classes (Schmidt, 2017). We must bridge the disconnect between the curriculum and what students want to learn, and help them practice a reporting style that covers not only what is happening now in our communities, but also the historical context (Motta, 2020). In other words, journalism teaching must encourage students to report critically on the economic, political, and social implications of development projects, going beyond surface-level coverage.

NOTES

- 1 We chose not to translate Brazilian terms such as “*quilombola*” and “*ribeirinhos*” because translating them would not do justice to the cultural and historical specificity of these communities in Brazil. These terms carry deep-rooted meanings that reflect their unique social, historical, and political contexts.

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GISELE SOUZA NEULS. Environmental journalism and Indigenous media scholar. Collaboration on this article: conceptualization, methodology, formal analysis, writing – original draft, writing – review & editing. E-mail: gisele.neuls@gmail.com

KARINA NINNI RAMOS. Postdoctoral researcher at the Center for Global Change and Earth Observations at Michigan State University (MSU). Collaboration on this article: formal analysis, writing – original draft, writing – review & editing. E-mail: karinaninni@alumni.usp.br

RACHEL REIS MOURÃO. Associate professor and graduate director in the Department of Journalism and Media Management at the University of Miami. Collaboration on this article: data curation, formal analysis, writing – original draft, writing – review & editing. E-mail: rachelmourao@miami.edu

EMILIO MORAN. Distinguished Professor at the Center for Global Change and Earth Observations at Michigan State University (MSU). Collaboration on this article: funding acquisition, formal analysis, writing – review & editing, project administration. E-mail: moranef@msu.edu

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