
The relocation of legal reserves as a way of subverting the forest code in western Bahia

La reubicación de reservas legales como forma de subvertir el código forestal en el oeste de Bahía

A realocação de reservas legais como forma de subversão do código florestal no Oeste baiano

Arthur Bernard de Souza Moraes¹ <https://orcid.org/0009-0009-1532-3797>

Ève Anne Bühler² <https://orcid.org/0000-0002-5438-2759>

Ludivine Eloy³ <https://orcid.org/0000-0002-6899-1993>

¹ Universidade Federal do Rio de Janeiro, Rio de Janeiro/RJ, Brasil, bernardsmoraes@gmail.com

² Universidade Federal do Rio de Janeiro, Rio de Janeiro/RJ, Brasil, eve.buhler@igeo.ufrj.br

³ UMR ARTDev, Centre National de la Recherche Scientifique, Montpellier, França, ludivine.elay@univ-montp3.fr

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Abstract

Western Bahia stands out as one of the main agricultural frontiers led by agribusiness in Brazil. This paper analyzes the controversial use of the Legal Reserve (LR) compensation mechanism in western Bahia, based on an Inema-BA ordinance that allowed the expanded Reallocation of Legal Reserves (RRL). The research investigated RRL processes made available by Bahia's environmental SEI (National Institute of Environmental Research and Development), aiming to understand how this mechanism has been used and to what extent it has altered the spatial logic of conservation on properties. It was observed that the regulation favors sectoral interests by allowing reallocations with flimsy and sometimes illegal justifications, contributing to the devaluation of the LR's environmental function.

Keywords: Agricultural frontier; legal reserve; land grabbing; Bahia; Forest Code.

Resumen

El oeste de Bahía se destaca como una de las principales fronteras agrícolas lideradas por la agroindustria en Brasil. Este artículo analiza el controvertido uso del mecanismo de compensación de la Reserva Legal (RL) en el oeste de Bahía, basado en una ordenanza de Inema-BA que permitió la ampliación de la Reasignación de Reservas Legales (RRL). La investigación investigó los procesos de RRL puestos a disposición por el SEI ambiental de Bahía (Instituto Nacional de Investigación y Desarrollo Ambiental), con el objetivo de comprender cómo se ha utilizado este mecanismo y en qué medida ha alterado la lógica espacial de la conservación de las propiedades. Se observó que la regulación favorece los intereses sectoriales al permitir reasignaciones con justificaciones endeble y, en ocasiones, ilegales, lo que contribuye a la devaluación de la función ambiental de la RL.

Palabras clave: Frontera agrícola; reserva legal; acaparamiento de tierras; Bahía; Código Forestal.

Resumo

O Oeste baiano destaca-se como uma das principais fronteiras agrícolas lideradas pelo agronegócio no Brasil. Este trabalho analisa o uso controverso do mecanismo de compensação de Reserva Legal (RL) no oeste baiano, a partir de uma portaria do Inema-BA, que permitiu a Realocação de Reservas Legais (RRL) de forma ampliada. A pesquisa investigou processos de RRL disponibilizados pelo SEI ambiental da Bahia, com o objetivo de compreender como esse mecanismo tem sido utilizado e em que medida ele tem alterado a lógica espacial da conservação nas propriedades. Observou-se que a normativa favorece interesses setoriais ao permitir realocações com justificativas frágeis e por parte ilegais, contribuindo para a descaracterização da função ambiental da RL.

Palavras-chave: Fronteira agrícola; reserva legal; grilagem verde; Bahia; Código Florestal.

Introduction

The New Forest Code, published in 2012, was negotiated amid a tense political climate between agribusiness representatives and other political actors (Stickler et al., 2013). Legal Reserves represent one of several points of tension

debated throughout the reformulation of the federal law, which aims to guarantee the conservation of native vegetation on rural properties. Political actors from agribusiness challenge the obligations regarding Legal Reserves and, during the drafting of the new law, exerted significant pressure to make the conservation laws more lenient (Paulino, 2012).

In this context, the New Forest Code established new percentages required for allocating property areas to Legal Reserves: 80% for forest areas in the Legal Amazon, 35% for cerrado areas in the Legal Amazon, 20% for general grassland areas in the Legal Amazon, and for other biomes. These percentages contain some reductions compared to previous legislation (the 1965 Forest Code and subsequent revisions). The law also provides that landowners who removed more vegetation than authorized must restore natural vegetation or, if they deforested before 2008, may use environmental compensation to protect an ecologically equivalent plot (in the same biome) but located elsewhere. Under no circumstances could a farmer use environmental compensation to induce or legalize deforestation after 2008.

Western Bahia, the spatial framework of this study, is a mesoregion of the Cerrado biome, where, according to the 2012 law, rural properties must allocate a minimum of 20% of their area to Legal Reserves, thus ensuring the preservation of native ecosystems. This mesoregion is part of Matopiba, a geographic boundary that refers to the border between the states of Maranhão, Tocantins, Piauí, and Bahia. In the 2000s, it was even referred to as the "last agricultural frontier" due to the concentration of the largest and most recent investments in the agricultural sector in the first two decades of the century, establishing itself as one of Brazil's main agricultural production hubs (Silva et al., 2023).

In January 2021, the State of Bahia, through the Institute of Environment and Water Resources (INEMA), published Ordinance No. 22,078, which misinterpreted the Forest Code regarding the possibility of moving Legal Reserves. It created the possibility of Legal Reserve Relocation (RRL), even outside the property itself, thus

creating confusion regarding the environmental compensation mechanism. The Ordinance was the subject of controversy and was even suspended at the request of the Bahia Public Prosecutor's Office in November 2022.

This paper therefore aims to understand the concrete effects of the Ordinance and to what extent its publication may be associated with the expansion of the agricultural frontier in western Bahia. To this end, we will conduct a bibliographical survey on the relationship between the State and agribusiness, and contextualize the Ordinance within the existing environmental governance framework in the state. The hypothesis is that the Ordinance's publication was responsible for a movement of Legal Reserves toward the frontline of the agricultural frontier, potentially triggering a wave of land grabbing in areas less coveted by agriculture in peripheral areas, in order to expand cultivation in the displaced LRs. This movement could characterize green grabbing, which is understood as the illegal appropriation of public lands associated with the creation of mechanisms intended to be environmentally sustainable (Sauer; Borras, 2016).

Methodology

To investigate the hypothesis, Micheletti (2024) conducted a systematic collection of data related to RRLs, recorded in the Bahia Environmental and Water Resources Information System (SEIA-BA) between 2016 and 2022. We extracted 163 RRL processes approved by the environmental agency, from which we performed statistical and geoprocessing treatments. It is noteworthy that 57% of them occurred after the publication of the Ordinance, indicating a boom in requests following its publication. By mapping the relocated RLs (their place of origin and destination), we sought to understand the interests that responded to the requests approved by the environmental agency, identifying spatial patterns. From these, we also identified the social distribution of the main actors who used the system (Micheletti,

2024), in order to verify who are the protagonists of the effective mobilization of this system. Beyond the "social concentration" of the relocation phenomenon, another variable observed is its spatial logic, measured by the distance between the original location and the new location of the RL, and by whether or not it is "externalized" from the original property. In other words, we sought to verify the hypothesis of a disguised Legal Reserve offset, using the relocation mechanism to potentially position the RL outside the property.

Interests in subverting environmental policy and its effects

Brannstrom (2005), addressing environmental governance in western Bahia, links institutional decentralization in the state with the increased deliberative political power of agribusiness sector organizations, such as the Association of Farmers and Irrigators of Bahia (AIBA). The author argues that, in the early 2000s, the municipalization of political decisions and the restructuring of state environmental agencies created an institutional vacuum that favored AIBA's deliberative political action. Thus, the organization "captured" environmental policy, guiding the state's decisions and measures based on its private interests, with significant and comprehensive decisions being made by economic actors.

The restructuring of state environmental agencies, which became part of INEMA, initially provoked dissatisfaction within AIBA, and farmers complained of excessive environmental requirements, alleging inefficiency in the environmental licensing process. In response, AIBA established its own environmental technical team, with functions that go beyond that of a technical advisor, formulating standards and even developing environmental licensing procedures (Brannstrom, 2005). In this scenario, the State finds itself isolated, as by collaborating with AIBA, it partially outsources its functions and becomes complicit with private interests or accepts strong external influences within its ranks, which can destabilize the agency due to the political clout it has acquired.

Addressing this relationship between the State and private actors in general to investigate the expansion of soybeans in Roraima, Eloy, Senra, and Silva (2023) point out that the result of this dilemma has been the increasing relaxation of legal norms and a State stance toward facilitating the obtaining of environmental licenses and environmental regularization, often "legalizing the illegal."

Among the environmental obligations facing pressure for relaxation are Legal Reserves. In 2018, the Brazilian Agricultural Research Corporation (Embrapa) published a study entitled: "Opportunity Cost and Potential for Job and Tax Generation in Legal Reserve Areas in Western Bahia." The article aims to quantify the number of jobs and tax revenues that could be generated in Legal Reserve areas in western Bahia. An equation is constructed to calculate the Opportunity Cost (OC), which is the gross value of production (GVP) divided by the harvested area in hectares (gross unit production value) multiplied by the LR area in hectares (ha RL). The publication states that 88,829 jobs and R\$125 million could be generated if Legal Reserves could be used for agricultural production (Embrapa, 2018). The results of this study were endorsed by AIBA, which published them on its official website. The organization's endorsement of this study demonstrates that economic actors, in their discourse, disregard the role of Legal Reserves, often claiming that by complying with the law, they are "giving up" on increasing their profits. This publication's statement, therefore, is in line with Brannstrom's (2005) observation regarding the practice of agribusiness actors when they publish and commission studies whose results favor their strategy of combating environmental conservation measures. Such publications lend a "scientific" character to their discourse of disregard for environmental conservation regulations.

Brief legal context regarding the Reallocation of Legal Reserves (RRL)

The 1981 National Environmental Policy and the 1988 Federal Constitution established the principles of political and administrative decentralization, giving greater prominence to the states' role in environmental management. When applying federal legislation at the state level, specific laws and regulations typically interpret federal laws and transpose them to the state. LP 140 of 2011 regulates the responsibilities of each administrative level in environmental management and establishes the application of the principle of subsidiarity between the Federal State, federative states, and municipalities. With this in mind, the state of Bahia has produced a series of regulatory texts aimed at ensuring the compliance of the state registry, the CEFIR, with the national SICAR system. In addition to state laws and decrees, the state has also developed more practical texts aimed at assisting state officials in interpreting the Forest Code and developing its application procedures. This is the case with Ordinance No. 22,078, which offers a controversial interpretation of federal legislation, as it significantly expands the possibilities for transferring Legal Reserves to different rural properties.

According to the Forest Code, there is only one way to establish a Legal Reserve outside of a property: compensation, provided for in Article 66. According to the Code, an owner or possessor who, on July 22, 2008, had a Legal Reserve area smaller than that required by Article 12, could regularize their position through artificial restoration, natural regeneration of native vegetation, or compensation, allocating an equivalent area to another property owned by the same owner, in the same state and biome (BRASIL, 2012).

With State Law No. 10,431/2006, Bahia instituted a pioneering environmental policy among states with an active agricultural frontier (Maia, 2024; Bühler, 2024). The regulation created the State Forest Registry of Rural Properties (CEFIR), later integrated into the CAR. Among its guidelines, it provides for the relocation of

Legal Reserves, limited to the property itself and subject to authorization from INEMA.

According to LC 140 of 2011, state environmental legislation must comply with federal legislation and occasionally adopt more protective measures, but under no circumstances, more flexible measures. Therefore, by expanding the possibilities for relocating Legal Reserves, INEMA Ordinance No. 22,078 exceeds its authority, as it allows for the relocation of Legal Reserves to another property owned by the same owner, without compensation. To circumvent the provisions of the Forest Code, it creates the concept of a "single enterprise," which defines that multiple rural properties can be considered a single enterprise as long as they belong to the same individual or legal entity and carry out activities within the same production chain, whether spatially contiguous or not. From this point on, a single project is considered equivalent to a single property, thus allowing the transfer of Legal Reserves to different units within the project. Furthermore, the Ordinance also allows properties in good environmental standing to transfer Legal Reserves to others based on a subjective criterion of "environmental quality." Such definitions go beyond the provisions of the Constitution and go beyond the simple interpretation of a law, creating a regulatory loophole that makes the spatial rearrangement of Legal Reserves in the state more flexible. It is also worth noting that an Ordinance is an administrative act that does not have a legislative character; therefore, it does not have the authority to create a new modality for reallocating Legal Reserves, but rather to instruct on the application of existing legislation. In November 2022, when recommending the suspension of Ordinance No. 22,078, the Bahia Public Prosecutor's Office emphasized that neither the RL compensation mechanism of the 2012 Forest Code nor the RRL possibility provided for in State Law No. 10,431/2006 can be used to permit the conversion of new areas to alternative land use. The legislation, therefore, does not authorize "displacement for deforestation" in the case of Legal Reserves.

The effects of the Ordinance

Analysis of the database collected from INEMA identified the 5 landowners who submitted the most requests for Legal Reserve reallocations among the 163 requests collected.

Table 1 - Number of Legal Reserve Reallocation Requests from Farmers with the Most Requests

Single-family home	Number of processes
Owner 1	22
Owner 2	14
Owner 3	8
Owner 4	7
Owner 5	7

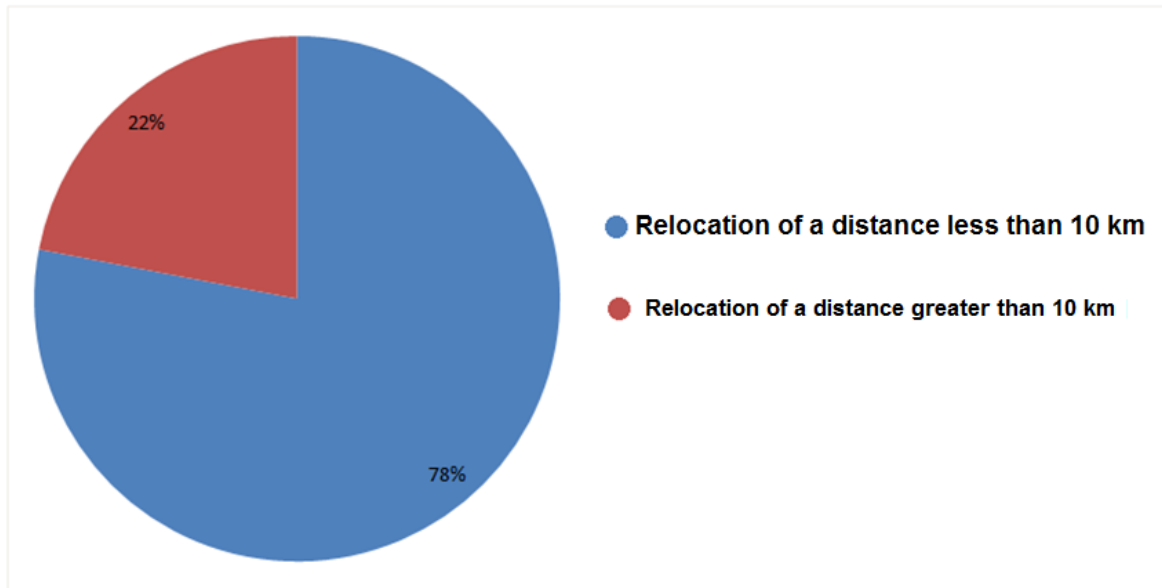
Source: Adapted from Micheletti (2024)

Most are well-known players in western Bahia's agribusiness. Owner 1 owns the largest irrigation systems in the region. His ARRL processes involve RLs located in Barreiras and Luis Eduardo Magalhães, with requests for relocation to Mansidão, a municipality further east.

Owner 2 is the president of a major producer association in the state. His processes are concentrated in Correntina, with the relocation of RLs to the Fundo e Fecho de Pasto Capão Modesto Community, recognized by the State of Bahia. This traditional community faces RL records in its territory, with violent conflicts and protests against the appropriation of grazing lands. Thus, a preliminary analysis of the system's main users reinforces the research hypothesis.

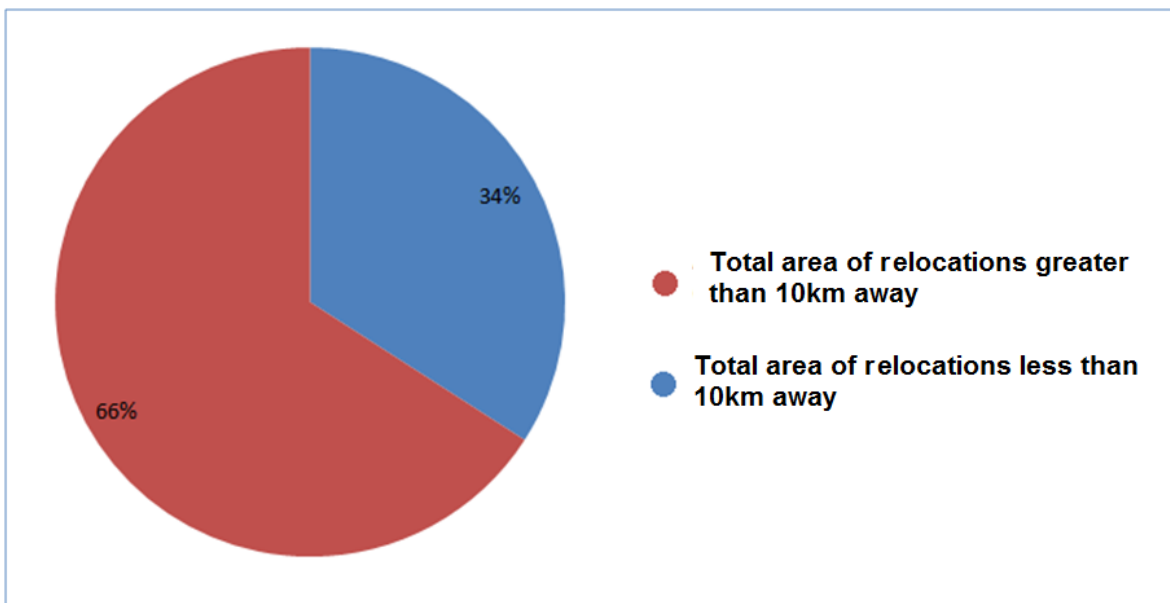
Using the shapefiles of the RRL processes, we identified the RLs before and after relocation, the associated properties, and their trajectories. Using this data, we created maps and descriptive statistics.

Graph 1 - Percentage of legal reserve relocations by distance in Western Bahia



Source: Prepared by Moraes (2025)

Graph 2 - Percentage of the total area of legal reserve reallocations by distance in Western Bahia

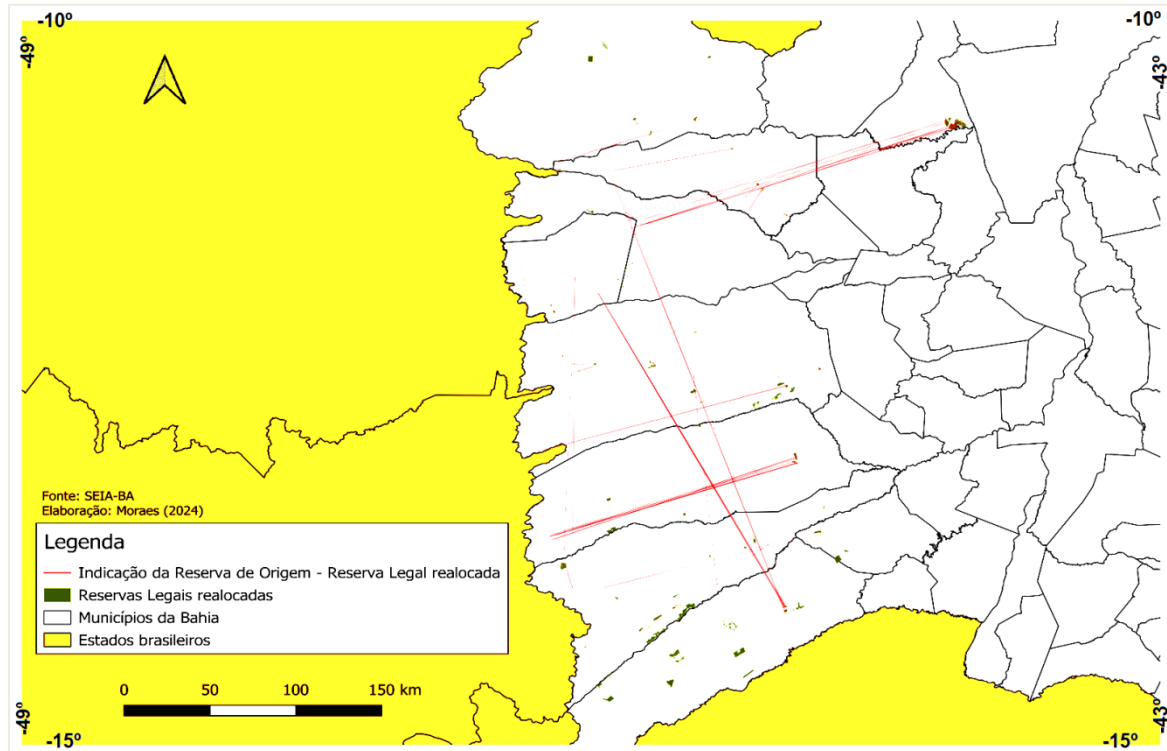


Source: Prepared by Moraes (2025)

Of the 163 ARRL requests, only 22% involve relocations of Legal Reserves over distances greater than 10 km, as shown in Graph 1, which could suggest a limited relationship with the expansion of the agricultural frontier. However, these requests account for 34.1% of the total area relocated, as seen in Graph 2, indicating that, although fewer in number, long-distance relocations involve more land than

short-distance relocations. This highlights that such relocations, although minor, have a significant impact on the territorial redistribution of Legal Reserves.

Map 1 - Legal Reserve Relocations in Western Bahia

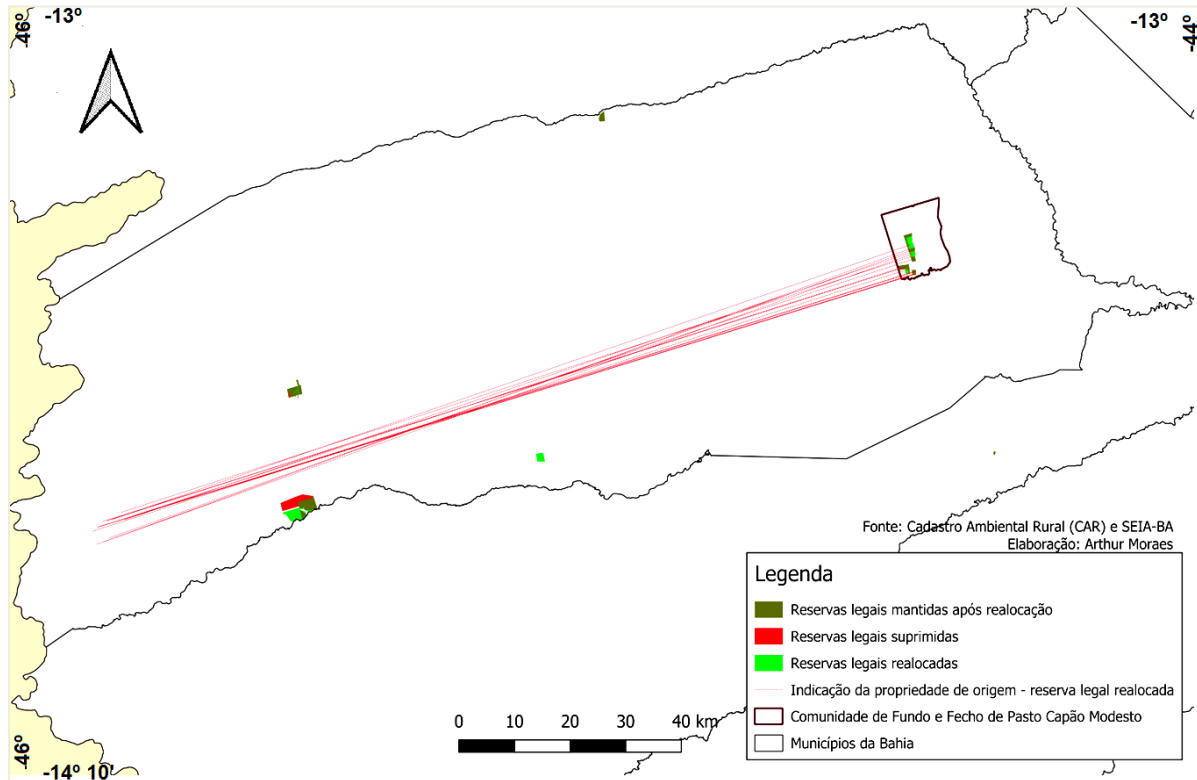


Source: Prepared by Moraes (2025) data from Seia-Bahia (2024)

Map 1 shows that long-distance relocations occur in the direction in which the agricultural frontier of western Bahia expands: from west to east, where land prices are lower, and toward the "water frontier" (Eloy, 2023). Relocations are also observed north and south, toward the still-forested areas located on the fringes of the more consolidated production zone. We can, again, relate this pattern to the expansion of the agricultural frontier.

The case in which the controversy over the use of the device is most visible is in the city of Correntina. Map 2 shows the Legal Reserve Relocations of Owner 2 within the territory of a Fundo e Fecho de Pasto Community.

Map 2 - Legal Reserve Relocations in Correntina, Bahia (2024)



Source: Prepared by Moraes (2025) data from Seia-Bahia (2024)

The Fundo e Fecho de Pasto Capão Modesto Community, mentioned above, is recognized as a traditional community, and the Bahia State Attorney General's Office identified robust evidence of land grabbing to allocate RL (Alessi, 2021). This is an emblematic case in the municipality, where there are repeated records of violence and threats against peasants in its territory, constituting an example of RRL triggering agrarian conflict. It is also worth noting that the lawsuits filed in the name of Owner 2 date from December 13 and 14, 2021, therefore, they occurred during the period of validity of the Ordinance.

Final Considerations

The results allow us to conclude that Ordinance 22.078/2021, issued by INEMA in Bahia, triggered a wave of Legal Reserve relocations that violate the 2012 Forest Code. The Public Prosecutor's Office, in recommending its suspension in 2022, highlighted the potential harmful effects on the environment. This regulation allowed technical reports to justify Reserve relocations by claiming the creation of

ecological corridors and attempting to environmentally legitimize irregular relocations. In most cases, the justification was limited to the supposed "better environmental quality" of the receiving area, and none of the cases available on the website were dismissed, demonstrating the state's leniency toward federal environmental legislation.

The expansion of the agricultural frontier has occurred from the plateaus to the "baixões," regions less suitable for cultivation but with cheaper land (Eloy, 2023; Frederico and Almeida, 2018). In this logic, lowlands or areas farthest from the consolidated agricultural zone have been used to allocate Legal Reserves, freeing up high-productivity land for cultivation, which also violates the 2012 law. This occurs within a broader context of regulatory deregulation at the federal level (Gomes, 2020), with laws that relax land and environmental regularization, which is echoed at the state level with instruments such as this ordinance. State regulatory production, therefore, is part of a broader strategy to legally enable the territorial expansion of agribusiness.

The hypothesis that the Reserve Relocation was related to the expansion of the frontier is confirmed by observing both the direction of the displacements and the actors benefiting: large-scale producers, who have access to information regarding regulatory developments and are able to benefit from them. Furthermore, the focus on community lands, for which land documentation is often weak, constitutes strong evidence of land grabbing associated with this measure. If this is the case, we are witnessing the senseless situation of a process of green land grabbing supported by environmental (de)regulation, according to which environmental flexibility legitimizes the irregular appropriation of land for conservation purposes.

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Author 1: Preparation, discussion of results, bibliographic research, text review
Author 3: Preparation, supervision, discussion of results, bibliographic research, text review
Author 3: Preparation, discussion of results, bibliographic research.

Data availability:

Research data is available in the body of the article.
