

ARTICLES

INDUSTRIAIS DA SECA AND THE POLITICS OF DROUGHT IN THE BRAZILIAN NORTHEAST

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Abstract

This paper examines Antonio Callado's critique of the social and political dynamics surrounding drought in Brazil's Northeast, as highlighted in his 1959 chronicles for the newspaper Correio da Manhã, which exposed the Indústria da Seca – a network of large landowners and politicians who exploited drought relief efforts for personal and political gain. Callado argued that drought, often framed as a climatic issue, perpetuated inequality and reinforced power imbalances. Employing a historical-documentary methodology, this study draws on Callado's chronicles and archival sources. Using Milton Santos' theory of space, it explores how socio-political structures and resource control transformed drought into a tool of profit and domination. Celso Furtado's developmental thought, particularly his advocacy of land reform and equitable resource distribution, informs the analysis. By synthesizing Callado, Santos and Furtado's perspectives, this paper highlights drought as a reflection of entrenched inequalities and a contested site of power.

Keywords

Antonio Callado; Regional planning; Socio-Spatial inequalities; Regional development; Public policies.

ARTIGOS

OS INDUSTRIAIS DA SECA E A POLÍTICA DA SECA NO NORDESTE BRASILEIRO

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Resumo

Este artigo examina a crítica de Antonio Callado às dinâmicas sociais e políticas em torno da seca no Nordeste brasileiro, apresentada em suas crônicas de 1959 para o Correio da Manhã. Callado expôs a Indústria da Seca, uma rede de latifundiários e políticos que exploravam os esforços contra a seca para ganhos pessoais e políticos. Ele mostrou como a seca, frequentemente vista como uma questão climática, era usada para perpetuar desigualdades e manter desequilíbrios de poder. O estudo adota uma metodologia histórico-documental, baseada nas crônicas de Callado e fontes de arquivo. Ancorada na teoria do espaço de Milton Santos, a pesquisa analisa como estruturas sociopolíticas e o controle de recursos moldaram a seca como oportunidade de lucro e dominação. Incorporando o pensamento de Celso Furtado sobre reforma agrária e distribuição equitativa de recursos, o artigo enfatiza a seca como reflexo de desigualdades e um espaço contestado de poder.

Palavras-chave

Antonio Callado; Planejamento regional; Desigualdades socioespaciais; Desenvolvimento Regional; Política Pública.

INDUSTRIAIS DA SECA AND THE POLITICS OF DROUGHT IN THE BRAZILIAN NORTHEAST¹

Tamara Zambiasi

Introduction

Drought in the Brazilian Northeast has long been perceived primarily as a climatic issue, often framed under the crude label *problema do Norte*² (the problem of the North)³ (O Secular Problema Do Norte, 1918). This reductionist view, however, obscures the deeper political and social dimensions that contribute to the chronic vulnerability of the region. Antonio Callado, through his journalistic chronicles, challenged this narrow perspective by introducing the concept of the *industriais da seca* (industrialists of drought), a term that highlighted how certain power structures have profited from drought as a business opportunity (Callado, 1960). This article explores the production of the Northeast not merely as a geographical region but also as a political and social entity in which drought has been manipulated to maintain and reinforce existing hierarchies of power. Building on Milton Santos' theory of relational space (2021 [1996]), this paper examines how drought in the Brazilian Northeast has transcended its natural origins to become a politically and socially constructed phenomenon, thereby reflecting deep-rooted power imbalances. This theoretical framework guides the analysis of how elite control, land ownership, and political decisions have shaped the region's response to drought, foregrounding Callado's critique of the *Indústria da Seca*.

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2. Expression used by the Deputy Ildefonso Albano, from the state of Ceará, in a speech delivered in the Chamber of Deputies, on October 15, 1917 (Albano, 1918). ALBANO, I. *O secular problema do Norte* [The Secular Problem of the North]. Rio de Janeiro: Imprensa Nacional: Biblioteca do Ministério da Fazenda no Rio de Janeiro, 1918.

3. This and all other non-English citations hereafter have been translated by the author.

The semiarid region of the Brazilian Northeast, which includes the states of Alagoas, Bahia, Ceará, Paraíba, Pernambuco, Piauí, Rio Grande do Norte, Sergipe, and parts of Minas Gerais, is characterized by low annual rainfall. Paradoxically, however, the precipitation levels exceed those of other semiarid regions globally, offering periods of water abundance that could support agricultural activities (Embrapa, n.d.). Despite this potential, the region's susceptibility to drought persists and is exacerbated by the unequal distribution of resources. Social and political factors, rather than natural conditions alone, have had a disproportionate impact on the poor, influencing drought management and perpetuating inequality. Historically, public policies have prioritized large-scale infrastructure projects – such as reservoirs, dams, and irrigation systems – while neglecting the underlying social inequalities and imbalanced access to water (Zambiasi, 2022). These strategies have frequently bolstered elite interests, thereby reinforcing the power structures that benefit from drought mismanagement. Celso Furtado, a prominent economist and influential figure during the 1958 drought, posited that the fundamental problem of the Northeast was not the scarcity of water, but the inequitable distribution of both water and land (Tavares; Andrade; Pereira, 1998). According to Furtado, drought has been framed as a profitable enterprise for oligarchic structures (Poder Executivo, 1959), which exploit public funds for their own benefit – a view echoed by Callado's portrayal of the *industriais da seca*. These figures, akin to the *coronéis* ('colonels')⁴, as described by Victor Nunes Leal (1975), operate within an entrenched oligarchic-patrimonial system, perpetuating both the physical and social impacts of drought.

Expanding upon this analysis, Buckley (2010, 2017) examined the role of technocrats and institutions that emerged after the First Brazilian Republic (1889–1930). Although some bureaucrats were sincere in their efforts to mitigate the effects of drought, their work was often constrained by political structures designed to protect the interests of the elite. This tension came to the fore in 1959, when Antonio Callado was sent to the Northeast to document the aftermath of the 1958 drought. His subsequent series of articles, published in the newspaper *Correio da Manhã* and later compiled in *Os Industriais da Seca e os “Galileus” de Pernambuco* [The Drought Industrialists and the “Galileos” of Pernambuco] (1960), exposed the so-called “industry of the drought” and the mechanisms through which large landowners and politicians profited from the ongoing drought, transforming it into a lucrative enterprise.

4. The term *coronel* ('colonel') is not a reference to military rank, but rather to local oligarchic large landowners who exercised patronage and political control in Brazil, particularly during the First Republic.

Callado also exposed the conflicts surrounding a proposed irrigation law (Poder Executivo, 1959). Introduced by President Juscelino Kubitschek, the law sought to regulate land and water use in regions that benefited from public investment. However, Callado's report revealed entrenched resistance from the elites who profited from the mismanagement of drought resources. Celso Furtado, the architect of the proposed law, envisioned the use of water reservoirs for social purposes, advocating the expropriation of surrounding lands and the implementation of land reform (Pinto, 2020). However, despite Furtado's efforts, the bill faced substantial resistance in Congress and was ultimately not approved. This marked the first time that land reform was considered a viable solution to the drought crisis in the Northeast (Furtado, 1989) and remains one of the most significant attempts to redistribute access to land and water across the region.

Recent literature on drought in Northeastern Brazil has highlighted the persistent challenges of this region, exacerbated by inadequate infrastructure, political mismanagement, and socio-economic inequalities. Historically, drought responses have been shaped by the *Indústria da Seca*, where public funds for large infrastructure projects, such as reservoirs, often benefitted political elites rather than the affected populations (Ferreira, 2024a). Additionally, colonial legacies have continued to influence current discussions regarding development. During the colonial period, elites controlled land and water, leaving the majority, especially in the interior, economically dependent (Ferreira, 2024b). Environmental degradation, including deforestation and soil erosion, continues to compound the vulnerability of the region's poorest communities, reflecting the ongoing absence of a coordinated strategy to address both short- and long-term drought impacts.

Against this backdrop, this article examines Callado's depiction of drought as a socially constructed phenomenon, challenging the deterministic narratives that have attributed the *problema do Norte* solely to environmental factors such as poverty, hunger, and migration. Drawing on Milton Santos' conceptualization of geographic space as relational and socially constructed (2021 [1996]), this study situates drought within broader socio-political dynamics. According to Santos, space is not merely a passive backdrop, but a social construct embedded in material conditions and shaped by political, economic, cultural, and ideological forces. This theoretical framework illuminates how elite-controlled power structures transform environmental challenges, such as drought, into instruments of socio-political control.

While the historiography of drought in the Brazilian Northeast is well established, it has predominantly emphasized the physical and political aspects of the crisis. This article contributes by bridging the writings of Antonio Callado

with Milton Santos' theory of relational space, situating drought within a broader socio-political framework. *Os Industriais da Seca* (Callado, 1960) is examined not merely as a journalistic account but also as a historical artifact, revealing how spatial practices and power relations have perpetuated structural inequalities in the region. The paper further examines the intersections between Celso Furtado's vision of land reform and Callado's critique of the *Indústria da Seca*, emphasizing the socio-political foundations underpinning drought management. It demonstrates how decisions regarding land and water allocation were not simply reactive to environmental crises but were deeply intertwined with spatial dynamics of power and control. By integrating historical narrative with theoretical insight, this approach both revisits the past and offers a framework for understanding contemporary challenges in water governance, social justice, and regional development in the Brazilian Northeast.

Callado's chronicles generated significant political repercussions, sparking a national debate on drought and contributing to the creation of SUDENE (Superintendência de Desenvolvimento do Nordeste – Northeast Development Authority). His work represented a critical shift in how drought in Brazil was understood, emphasizing its social roots rather than its characterization as a mere natural disaster. Despite this growing awareness, opposition from influential elites hindered any efforts to implement meaningful reforms such as land redistribution, thus ensuring that the socio-political dimensions of drought remained unaddressed (Furtado, 1989). This article seeks to cast light onto the first state-led attempt to address drought from a social perspective, moving beyond infrastructure-centric approaches that had dominated prior policy discussions. However, due to resistance from entrenched interests, this opportunity for transformative change in the Northeast was ultimately lost. At its core, the article contends that drought in the Brazilian Northeast should not be regarded as a mere climatic event but as a socially constructed phenomenon. Callado's work reveals how political and economic elites, particularly large landowners and politicians, have manipulated the drought crisis for personal gain, transforming a natural calamity into a tool for maintaining power. This historical perspective challenges the conventional view of drought as a natural disaster, framing it instead as a process shaped by socio-political factors such as land ownership, resource allocation, and state power.

The article also situates Callado's critique within the intellectual and political milieu of the 1950s, highlighting Celso Furtado's radical proposals for land reform and equitable water distribution, which directly confronted the elites profiting from mismanaged drought relief. However, as Callado's reporting shows, these reform efforts faced strong opposition from those who stood to lose their privileged

position, revealing the deep-rooted inequality in the region and the lengths to which the elites have historically gone in order to safeguard their interests at the expense of the landless poor.

The methodology employed in this article is grounded in a historical-documentary analysis of Antonio Callado's chronicles, with a critical analysis of their content. The primary source is Callado's book *Os Industriais da Seca e os 'Galileus' de Pernambuco*, which compiled his chronicles originally published between September 10-23 and November 29- December 2, 1959. The book is structured into three sections: (1) O Ceará contra a irrigação [The State of Ceará resists irrigation], (2) Paraíba contra a lei (The State of Paraíba in Defiance of the law, and (3) Despertar em Pernambuco [An Awakening in the State of Pernambuco]. This analysis focuses on the first two sections, which address the controversies surrounding the irrigation law and how landowners leveraged drought as an instrument of power over the poor. Part 3, addressing rural social movements, falls outside the scope of this paper and is therefore not considered.

By positioning Callado's work as both a narrative and historical document, this study reflects the socio-political dynamics of 1950s Brazil. Its historical and journalistic dimensions offer a lens for analyzing power structures and drought policies, revealing how elite control and political decision-making shaped resource allocation. By integrating Callado's work into the historiography of drought and inequality in the Northeast, the paper underscores the intersection between journalism, public policy, and social power. By combining Callado's investigation with Furtado's reformist vision, it argues that droughts are not merely natural events but rather, outcomes shaped by the political economy of the region. The study concludes that the Northeast's ongoing vulnerability to drought reflects the entrenched resource inequality and the exploitation of public funds by the elites.

1. Terra Ignota

As one approaches it, one begins to understand why it is that, until now, the data or exact details concerning this vast tract of territory, which is almost equal to the land of Holland in extent (9°11'-10°20' of latitude and 4°-3° of longitude), have been so very scarce. Our best maps, conveying but scant information, show here an expressive blank, a hiatus, labeled *Terra Ignota*, a mere scrawl indicating a problematic river or an idealized mountain range. (Cunha, 2010 [1902], p.42)⁵

5. N.B. For direct citations the English version was used of CUNHA E. da. *Rebellion in the Backlands*. Chicago, The University of Chicago Press. (1944, p. 9).

Understanding the dynamics and power relations in Northeast Brazil requires an examination of how this region has been historically constructed. The Northeast region is not a naturally defined space. In his classic work *Os Sertões* [Rebellion in the Backlands] (Cunha, 2010 [1902]), Euclides da Cunha famously described it as an “archipelago” – a territory so unfamiliar and fragmented that it could be interpreted in multiple ways. The formation of the Northeast as a region can be analyzed through three interrelated dimensions: its physical geography, the cultural and identity constructions fueled by twentieth century regionalist movements, and the harsh reality of recurring droughts. These are not chronological categories, since the processes often intersect and overlap; rather, they are proposed as three distinct lenses through which to understand and represent the Northeast.

Geographically, the Northeast is one of Brazil’s five main regions, covering approximately 18% of the country’s total area. More than half of this territory falls within the semi-arid zone, commonly referred to as the “drought polygon”. This area encompasses around 1,200 municipalities and is home to approximately 23 million people. The region is defined by the Caatinga biome, a unique Brazilian ecosystem characterized by drought-resistant vegetation and intermittent rivers (IBGE, n.d.). One of the most prominent of these rivers, the Jaguaribe, extends over 600 km and was considered the longest intermittent river in the world until the construction of the Orós Dam in 1920 (Gatto, 1999).

When examined through cultural, social, and economic lenses, space reveals multiple dimensions that extend beyond its materiality. Scholars such as Milton Santos and Michel de Certeau conceptualize space as relational, emphasizing that geographical space is shaped by human practices within the material world (Certeau, 2014; Santos, 2021 [1975]; [1978]). From this perspective, space is understood as a social construct, deeply embedded in material conditions and constituted through the interplay of political, economic, cultural, and ideological processes. It is not merely a passive backdrop to human activity, but an active participant in the production and reproduction of social relations, continuously shaped by its historical context (Santos, 2021 [1975]; [1978]). Thus, space emerges simultaneously as both a product of, and a force shaping the social, economic, and political relations of its time.

The Northeast, as a constructed social space, required representation as a distinct region with its own characteristics in order to achieve social embeddedness. This spatial construction is crystallized within power dynamics, particularly in the relationships between landowners and peasants. Additionally, space is continuously redefined through the appropriation of public structures by wealthy groups that modify it in order to meet their specific needs. Thus, social space becomes the privileged locus where economic, political, and social processes converge and act

upon the wider social structure. Against this backdrop, the climatic challenges of the Northeast are recast as a multidimensional issue, inseparably bound up with broader socio-economic and political dynamics.

In light of this, the Northeast can be interpreted as a product of the power-knowledge dynamics mobilized during the early twentieth century. Its spatial identity was constructed through regionalist practices that emerged at a moment when efforts were directed towards forging a unified national identity. These efforts were reflected in the literature, the modernist movement, and eugenic thought, which progressively fostered a distinction between the North and South of Brazil. The establishment of the IFOCS (Inspetoria Federal de Obras Contra a Seca [Federal Inspectorate for Drought Works]) in 1909 provided a key institutional mechanism for addressing drought, effectively institutionalizing the region's climatic challenges. This institution also became a strategic arena where politicians from the North advanced regionalist narratives in opposition to the dominant oligarchies of São Paulo and Minas Gerais, particularly when competing for public investment (Albuquerque Jr., 2011; Moraes, n.d.).

The term “Northeast” was first officially used by the IFOCS. Until 1925, the area was considered part of an a territorially undifferentiated space, described simply as the northern region, afflicted by prolonged periods of drought. At that time, newspapers from the South began to highlight the ‘problem of the North’, without yet distinguishing between the North and Northeast. This discourse, which framed the ‘problem of the North’ as a unified regional issue rather than one affecting isolated localities, contributed to consolidating the identity of the provinces and states in the Northeast. This effort was led by the heirs of the *coronéis*, landowning elites who were sent to study in the city of Recife at the Law School and the Seminary. This emerging regional intelligentsia played a central role in constructing the Northeast as a cohesive region (Albuquerque Jr., 2011). Their objective was to position the Northeast as a region deserving of special attention from public authorities, a recognition that was ultimately secured by increased public funding to combat drought.

The *coronéis* constitute a fundamental category for understanding the Brazilian Northeastern region and its relationship with drought. The term *coronel* denotes a powerful landowner who wields significant political influence through control over the local electorate. As Victor Nunes Leal (1975) explained, *coronelismo* – the practice of localized, authoritarian power (*mandonismo*) – is a defining feature of political life in Brazil's interior cities. It represents the materialization of private, personal power that emerges within a political system characterized by broad suffrage yet intertwined with an economic and social structure that privileges a select few.

Rooted in Brazil's colonial history, *coronelismo* involves the co-optation of public resources and institutions for private gain. It operates within the logic of *mandonismo*, in which collaboration with public authorities is based on an exchange of favors. The *coronel* maintains influence over government through electoral coercion, in a practice known as *voto de cabresto* (vote buying), which enforces arbitrary control over the inhabitants of impoverished small towns (Leal, 1975). The category of *coronéis* is central to understanding the sociopolitical dynamics discussed in Callado's articles, particularly regarding the framing of drought as a social construction rather than a purely environmental issue.

In this context, Santos (2021 [1975]) provides an invaluable lens for understanding how space functions not merely as a passive backdrop but an active agent in the reproduction of social relations. The *coronéis'* strategic appropriation of land and water resources exemplifies the manner in which elites have historically configured space to consolidate and perpetuate their socio-economic and political dominance. Their manipulation of public resources, including irrigation infrastructure, further illustrates how space, through both material and symbolic practices, was mobilized to sustain a system of inequality. Thus, the *coronéis* transformed the physical landscape of the Northeast into a socio-political tool, reinforcing dependency and maintaining control over the landless poor. These socio-spatial practices underscore the intersection of political power, resource distribution, and the constructed nature of space, ultimately demonstrating how elite control over spatial resources underpinned the enduring systems of inequality in the region.

The Northeast, both historically and today, is often defined by its most relentless challenge: drought and its far-reaching consequences. The drought of 1877 in the state of Ceará represents a historical milestone, marking the first instance in which such an event received widespread newspaper coverage across the country. This publicity brought the issue to national attention, framing drought not only as a regional concern but also a national problem (Albuquerque Jr., 2011). Rodolfo Teófilo, a Brazilian historian, vividly captured the devastation of this event in his classic work *A Fome* [Hunger] (1890), in which he described the horrors of the 1877 drought. His account offers a detailed portrayal of human suffering caused by the prolonged scarcity of resources, cementing the drought in the collective memory of the nation as a pivotal moment in the social and environmental history of the Northeast.

Plague and famine claim more than 400 lives per day. What I can tell you is that, while I was standing on a street corner, I saw 20 corpses pass by – and the way they are taken to the mass grave! It's horrific!

(...) And the children who die in the camps, how they are carried away! In the morning, those responsible for burying them, gather them up in a large sack, and once the bodies have been bagged, this coarse sackcloth shroud is tied to a pole and carried to the grave. (Teófilo, 1890, p. 718)

The 1877 drought, which lasted three years, was the longest recorded in the nineteenth century. While there are no official statistics on the number of deaths, estimates indicate that approximately 500,000 people perished from either hunger or drought-related diseases. Additionally, over 100,000 individuals migrated to Fortaleza, the state capital, which at the time had a population of only 25,000 (Secreto, 2020). It was not until 1879 that Emperor Dom Pedro II visited the region. Appalled by the dire conditions, he reportedly declared that he would spend every last crown jewel to ensure that no one would ever suffer from drought again. In response, an official committee was established to study the problem, recommending the construction of railroads to facilitate migration to the coast, and dams to secure water supply and irrigation. Although some of these recommendations were implemented, no significant structural changes were made (Lima; Magalhães, 2018). This episode illustrates the limited governmental response and enduring vulnerability of the Northeast to environmental crises.

The outcomes of the Great Drought of 1877 serve as a poignant example of how political decisions are able to shape the extent to which a climatological event becomes a social catastrophe. In response to this disaster, Emperor Dom Pedro II ordered the construction of the first reservoir in the *sertão* [hinterland] region, the Cedro Dam in Ceará, which began in 1890, and took 15 years to complete, relying heavily on the labor of drought victims. In 1909, the government established the Inspetoria de Obras Contra a Seca (IOCS, Inspectorate for Works to Combat Droughts), the first public institution dedicated to addressing the issue of drought. However, the IOCS framed drought solely as a climatic phenomenon, overlooking the complex social dynamics that exacerbated its impacts. This perspective failed to acknowledge the role of political and economic structures in transforming environmental challenges into social disasters (Zambiasi, 2022).

By the early 1900s, two distinct approaches had emerged to address the problem of drought in Northeast Brazil. The first sought to establish irrigated small-farmer settlements near dams to promote agricultural self-sufficiency. The second centered on constructing reservoirs to secure water supplies, mainly for the existing cattle production. However, with political life dominated by the *coronéis*, who controlled state machinery and the IOCS, the first approach was seen as disruptive and a potential threat to entrenched landholding interests. Consequently, it was largely dismissed. Many experts have argued that the approach pursued by the

IOCS contributed to the development of a so-called “drought industry,” where federal funds were channeled toward Northeastern politicians and landowners without addressing the underlying issues faced by the landless poor (Buckley, 2017). Throughout the twentieth century, this mechanism perpetuated vulnerability to drought and famine, bolstered by the narrative propagated by the *coronéis* and the political elite that drought was solely a matter of climatic instability, rather than a deeper issue rooted in political-economic structures.

It was only in the 1950s, with the proposals of Celso Furtado, that the prevailing paradigm surrounding the Northeast drought problem was seriously challenged. Furtado’s diagnosis of the “Northeastern problem” culminated in a report that gave rise to *Operação Nordeste*. This initiative aimed to expose the socio-economic realities of the region, making it impossible to justify the continued use of public funds to perpetuate the “anachronistic and anti-social structures” that had become entrenched due to extreme economic inequalities (Furtado, 1959; 1989, p. 56). Furtado’s vision, championed by President Juscelino Kubitschek, was framed as a “fight for the Northeast”, emphasizing the need for structural change rather than preserving the status quo.

One of Furtado’s key critiques was aimed at the emphasis placed on large-scale irrigation dams, which he saw as emblematic of the misuse of public resources. These projects were underutilized due to political rather than economic constraints, and the benefits disproportionately favored wealthy landowners. The government not only funded the construction of these dams, but granted irrigation rights to large landowners at minimal cost, significantly increasing the value of their land overnight. Furtado’s proposals sought to address these inequities and redirect resources toward more socially equitable and economically viable solutions for the region (Furtado, 1959; 1989).

Reflecting upon this period, he later emphasized that failure to implement land reform was the main reason drought-related crises persisted in the region. Without addressing the inequitable distribution of land and power, Furtado believed that any attempt to solve the drought problem would remain ineffective. He considered that the Northeast’s entrenched poverty and inequality were the direct outcomes of long-standing Federal Government policies. During rainy periods, landowners employed local inhabitants for livestock farming, xerophytic cultivation, and subsistence agriculture. However, during the dry season, these workers were forced to rely on government relief to survive. Without this assistance, the population faced starvation or was forced to migrate to other regions. Yet, this public aid simultaneously perpetuated the traditional social structures, binding the population to the land and reinforcing the political control exercised by the *coronéis* over the region’s electorate (Furtado, 1959).

Moreover, the limited public resources allocated to the region were often used to build large dams, such as the Orós Dam, or to fund ad hoc emergency relief projects. These initiatives primarily benefited landowners, who retained control over irrigated land, which they used to cultivate sugar, cachaça (local rum), cattle, and other goods for export to wealthier southern markets. Furtado argued that this system prioritized the interests of the elite while exacerbating the vulnerability of the landless poor (Furtado 1959; 1989).

When the 1958 drought peaked, President Juscelino Kubitschek called upon Celso Furtado to draw up a solution. As the lead economist behind the CEPAL-BNDE Joint Study Group (Grupo Misto de Estudos CEPAL-BNDE), a technical cooperation agreement between the Economic Commission for Latin America (CEPAL) and the National Bank for Economic Development (BNDE), Furtado played a critical role in producing previously unavailable economic data. This initiative aimed to diagnose Brazil's macroeconomic realities, formulate strategic development plans, and guide public investments (Pinto, 2020). Furtado was tasked with devising a comprehensive plan for the Northeast, which culminated in the 1959 publication *Uma Política de Desenvolvimento Econômico para o Nordeste* [An Economic Development Policy for the Northeast] (Grupo de Trabalho do Desenvolvimento do Nordeste, 1959). In this report, Furtado diagnosed the region's underdevelopment, highlighting regional inequality and the persistence of colonial-era practices that maintained outdated power structures. He argued that the solution to the drought problem was fundamentally linked to land reform, which he saw as essential to addressing the region's deep-seated economic disparities.

This plan materialized through the creation of SUDENE, led by Celso Furtado. Central to SUDENE's mission was the Irrigation Law (Nº 882/1959), which sought to restructure land for food agriculture as a means of combating drought. The law focused on developing an irrigation plan that included the expropriation of land, particularly in areas surrounding reservoirs and irrigated zones (Poder Executivo 1959). The goal was to redistribute these lands among a new class of irrigators, drawn mainly from landless workers in the region. By providing these workers with access to both land and water resources, the policy aimed to enable sustainable food production through more efficient water use (Pinto, 2023). This initiative represented a significant shift in addressing the social and economic roots of the drought problem, as it sought to empower local populations through land reform and strengthen resource management.

The objective of the irrigation policy was to serve a social purpose, overseen by the government, to ensure the stability of food production in the Northeast. The project drew inspiration from similar initiatives previously implemented in the

United States. Central to the law was the promotion of land reform through the expropriation of irrigated land, as outlined in its key provisions for the expropriation of land: (a) from absentee owners who did not engage in agriculture as their primary activity – the absent –, (b) from wealthy landowners whose holdings exceeded two plots of agricultural land⁶ – the wealthy –, and (c) from those whose landholdings were too small to be considered economically viable within the irrigation system – the dispossessed (Poder Executivo, 1959). This framework aimed to redistribute land to reduce inequalities and establish a basis for sustainable agriculture, particularly benefiting landless and marginalized workers.

To initiate the process, all land irrigated by public reservoirs was to be expropriated. However, former landowners were permitted to retain a portion of their land – larger than the plots allocated to others – provided they agreed to comply with the new guidelines for irrigated agriculture. These guidelines prioritized the cultivation of non-permanent crops, with a preference for food production aimed at local markets. The remaining expropriated land was to be redistributed among family units, with the aim of fostering a new “peasant class” (Furtado, 1959, p. 65). This redistribution sought to empower small-scale farmers and promote more equitable land use, and ensure that agricultural production would primarily serve the local population.

2. The Brazilian Way of Life

In the Northeast, the Brazilian Way of Life is taken to its extreme: those with influence have everything, while the downtrodden, amidst the greatest ignorance and helplessness, survive through sheer, unyielding stubbornness (Callado, 1960, p. 18).

Antonio Callado, whose 1959 chronicles in the influential Rio de Janeiro newspaper *Correio da Manhã* – renowned for its strong editorial stance (Leal, n.d.) – helped reframe drought as a social and political issue and played a significant role in shaping public discourse. When Celso Furtado sought support for his vision of reforming the Northeast through *Operação Nordeste*, the newspaper’s director, Paulo Bittencourt, promptly endorsed the initiative, recognizing both its importance and potential impact. Bittencourt began by publishing a front-page interview with Furtado outlining the proposed policies for the Northeast. Subsequently, Callado, one of the newspaper’s leading journalists, was dispatched to the region to observe

6. A “plot of agricultural land” refers to the standard irrigated unit defined by the DNOCS (Departamento Nacional de Obras Contra as Secas [National Department of Works to Combat Droughts]), comprising 15 hectares (Poder Executivo, 1959).

firsthand the effects of the longstanding, flawed political practices that had historically shaped the Northeast's underdevelopment (Furtado, 1989).

Callado's investigation into the *Indústria da Seca* demonstrated how both physical and socio-political spaces are systematically manipulated by powerful elites to maintain control over landless and marginalized populations. In the Northeast, landowners and political figures assert dominance not only by controlling land and water resources but also by directing the allocation of public funds, thereby reshaping the physical landscape to reinforce their political and economic power. In this context, space is neither passive nor neutral; it actively shapes, and is shaped, by social relations. The manipulation of space thus becomes a critical mechanism for perpetuating social inequality, as elites reconfigure the environment to secure and consolidate their privileged position (Santos, 2021 [1975]; [1979]).

Born in 1917, Antonio Callado was an intellectual deeply committed to transforming Brazil through social intervention. He began his journalistic career at *Correio da Manhã* and eventually rose to the position of editor-in-chief. During the military dictatorship, Callado was arrested multiple times because of his outspoken left-wing views. His career as a journalist extended beyond Brazil, working as a BBC correspondent and then later contributed to prominent newspapers such as *Folha de São Paulo* and *Jornal do Brasil*. Alongside his journalism, Callado remained dedicated to literature, earning recognition for his literary contributions and receiving a nomination to the Brazilian Academy of Letters in 1994 (Martins, 2018). As a journalist, he firmly believed in his responsibility to serve public interest. Reflecting on this conviction, he stated in an interview:

Since I began writing for newspapers, I have dreamed of a real Brazil, not a fictionalized one, but one that is orderly, with no hunger, no illiteracy, instead of this ridiculous attempt at a country in which we live (Martins, 2018, p. 25).

When Antonio Callado was dispatched to the Northeast in 1959, his mission was to uncover the structures, politicians, and landowners who stood to benefit from the distribution of public funds and development of irrigated lands. He encapsulated his findings with the now-famous term "*Industriais da Seca*", denoting a network of vested interests that profited from the region's chronic drought. These interests operated through deliberate inaction and strategic omissions, particularly by the governors of the nine Northeastern states, whose failure to act perpetuated the exploitation of federal drought relief efforts (Callado, 1960, p. 7).

At the time, President Juscelino Kubitschek had just submitted a proposed irrigation bill to Congress, and Callado sought to understand why many regional

politicians remained silent or opposed the legislation. In his chronicles, he exposed the strategy of the *industriais da seca*. When the irrigation project was announced, state representatives defended the interests of the “absent” landowners and the “wealthy”, voicing concerns that the law would disrupt the economic organization of large and medium enterprises. They contended that the bill would not bring “social justice,” asserting that landowners provided employment for the landless. Notably, there was no acknowledgment of the “dispossessed” or the broader population subjected to these power structures. With characteristic irony, Callado highlighted the hypocrisy of the elites, reporting: “The smallholding must end, but the landless workers should not leave their municipalities: if they leave, who will vote for their mentors?” (Callado, 1960, p. 9), thereby underscoring how political interests prioritized electoral control over genuine reform for the marginalized.

Until that point, the water provision policy in the Northeast had focused on the construction of large reservoirs, designed to create irrigated areas for agricultural development. However, this model produced significant social consequences. Those whose land had been submerged to make way for the reservoirs were forcibly displaced, losing both their homes and their livelihoods. Conversely, landowners adjacent to the newly created reservoirs found themselves in possession of the most valuable property – what Callado referred to as the “most fantastic lottery in the world” (Callado, 1960, p. 7), where individuals could become wealthy overnight simply because of the geographical position of their land.

The mechanisms operated as follows: the landowner, who in normal years benefited from an abundance of cheap labor, would, during droughts, send his “slaves” to the DNOCS, which then assigned them to do whatever and spend their money at stores owned by people connected to the DNOCS. Deputies take advantage of the situation to funnel part of the money to their electoral zones. The remainder is of little consequence: the “emergency” financial aid melts away in the Northeast just like ice cream (Callado, 1960, p. 29)

This system exacerbated the region’s demographic challenges, as the surplus population – deprived of irrigated land – was left with no option but to serve as cheap labor for wealthier landowners. Moreover, these landless workers were retained in the region through the provision of “emergency funds”, government aid distributed during droughts, ensuring their dependence on the elites and maintaining their role as political “voting fodder”.

This perpetual “emergency” situation left poor peasants with little prospect of finding viable alternatives to a sustainable livelihood. Remaining in the region signified facing a steady decline in agricultural income, which forced many to

migrate to other areas, such as the more fertile and rainier state of Maranhão, where some had already relocated. In an interview with Callado, Guimarães Duque, a DNOCS employee, posed the crucial question: “What future awaits these migrants without substantial support or assistance?” Duque emphasized that the issue extended far beyond the drought itself. The real problem lay in socio-economic structures that perpetuated inequality and dependency, creating a systemic issue that rendered solutions focused solely on environmental factors inadequate. As Duque poignantly remarked, the root cause was not drought alone but the deeply entrenched political and economic inequalities that shaped the region:

It is insufficient for the government to simply support CODENO [Conselho de Desenvolvimento do Nordeste–Northeast Development Council], which recognizes the urgency of relocating this population. The government must also resist responding to telegrams from deputies whose sole concern is to ensure that their electorate remains in place (Callado, 1960, p. 29)

Antonio Callado revealed that public policies in the Northeast, rather than alleviating the suffering caused by droughts, were designed to serve the interests of powerful political groups in the region (Martins, 2018). In his articles, he described the Drought Industry as intricately tied to both the DNOCS and regional politics, a system composed of two key players: landowners controlling irrigated lands, and politicians advocating for their interests. Callado vividly illustrated this relationship, with a famous Brazilian phrase: “juntar a fome com a vontade de comer, ou a sede com a vontade de beber” (pairing hunger with the urge to eat, and thirst with the urge to drink) (Callado, 1960, p. 12).

One of the most striking examples Callado uncovered was the construction of the Quixeramobim Reservoir, a project secretly financed with public funds intended for another dam. The reservoir was built on the lands of General Wicar, whose three sons held prominent public offices: one as a State Deputy, another as a Federal Deputy, and the third as the director-general of DNOCS (Callado, 1960, p. 13). This case illustrates how public resources earmarked for drought relief were diverted to benefit the political elite, reinforcing the systemic corruption and exploitation Callado sought to expose.

In addition to those seeking control over irrigated lands, another influential group highlighted in Callado’s articles was the *gente da carnaúba* – the carnauba wax plantations and salt mines. Led by Deputy Franklin Chaves, a carnauba farmer, this group opposed the construction of the Órus reservoir, which would ensure a constant water supply to the Jaguaribe River. Prior to the dam’s completion in the 1960s, the banks of the Jaguaribe dried up during droughts, a condition crucial to

their industries. A permanent water flow threatened to reduce the production of carnauba wax, and the salt mines would be compromised as salt could dissolve in the water (Callado, 1960, p. 20). Furthermore, the persistence of drought conditions was economically advantageous for the wealthy elites of the region, since the emergency aid provided to peasants during droughts ensured a steady supply of cheap labor. This labor force was a critical driver of the Northeast's economy, benefiting landowners while keeping the region's most vulnerable population trapped in a cycle of poverty and dependence.

In the final sections of his articles, Antonio Callado delved deeper into the social injustices perpetuated by the *Indústria da Seca*, revealing how poor peasants were subjected to degrading conditions. One notable example he highlighted was the case of Deputy Jacó Frantz, who had occupied public land illegally for more than 30 years at the site of the Pilões Reservoir. This case further underscores the extent of landowner control over state machinery in the Northeast.

The state of Paraíba opposed the construction of the Pilões Reservoir, the land for which had already been expropriated by the federal authorities. The original plan envisioned a dam with a capacity of 150 million liters. However, following negotiations between the government of Paraíba and the DNOCS, an agreement was reached to scale down the reservoir's capacity to 13 million liters. The remaining land was designated for subsistence farming, with peasants receiving one-year contracts from the Federal Government to cultivate 10 hectares each, although without any entitlement to ownership (Callado, 1960).

Deputy Frantz exploited this system by leasing 10 hectares in his own name and an additional 10 hectares under the names of each of his siblings, thereby converting plots intended for smallholder subsistence into significantly larger properties. This manipulation of public resources for personal gain reflects the broader patterns of exploitation Callado sought to expose, in which public land and resources destined for the benefit of the poor were systematically co-opted by powerful landowners.

Frantz exemplified what Callado termed "the absent": landowners who possessed extensive tracts of land yet lived far away, in this case using illegally occupied land – originally designated for subsistence farming – for raising cattle. Frantz lived comfortably in "beautiful houses in Cajazeiras", over 400 kilometers away from the property. Exercising considerable influence over the DNOCS, he not only evaded any repercussions for his illegal occupation but also went so far as to evict two peasants who held legitimate contracts on the land.

Callado recounted his conversation with the evicted peasants, which reveals the profound power imbalance: "And you did nothing? we ask. 'The major is more

powerful than the government,' they answer" (Callado, 1960, p. 26). This exchange highlighted the systemic inequality in the region, where landowners wielded more power than the government itself, deploying it to displace those for whom the land was intended. Frantz's case thus exemplifies broader patterns of corruption and the manipulation of public policies, which enabled a privileged minority to prosper while the majority remained mired in poverty.

Conclusion

Antonio Callado's investigation into the *indústria da seca* compellingly demonstrates that drought in the Brazilian Northeast, far from being a mere climatic phenomenon, has been socially constructed and manipulated to serve the interests of the regional elite. Callado's analysis reveals how drought relief policies, instead of alleviating the suffering of the poor, were systematically co-opted by powerful landowners and politicians to consolidate their wealth and political influence. His term *indústria da seca* encapsulates this exploitation, whereby federal funds and public infrastructure projects intended for drought mitigation were redirected to benefit a small, privileged minority, leaving the most vulnerable populations largely unassisted.

Callado's chronicles challenged the reductionist interpretations of drought as a purely natural disaster and emphasized its socio-political dimensions. He revealed how regional elites, particularly the *coronéis* and their allies, maintained control over both land and water resources, using public works, such as dams and irrigation systems, not to assist the landless poor but to increase the value of their own properties. This dynamic is rooted in the broader history of *coronelismo* in the Northeast, where private power was deeply intertwined with public institutions, reinforcing a hierarchical social order that benefitted a privileged few at the expense of the many.

This paper has also examined the contributions of Celso Furtado, whose vision for land reform and equitable resource distribution represented a direct challenge to these entrenched structures. Furtado's proposals, notably the 1959 irrigation law and the creation of SUDENE, sought to break the cycle of dependency by redistributing land and water to the landless, fostering the emergence of a "peasant class". However, as Callado's reporting revealed, these reform efforts were met with fierce resistance from the political and economic elite, who viewed land reform as a threat to their power and profits. The failure to implement these reforms allowed the status quo to persist, perpetuating both physical and social vulnerabilities associated with drought.

Furtado's vision extended beyond mere economic redistribution. By reallocating land and water resources, he sought to challenge the spatial practices that allowed elites to monopolize critical resources, thereby aiming to transform the power dynamics of the region. His proposals aimed not only at economic equity but also at reconfiguring the geography of power, disrupting the social order that perpetuated the enduring vulnerability of the landless poor.

The significance of Callado's work lies not only in his critique of the *indústria da seca* and the shortcomings of the drought mitigation policies, but also in his broader argument regarding the intersection of environmental issues, social inequality, and political power in Northeast Brazil. The persistence of drought as a regional crisis is not simply a result of climate variability but is closely tied to the unequal distribution of resources and the misappropriation of public funds. This perspective shifts the focus from technical solutions, such as dam construction, toward the need for structural socio-political reforms that address the root causes of inequality. Callado's work also points to the role of public perception and the media in shaping national discourse. His reports, published in *Correio da Manhã*, were instrumental in bringing the realities of drought and its manipulation by elites into the national consciousness. By framing drought as a socio-political issue, Callado contributed to a broader debate on regional inequality and the need for comprehensive reforms. His chronicles functioned not merely as a historical critique but as a call to action, urging for solutions to the Northeast's problems grounded in justice and equity rather than exploitation and opportunism.

Despite these efforts, as both Callado and Furtado observed, the deep-seated structures of inequality remain largely intact. The creation of SUDENE marked a significant moment in acknowledging the socio-political dimensions of drought, yet the failure to implement land reform and redistribute resources left the fundamental problems unresolved. The *indústria da seca* endures as a reminder of how political and economic systems can transform natural disasters into long-term social crises.

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