

# REGIONAL DEVELOPMENT AND THE LEGAL CONSTRUCTION OF NORTHEASTERN

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## Abstract

The Northeast is a concept that is crystallized in the unconscious of the Brazilian population, designating a geographically located portion of the national territory. This article proposes to revisit the construction of this concept from a political and legal perspective, showing the choices made in each historical period to provide the intended regional development through institutions such as Chesf, DNOCS, and Codevasf, among others. The conclusion points to possible ways to reinvent the region, mainly due to the concept of the Matopiba. The study follows Geolegal methodology by using a historiographical base of the legal facts (Brazilian legislation) to produce a geographical value (regional development of the Northeast).

**Keywords:** Codevasf, DNOCS, São Francisco River, Drought Polygon, Northeast Region, Legal Geography

## Resumo / Resumen

### DESENVOLVIMENTO REGIONAL E DESAFIOS DA CONSTRUÇÃO JURÍDICA DO NORDESTE

Nordeste é um conceito que está cristalizado no inconsciente da população brasileira, destinado para designar uma porção do território nacional geograficamente localizado. O artigo propõe visitar como este conceito foi construído sob a ótica política e jurídica, mostrando as opções realizadas em cada período histórico que proporcionaram o pretendido desenvolvimento regional por meio de instituições como a Chesf, o DNOCS, a Codevasf etc. Finaliza apontando possíveis caminhos de reinvenção da região, principalmente por força do conceito de Matopiba. O estudo respeita a metodologia de Geodireito, ou seja, usa como base uma historiografia dos fatos jurídicos (conjunto da legislação brasileira) para produzir um valor geográfico (desenvolvimento regional do Nordeste).

**Palavras-chave:** Codevasf, DNOCS, Rio São Francisco, Região Nordeste, Geodireito.

### DESARROLLO REGIONAL Y LA CONSTRUCCIÓN LEGAL DEL NORESTE

Noreste es un concepto que se cristaliza en el inconsciente de la población brasileña, destinado a designar una parte del territorio nacional geográficamente ubicado. El artículo propone reparar cómo este concepto fue construido desde una perspectiva política y jurídica, mostrando las opciones hechas en cada período histórico que proporcionó el desarrollo regional deseado a través de instituciones como Chesf, DNOCS, Codevasf, etc. Concluye señalando posibles formas de reinvencción de la región, principalmente debido al concepto de Matopiba. El estudio respeta la metodología de Geoderecho, es decir, utiliza como base hechos jurídicos (conjunto de la legislación brasileña) para producir un valor geográfico (Desarrollo Regional del Noreste).

**Palabras-clave:** Codevasf, DNOCS, San Francisco, Polígono de sequías, Geoderecho.

## INTRODUCTION

Regional development is one of those concepts that are easy to understand but complex to define. Over time it has been the object of several theories without ever achieving a solid, analytical, or consistent construction (SANTOS, 2003, p. 111). Its different epistemologies have invariably converged under the dominant economic bias in the literature (FRANKLIN, 1973 p. 207) and, in some way, it should produce sociological results apportioned to a given space. At the center of this allocation of resources was a search to identify industrialization processes that would correct the underdevelopment of an area through interconnections between urbanized regions.

Essentially, regional development policies ought to have two main objectives: to improve incomes and living standards in the regions and correct the main imbalances in the availability of social and economic opportunities between different parts of the nation (SEMPLE; GAUTHIER, 1971, p. 109 ).To achieve these goals, it was important to identify the importance of the role of homogeneity, centrality, and flows in the organization of regional life, that is, in the characterization of nuclei and peripheries (GEIGER, 1970, p. 160). Hence the emergence of the need for national integration, leading to the gradual elaboration of a national regional development policy (BECKER, 1974, p. 9).

The comprehension of what a regional development policy is raises issues that are seldom addressed in geographic literature. Understanding the region and how this space is governed requires knowledge of who governs it politically through a legislative framework. After all, norms create spaces. The prime example is the offer of tax exemptions for manufacturing activities in a certain area. Manaus is an excellent global example of the power of rules to effect territorial transformation, as the legislative creation of the free trade zone enabled a series of economic advances that changed the Amazon region as a whole by creating an economic-financial, demographic and social centrality.

In light of the above, we will carry out a geolegal analysis of how the concept of regional development constructed what is now known as Northeastern Brazil through legislation. To this end, the origins of the discussions of the Brazilian regional division that took place at the IBGE autarchy (1938-1967) will be analyzed, together with the development of electricity production on the São Francisco River as an economic amalgam of the concept of the Northeast. Also, we examine the consequences of the 1970 decree formalizing Brazilian regionalization, the establishment of the Northeast region in the Federal Constitution of 1988, and the new possibilities that have emerged facilitating the development of regional Geography.

## REGIONAL BACKGROUND: THE SÃO FRANCISCO RIVER AS THE NORTH REGION

Since antiquity, territorial division has been a method to manage existing spaces, to a greater or lesser degree of sophistication. As an example, when sailing into the unknown, Portugal and Spain divided the world through a legal act (Treaty of Tordesillas, 1494) that used two meridians to divide up which part of the globe would belong to each country. Once the Portuguese arrived in Brazil, the notion of hereditary captaincies involved nothing more than establishing imaginary lines perpendicular to the Tordesillas meridian, as a political move by the Portuguese Crown. Virtually in the center of this territory, the São Francisco River aroused interests and curiosities from the beginning<sup>1</sup>.

The first more comprehensive studies of its potential can be attributed to Teodoro Sampaio, who was part of the “Hydraulic Commission” in 1879 and investigated, among other things, the course above the Paulo Afonso waterfall to Pirapora, in Minas Gerais (EXÉRCITO 1977. p. 43). At that time, Salvador and Recife were, respectively, the second and third most populous cities in Brazil (1872 Census).

Concerning the official instances of geographical production in Brazil, the creation of the Geographical Service in 1890<sup>2</sup>, during the republican era, is notable. It foresaw the Geographic Service and linked it to the Ministry of War. Designed by Rui Barbosa, the concern was to organize the system of royal rights and the properties. However, this project was not put into practice<sup>3</sup>.

The production of maps was intended to increase the understanding of the territory and enable the development of governmental actions that could make human settlement viable. The combat of drought

in the great Brazilian sertão<sup>4</sup> is a good example. The creation of the Inspectorate of Works Against Drought (IOCS)<sup>5</sup> in 1909, is the first legal framework that made it possible to carry out works to mitigate the effects of drought. It is important to note that at this time, the concept of the “Northeast” as a region did not exist; the concern was about the “effects of the droughts that plague some states in the North of Brazil”.<sup>6</sup>

If the government’s concern was initiate objective elements to represent the territory and combat regional asymmetries, entrepreneurs began to project the geography of their businesses. One regional example was industrial icon Delmiro Gouveia’s aim to harness the power of the waters of the Paulo Afonso waterfall in 1913 by building a hydroelectric plant. He headed the creation of a mixed capital company and acquired the lands on the Alagoas side of the margins of the Paulo Afonso waterfall, and later incorporated them into the private domain. Next, he obtained the concession to generate electricity and a tax exemption for his sewing thread factory. This made the Angiquinho plant viable, the first hydroelectric plant taking advantage of the strength of the waters of the ‘Velho Chico’, as the river was nicknamed.<sup>7</sup>

In 1919, the Federal Inspectorate of Works Against Drought (IFOCS) took over the IOCS’ functions and performed systematic studies of the meteorological, geological, hydrometric, and topographic conditions of the drought-prone region. This research was more precise about the region in question as it listed the states covered<sup>8</sup> and moved away from the concept of the “North region”.

Although the search for an official Geography and the fight against drought had always permeated rich discussions in the Old Republic<sup>9</sup>, these concepts would only be structured in President Getúlio Vargas’ administration. The 1934 Federal Constitution was the first to raise concerns about combating drought and in art.177 it provided that the Union should protect the northern states. The legislation<sup>10</sup> defined a polygonal area, as shown below.<sup>11</sup>



Figure 1 - The drought polygon based on the 1934 Federal Constitution. Source: Google Earth

Despite the legislation referring to the area as the “North”, it can be said that the polygonal area, which would become known as the “Drought Polygon”, represents a legal recognition that the area deserved to be treated homogeneously and distinctly from the areas outside the polygon. If previously the “North” region’s movement was centrally located in the state capitals and obeyed the federative logic, from this point there was a basis for a delimited regional development that did not coincide with the area of the states. The concept of state territory was replaced by a regional one, thus requiring improvements in map production and how the economic engine of this regionality would be identified. that, ultimately, would shape the morphology of what would come to be called the Brazilian Northeast as a geo-economic region.

## THE ESTADO NOVO (1937-1945), AN AUTONOMOUS IBGE AND THE CREATION OF CHESF AS THE BASIS FOR THE NORTHEASTERN REGIONAL DEVELOPMENT MODEL

During this period, the regionalization of territories became essential for the proper functioning of Brazil's politics and economic development (BALBIM; CONTEL, 2013. p. 39). There was an intense institutional construction that can be summarized by the implementation of the National Statistics Council in 1936<sup>12</sup>, and the National Council of Geography in 1937<sup>13</sup>, which triggered the formation of the Brazilian Institute of Geography and Statistics (IBGE) in 1938<sup>14</sup>. The Estado Novo Geographic Law<sup>15</sup> was the legal instrument for dealing with territorial organization and its central mission was to promote the uniform delimitation of territorial circumscription, focused mainly on the municipalities.

Although the Estado Novo Geographic Law did not specifically deal with regionalization, in 1938 the National Statistics Council adopted the regional division being used by the Ministry of Agriculture, which organized the Northeast into the states of Ceará, Rio Grande do Norte, Paraíba, Pernambuco, and Alagoas<sup>16</sup>. In an excellent summary, Magnago (1995, p. 68 ff.) shows that subsequently, the Secretariat of the Presidency of the Republic<sup>17</sup> determined that the regional division defined by the IBGE, which became known as the 1942 Regional Division, be adopted in all federal ministries. Furthermore, in this process of conceptual construction, permeated by several constitutional changes in the federative composition between 1943 and 1946<sup>18</sup>, the Northeast region was defined with two subgroups, namely: the Western Group, composed of the states of Maranhão and Piauí; and the Eastern Group, which included the states of Ceará, Rio Grande do Norte, Paraíba, Pernambuco, and Alagoas, as well as the territory of Fernando de Noronha<sup>19</sup>. The states of Sergipe and Bahia belonged to the Eastern region.

At an official level, under the aegis of the IBGE, the regionalization of the country was taking its first steps, however, new economic agents also promoted important transformations that should be revisited, to merge the IBGE's eminently geographical vision with the regional administrative frameworks that were created to provide territorial cohesion to the region called Northeast by Geography. In the week before his removal from the government in 1945, and the resulting end of the Estado Novo, Vargas issued decree-laws<sup>20</sup>, outlining the normative embryo of regional development in Brazil, which would continue until the 1964 Military Regime.

It is soon evident that the creation of the Hydro-Electric Company of the São Francisco River (Chesf) was the initial development vector. The reality of this undertaking's provision of electric energy projected the river valley into the national scenario (SENRA, 1954, p. 82). Its viability produced a certain pride about the supply of electricity to Salvador, which initially was the only capital that was able to receive electric power due to the absence of transmission lines to other regions (SANTOS, 1987, p. 24). This sense of achievement extended to the development of the São Francisco River region, which had "an irrefutable vocation for industrialization" (SEREBRENICK, 1960, p. 267) due to the abundance of electricity.

On the other hand, it seemed inevitable that the solution that rested on the water-irrigation binomial developed by DNOCS could only benefit one percent of the semiarid area (STERNBERG, 1951, p. 339). Despite the humanitarian nature of the policies, there was no resolution of the fundamental problems, the root of the deviations and malpractices, which were aptly expressed in a popular phrase at the time, "the drought industry" (MELO, 1963, P. 328).

Following re-democratization, the Transitional Provisions of the 1946 Federal Constitution and the political weight of the states involved in the Drought Polygon, required that, within twenty years, a plan be created and executed to fully exploit the economic possibilities of the São Francisco River and its tributaries, with an annual investment of not less than one percent of its tax income<sup>21</sup>.

Two central structures were established under this premise. The first was the São Francisco Valley Commission (CVSF), to carry out a general plan for the use of the river valley mentioned above: (i) to regulate its river courses; (ii) to improve the distribution of its waters; (iii) to use its hydroelectric potential; (iv) to encourage industry and agriculture; (v) to develop irrigation; (vi) to modernize its transport; (vii) to increase immigration and colonization, and (viii) assist in the exploration of its wealth<sup>22</sup>. Thus, energy and regional development should go hand in hand, allowing this economic and financial



anchor to enable the diversification of society's activities<sup>23</sup>. Equally important was the action of the Banco do Nordeste do Brasil (BNB), which formed the financial apparatus to enable the population's access to credit. It was intended only for those individuals or companies that were established in the Drought Polygon or that had activities in the area.

These initiatives sought to reduce the stark scenario of constant economic and social inequality in Brazil at that time, which could be measured by the generation of electricity. In 1952, the Northeast region (as referred to in the 1942 Regional Division) only generated 20% of all national electricity (EXÉRCITO, 1977. p. 38)<sup>24</sup>. Nevertheless, the institutional mechanisms focused on regional development were not successful in reversing the increase in inequality. In 1948 per capita income in the northeast was 37.3% of that in the Center-South, by 1956 it had dropped to 32%. According to data on real production, the growth rate in the Northeast corresponded to just over half of that observed in the Center-South. Projecting this trend in the future, it was concluded that, in 1970, the per capita income in the Northeast would only be 118 dollars, while in the Center-South it would reach 440 dollars (KUBITSCHER, 1959, p. 228).

Standard	Object	Main geographical effects
<b>Decree-Law no. 8,031, of 10/3/1945</b>	Created the São Francisco River Hydro-Electric Company (Chesf). <sup>1</sup>	The electric energy produced was intended to supply high voltage electricity to public service concessionaires in the area, within a circumference of four hundred and fifty km (450) in radius (art.2). It created Chesf's preemptive right to exploit the hydroelectric power required in the São Francisco River basin (art.11, sole paragraph).
<b>Decree-Law no. 8,486 of 12/28/1945</b>	Created the National Department of Drought Prevention Works - DNOCS	It respected the geography created by the 1934 Federal Constitution and subdivided the area into operating districts (art.4), with the First District covering the States of Ceará and Piauí; the Second District, the States of Paraíba and Rio Grande do Norte; the Third District, the States of Pernambuco and Alagoas; and the Fourth District, the States of Bahia and Sergipe.
<b>Federal Constitution of 1946</b>	Set a 20-year deadline to finalize the use of the São Francisco River.	Article 29 of the Transitional Constitutional Provisions Act, created an obligation, that within twenty years, a plan be created and executed to fully exploit the economic possibilities of the São Francisco River and its tributaries, with an annual investment of not less than one percent of its tax income.
<b>Law no. 541 of 12/15/1948</b>	Created the São Francisco Valley Commission (CVSF).	Created the general plan for the use of the São Francisco Valley, which aimed to regularize the river courses, distribute its waters better, use its hydroelectric potential, promote industry and agriculture, develop irrigation, modernize its transport, increase immigration and colonization, and assist in the exploitation of its wealth (art.7).
<b>Law no. 1,649, of 7/19/1952</b>	Created the Banco do Nordeste do Brasil (BNB).	The BNB would have a branch in each state in the Drought Polygon ( art.3 §1) and was forbidden to grant loans to individuals or legal entities that were not established in the Drought Polygon or that did not have activities in the area (art.24).
<b>Law no. 3,692, 12/15/1959</b>	Created the Superintendency for the Development of the Northeast (Sudene).	The first official definition of the concept of the Northeast as we know it today.

Table 1 - Synoptic table of the legal basis for northeastern regional development between 1945 and 1964.

After the 1958 drought, President Kubitschek, aware that there was a lack of harmony and cooperation between the CVSF and Chesf (SEREBRENICK, 1963, p. 100), created yet another institution, the Superintendence for the Development of the Northeast (Sudene)<sup>26</sup>. This institutional solution resulted from the Working Group for Northeast Development (GTDN)<sup>27</sup>. In 1960, the country's new capital, Brasília, was inaugurated. The springs of the three large Brazilian hydrographic basins were located within the Federal District polygon, symbolically tying the Center-South to the Northeast and Amazon regions.

The creation of the Sudene, as an attempt to equalize the institutional balance of Brazilian regional development, definitely changed Brazilian Political Geography. The broadest innovation defined Sudene's area of action, creating a Northeast different from the area established in the 1942 Regional Division. In effect, Sudene's Northeast was comprised not only the Northeast itself or the Eastern Northeast and the Mid-North or Western Northeast but also included the state of Sergipe and the

entire state of Bahia (MELO, 1962, p. 506).

From a legal perspective, Sudene modeled the limits of what we now understand as the Northeast region, as well as its master plans<sup>28</sup>. However, electric power, the central economic engine for making these intentions viable, showed that the country was growing faster than the region. In 1963, Chesf<sup>29</sup> produced around 2.6% of the total national electricity output<sup>30</sup>, a situation that indicates, at best, that its feasibility accompanied the increase in production that occurred in other parts of the country. There was no dialogue between the CVSF and DNOCS (SEREBRENICK, 1965, p. 114)<sup>31</sup> displaying the inefficiency of the institutional model.

Brazil's economic axis was changing markedly. The 1960 Census recorded São Paulo as the country's largest city for the first time, whereas in the 1872 Census it was not even among the twenty largest cities; its population was lower than São Luís. Belo Horizonte, founded in 1898, overtook the population of Salvador, the capital of the colonial period. Brasília, founded in the year of the 1960 Census, already had a population similar to that of João Pessoa and was growing rapidly. The Southern region<sup>32</sup> and the East<sup>33</sup> consolidated their respective development models, thus imposing the need for a regional remodeling of the country to express this new reality.

## THE 1964 MILITARY REGIME AND THE EFFECTS OF REGIONALIZATION BY DECREE

The 1964 Regime sought to reframe the various regional initiatives in the Northeast, to reverse the mix of institutional roles between Chesf, DNOCS, CVSF, and Sudene. To this end, Sudene's functions were reviewed in 1965<sup>34</sup>, the CVSF was extinguished and the São Francisco Valley Superintendence (Suvale) was created<sup>35</sup>. The main change was the promotion of a hierarchical relationship between Sudene and Suvale, in which Suvale adopted the guidelines established by Sudene concerning the plans, programs, and projects that it must carry out in the São Francisco basin. Similarly, Chesf's role was clarified since the norm no longer provided for Suvale's use of energy. Instead, the provisions were for the use of natural resources in a broad sense and the discipline regarding the use of the waters of the São Francisco River and its tributaries, in particular, must comply with Sudene guidelines.

The governance of official Geography underwent an enormous transformation, focused on the legal nature of IBGE. The institution of the Brazilian Institute of Geography and Statistics Foundation (IBGE Foundation) was authorized concurrently with the extinction of the Brazilian Institute of Geography and Statistics (IBGE), the autarchy created by Getúlio Vargas, and of all the bodies included in it<sup>36</sup>. In practice, the acronym IBGE was maintained, but it ceased to be a body that legally regulated territories and became primarily a foundation that gathers economic and social data (UGEDA, 2017, p. 192 and ss). Thus, until 1967, IBGE had eight presidents, of whom six were jurists. By 2020, the IBGE Foundation had had sixteen presidents, eleven of these were trained economists.

The Military Regime also established the Guidelines and Bases for Brazilian Cartography<sup>37</sup>, creating the single National Cartographic System (SCN), which was subject to the discipline of normative plans and instruments. Additionally, the regime put in place the Cartography Commission (Cocar), an organ of the IBGE Foundation responsible for coordinating the execution of the National Cartographic Policy, the National Statistics Plan, and the National Terrestrial Geography and Cartography Plan<sup>38</sup>, linking them to the Ministry of Planning and Economic Coordination.

In 1970, a new Regional Division of Brazil was formed for statistical purposes, which is still in force today<sup>39</sup>. Currently, the Northeast region is composed of the states of Maranhão, Piauí, Ceará, Rio Grande do Norte, Paraíba, Pernambuco, Alagoas, Sergipe, and Bahia, as well as the Fernando de Noronha territory<sup>40</sup>. As the IBGE lost its autonomy in 1967, a presidential act was required to give its studies an official character.

The decades that followed realigned the activities and the expansion of the Chesf hydroelectric park, together with yet another restructuring of regional development companies. In addition to the conception of regional economic models<sup>41</sup>, in 1974 the São Francisco Valley Development Company (Codevasf) was created<sup>42</sup>, replacing Suvale under the legal regime of a public company. Losing its correlation with its origins at CVSF and the hydroelectric use of the São Francisco River, its activities

became focused on agricultural, agricultural and agro-industrial issues. The biggest innovation in its functions, over time, was the expansion of its area of territorial activity<sup>43</sup>.

Codevasf now covered a total area of 640,000 km<sup>2</sup> with a different geography: the states of Sergipe, Alagoas, Pernambuco, Bahia, Minas Gerais, Goiás, and the Distrito Federal. For planning purposes, the area was subdivided into the low, lower-middle, middle, upper-middle, and upper São Francisco. In the rest of the Northeast, DNOCS encompassed an area of 950,000 km<sup>2</sup>, comprising the states of Pernambuco, Piauí, Ceará, Rio Grande do Norte, Paraíba, Alagoas, and Sergipe. This area corresponds to 58% of the Northeast region, in 1985 this included 1,024 municipalities, characterized by semiarid and periodic droughts (CABREIRA, 1989, p. 92).

Standard	Object	Main effects for Geography
<b>Law no. 4,869 of 01/ 12/1965</b>	Restructured the Northeast Development Superintendence (Sudene).	Established Sudene's central competence to organize northeastern regional development.
<b>Decree-Law no. 292, 2/28/1967</b>	Created the São Francisco Valley Superintendence (Suvale).	As an autarchy linked to the Ministry of National Integration, it extinguished the CVSF and distanced this structure from the electricity sector and stipulated that it must adopt Sudene's guidelines.
<b>Decree-Law no. 161, 2/13/1967</b>	Created the IBGE Foundation and extinguished the municipal IBGE.	Removed the IBGE's capacity to regulate the territory, instead, it was only responsible for making economic, social, and statistical surveys.
<b>Decree-Law no. 243, 2/28/1967</b>	Established the National Cartographic System (SCN) and the Cartography Commission (Cocar).	Created the National Cartographic Policy, the Cartography Commission (Cocar), the National Statistics Plan, and the National Geography Plan.
<b>Decree no. 67,647, of 11/23/1970</b>	Established the current Regional Division of Brazil for statistical purposes.	It established the current composition of the Brazilian Northeast, with the states of Maranhão, Piauí, Ceará, Rio Grande do Norte, Paraíba, Pernambuco, Alagoas, Sergipe and Bahia.
<b>Law no. 6,088, of 7/16/1974</b>	Created the Vale do São Francisco Development Company (Codevasf).	It succeeded Suvale and obtained a specific geographical area, managing the São Francisco basin to the south and maintaining DNOCS' management of the north. See <b>Decree nº 74.744, from 1974</b> and <b>Decree No. 3,604, of 2000</b> .
<b>Decree no. 74,794, of 10/30/1974</b>	Provides for the creation of the Program for the Development of Integrated Areas of the Northeast (POLONORDESTE).	It promoted the development and modernization of the economy in areas considered to be priorities, due to the potential they had with an integrated approach to rural development.

Table 2 - Synoptic table of the legal basis for northeastern regional development between 1964 and 1988

In turn, the Chesf was increasingly charged with exploring the hydroelectric potential of the São Francisco River. Numerous technological and economic studies demonstrate the importance of building the Paulo Afonso I, II, III, IV, and Xingó plants, as well as the 18 thousand kilometers of transmission lines that carry the electricity generated. Under the premise of regional development, Chesf's headquarters were transferred from Rio de Janeiro to Recife in 1974, after a fierce dispute with Salvador.

Although the regional developmental model achieved important energy advances and assisted the development of irrigation, the lack of a break with the traditional model of the Northeastern industry meant that the practical results for the local society were limited. There was a dissociation between the hydroelectric industry and the Region's traditional primary activities so that agriculture remained tied to the old industries, which faced a chronic crisis (CHMATALIK et al, 1987, p. 50). This resulted in a limited benefit of the abundant energy produced in the region.

## THE 1988 RE-DEMOCRATIZATION, MATOPIBA AND THE NEED FOR NEW REGIONAL PARAMETERS

The 1988 Federal Constitution marked the resumption of democracy in the country. Among all the renegotiation that the country went through at that time, the constitutionalizing of the concept of the Northeast and semi-arid regions is evident. This rendered any future alterations of this regional



perspective practically unfeasible, except in the case of constitutional reform.

As an example, to supply financial resources for the development of the less well-off regions, the Federal Government started to give three percent of the proceeds of federal taxes, that is, on income and earnings of any kind, and 49% on industrialized products, to finance programs for the productive sector of the North, Northeast and Midwest Regions, through their regional financial institutions, following regional development plans. Half of the resources earmarked for the regions were guaranteed to the semi-arid region of the Northeast, as established by law<sup>44</sup>. The Transitional Constitutional Provisions Act also made provisions that granted large revenues to the region<sup>45</sup>.

With the allocation of these resources, a graphic legal definition of the area was needed, under the guidance of sectorial public policy. Article 21, XV, of the Federal Constitution, states that the Union should legislate on official Geography and Cartography, however, this has never been regulated. The Cartography Commission (Cocar), from 1967, was rendered inoperative by the Collor government and was subsequently precariously restored in the Itamar administration since it created the National Cartography Commission (Concar) through an unnumbered decree<sup>46</sup>, which means it could easily be overturned.

Regional development legislation after the Federal Constitution of 1988 was equally precarious. Decrees were the instrument chosen to govern regional development without the need to pass through the National Congress. This option was preferred both by the Fernando Henrique Cardoso and the Lula governments (Decrees no. 1,741 / 1995 and 4,793 / 2003, respectively). Concerning the Northeast, Complementary Law no. 125, from 2007, was a turning point in Sudene's management, as it acquired a specific legal authority to act to combat spatial inequalities.

Standard	Object	Main effects for Geography
<b>Decree no. 1,741, of 8/12/1995</b>	Provided for the organization and functioning of the Regional Policy Chamber.	The Regional Policy Chamber, part of the Government Council, aimed to coordinate sectoral policies with regional impact, to reduce inter and intraregional inequalities. <b>Repealed by Decree No. 4,793, dated 7/23/2003.</b>
<b>Decree no. 4,793, of 7/23/2003</b>	Created the Chamber of Policies for National Integration and Regional Development, of the Government Council.	It was an advance compared to prior legislation but focused mainly on the Amazon region and the BR-163 highway. Its effectiveness was low as it did not reach goals like the paving of the BR-163. <b>Repealed by Decree No. 9,810, 2019.</b>
<b>Complementary Law no. 125, of 3/1/2007</b>	Article 43 of the Federal Constitution instituted the Northeast Development Superintendence - Sudene; it established its composition, legal nature, objectives, areas of operation, and action instruments.	It defined its area as all states in the Northeast and municipalities in the north of the state of Minas Gerais. It provided for the creation of a four-year Northeast Regional Development Plan to reduce spatial and interpersonal income inequalities, as well as the Northeast Development Fund, which should ensure resources for this purpose.
<b>Decree no. 6,047, of 2/22/2007</b>	Instituted the National Policy for Regional Development - PNDR.	It brought advances that enabled the creation of Matopiba, based on art.3 §1, which provided that the Ministry of National Integration, through an ordinance, could define territorial limits for Differentiated Mesoregions and other sub-regional spaces. <b>Repealed by Decree No. 9,810, 2019.</b>
<b>Law no. 13,844, 6/18/2019</b>	Established the basic organization of the organs of the Presidency of the Republic and the Ministry of Regional Development.	It conferred ministerial status to Regional Development, encompassing issues related to National Integration and the former Ministry of Cities.
<b>Decree no. 9,810, 5/30/2019</b>	Institutes the National Policy for Regional Development (PNDR).	Created a National Policy to be governed by the Ministry of Regional Development. If, on the one hand, the creation of the Ministry of Regional Development strengthens the Brazilian regional process, on the other hand, its effectiveness has not yet been proven in the sense of producing spatial transformation. It allows operations on a subregional geographic scale corresponding to the territorial profile in PNDR priority areas, established to coordinate state action, to reduce intra-regional inequalities (art.5, II).

Table 3 - Basic legislation for Brazilian regional development after the 1988 Federal Constitution



In 2008, a decree was published to create the National Spatial Data Infrastructure (INDE)<sup>47</sup>, which, despite its inefficiency, sought to change the paradigm of Brazilian Geography and Cartography, transforming it into an infrastructural sector. However, the INDE has not yet reached its full potential, as the decree has no legal support, so that “maps” in Brazil are still products acquired through tenders.

They are the intellectual property of the contractor, and hence not part of a spatial data infrastructure that can be shared with society as a whole to avoid wasting resources in the acquisition of the same “map” by two or more entities.

This situation was aggravated by the fact that the geographic and cartographic system in Brazil has not had any public management since April 2019. The Bolsonaro government issued a legal act<sup>48</sup> which extinguished several councils, committees, and commissions that had been created by decree. Although Concar was not named specifically, intentionally or not, the body was extinguished.

In contrast, the Ministry of Regional Development was created, which may do much to advance the issue, including the creation of a National Regional Development Policy (PNDR) in May 2019. This legal construction has the potential to foster important changes to strengthen the Northeast region in the coming years. If, on the one hand, the popular imagination tends to disseminate and identify the region as the cradle of the “drought industry”, given the level of inefficiency of public policies developed in the face of the perceived resources, including those related to the transposition of the São Francisco River<sup>49</sup>, there is a sectoral construction that suggests the possibility of invigorated regional development coming from the western Northeast under a different governmental structure: the Matopiba.

This acronym is formed by the initials of the states of Maranhão, Tocantins, Piauí, and Bahia, and its geography was delimited through an agreement between Embrapa and Incra (MIRANDA et al, 2014, p. 9)<sup>50</sup>.

The first criterion of this geographical delimitation was based on the cerrados existing in the Matopiba States, established by satellite images and other information regarding the natural and anthropized environment of these areas.

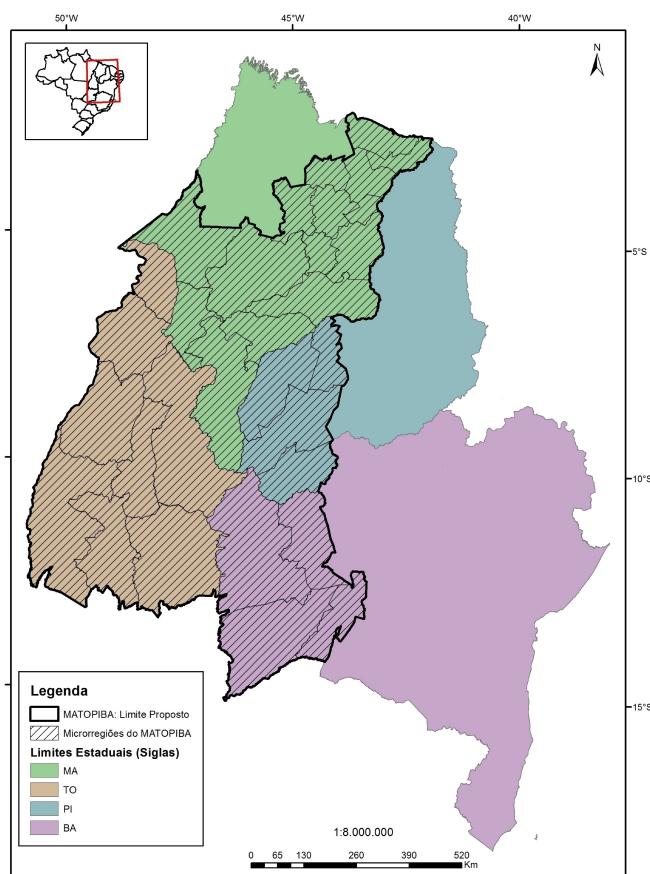


Figure 2 - Territorial delimitation of Matopiba by Embrapa, including the IBGE 31 micro-regions.

Source: Miranda, 2014.

The second main territorial criterion was the socioeconomic dimension, principally the data related to agricultural and forestry production in the IBGE's annual surveys, which concluded that thirty-one geographic micro-regions whose cartographic borders have been relatively stable over time form a new homogeneous area. The use of seeds through agriculture is bringing new economic signals to regional development, fifty-five years after the creation of Chesf.

The rich economic and social changes that occurred in the geography of Matopiba are evident in several studies that highlight demographic, statistical, financial, and labor conditions<sup>51</sup>. Nevertheless, it is noteworthy that although from a political and legal perspective, there is a clear absence of an official Geography and Cartography, to the detriment of society as there is no reliable, good quality public and open spatial data with interoperability, the country has started to adopt the theme of regional development at the ministerial level. This situation has brought legal certainty to the revitalization of national regionalities. In particular, the Matopiba will be able to transform the concept of the Northeast and contribute to setting a great example for other regions of the country.

## CONCLUSIONS

The Northeast is a concept that is crystallized in the unconscious of the Brazilian population, which designates an important geographical portion of the national territory. This concept involves a complex and tortuous institutional, political, and even, constitutional construction, which apportions a significant volume of resources from which the population does not perceive a concrete return. On a national level, there is a perception of the allocation of large volumes of scarce resources without objective results. Locally there is a sense of abandonment as these resources do not reach the population.

The regional construction of Matopiba shows an alternative path, based on concrete solutions that bring financial resources to the foundation of the system: the rural property. Despite several apparent externalities, such as the mitigation of effects on the cerrado biome, it is perhaps the first time in decades that Northeastern regional development has a new fact that signals the insertion of resources without the state ties resulting from the Drought Polygon's public policies.

As the Matopiba polygon is spatially limited to the west of the Northeast region and since it respects the logic of the cerrado biome without including areas in the semi-arid region if analyzed under a regional development bias its institutional and agricultural logic provides overwhelming benefits to the local populations. The transposition of the São Francisco River takes water resources to the sertão that can begin to benefit from the new generations of seeds and a productive system that in the next decades, has everything to resignify the concept of the Brazilian Northeast itself.

## NOTE

1- There are records of the passage of the navigator Américo Vespúcio, who gave his name to the continent, along the São Francisco River in 1501. In 1576, Pero de Magalhães Gândavo, when exploring the river, described the virtues of this geographical accident. In 1587, Gabriel Soares de Souza (SOARES DE SOUZA, 1587) a Portuguese businessman who was looking for wealth in the northeastern sertão during the period of the Iberian Union, reported that it was possible to navigate the river in caravels as far as the waterfall, which "is made of living stone". There was a lot of brazilwood, which could be carried with little effort. In 1649, the waterfall was depicted by the Dutch painter Frans Post. Dom Pedro II was the first authority to visit the site, on 10/20/1859, a moment that was reported by Castro Alves. The Bahian poet and lawyer even wrote several poems about the waterfall, the most famous being A Cachoeira de Paulo Afonso, an integral part of the work *Os escravos*, in 1876 (ALVES, 1944, p. 219).

2- See Decree no. 451-A, 05/31/1890.

3- See Decree no. 2067, of 08/08/1895, which expressly recognized that the Geographic Service

had not been implemented.

4- Translator's note: Vast semi-arid region in the Northeast of Brazil

5- See Decree no. 7,619, of 10/21/1909.

6- Pursuant to art.1 of the Regulation of Decree no. 7,619, of 10/21/1909.

7- In 1921, during the government of President Epitácio Pessoa, the Federal Inspectorate of Ports, Rivers and Channels created the Paulo Afonso Waterfall Studies Commission and carried out the first topographic survey of the region. After this analysis, more than 20 years went by without major changes on the topic.

8- Ceará, Rio Grande do Norte, Paraíba, Piauí, Pernambuco, Alagoas, Sergipe, Bahia and in the north of Minas Gerais.

9- It is important to note that President Washington Luís had a fruitful experience, as governor of São Paulo, in fixing borders with his neighboring states.

10- See art.2. of Law no. 175, 1/7/1936.

11- According to the legislation, the vertices were in the cities of Aracati, Acaraú and Camocim in Ceará; the intersection of the 44° W. meridian with the 9° parallel; the intersection of the same meridian with the 11th parallel and the city of Amargosa, in the State of Bahia; the city of Traipu in the state of Alagoas; the city of Caruaru, in the State of Pernambuco; the city of Campina Grande, in the State of Paraíba; and the city of Natal, in the state of Rio Grande do Norte.

12- See Decree no. 1,200, dated 11/17/1936, which regulates the constitution and functioning of the National Statistics Council created by Decree no. 24,609, of 6/7/1934.

13- See Decree no. 1,527, dated 3/24/1937, which instituted the Brazilian Council of Geography incorporated into the National Institute of Statistics and authorized its accession to the International Geographic Union.

14- See Decree-Law no. 218, of 1/26/1938, which designated that the National Statistics Institute became known as the Brazilian Institute of Geography and Statistics, with both its collegiate governing bodies - Geography and Statistics - having the name "National Council".

15- See Decree-Law no. 311, of 2/3/1938, known as the New State Geographic Law.

16- The other regions were composed as follows: (i) North: Acre, Amazonas, Pará, Maranhão and Piauí; (ii) East: Sergipe, Bahia and Espírito Santo; (iii) South: Rio de Janeiro, Federal District, São Paulo, Paraná, Santa Catarina and Rio Grande do Sul; and (iv) Center: Mato Grosso, Goiás and Minas Gerais.

17- Through Circular no. 1, 1/31/1942.

18- The creation of federal territories: that of Fernando de Noronha (1942), included in the Northeast Region; Guaporé, Rio Branco and Amapá (1943), included in the North Region; Iguaçu (1943), included in the South Region; and Ponta Porã (1943), included in the Midwest Region. The second change occurred in 1946, with the extinction of the Federal Territories of Iguaçu and Ponta Porã.

19- The other regions were composed as follows: (i) North Region: States of Amazonas and Pará, as well as the Territories of Acre, Amapá, Rio Branco (Roraima) and Guaporé (Rondônia); (ii) Eastern Region: subdivided between Northern, with the States of Sergipe and Bahia; and Meridional, with the States of Minas Gerais, Espírito Santo, Rio de Janeiro and the Federal District (since 1960, transformed into the State of Guanabara); (iii) South Region: States of São Paulo, Paraná, Santa Catarina and Rio Grande do Sul; and (iv) Midwest Region the States of Mato Grosso and Goiás (from 1960, the Federal District, and what we know as the state of Tocantins was Goiás).

20- They are decrees with the force of law, a typical instrument of states of exception in Brazil. See Table 1

21- See art.29 of the Transitional Constitutional Provisions Act of the 1946 Federal Constitution.

22- See Law no. 541, of 12/15/1948.

23- Art. 11, in turn, created the possibility for CVSF to generate electricity and forced Chesf to coordinate its projects with CVSF. With the political instability of that period, which culminated in



Vargas's removal from the presidency of the Republic, the first general shareholders meeting was only held on March 15, 1948.

24- "The engineer Alves de Souza, who visited Paulo Afonso in 1921 to try the first locations, returned, in 1948 as the president of the São Francisco Hydro-Electric Company (Chesf), for the first attempt to conquer the great waterfalls; initiating a successful team work. In December 1952, however, if a new cut was made in the Brazilian reality, the accentuated regional imbalance remained evident. Of the national total of 1,975,000 kW of installed power, 1,320,900 kW were in Rio and São Paulo and 255,870 in Minas Gerais, thus bringing the total of these three territorial units to 1,576,770. The rest of the country only accounted for 398,230 kW, which were disproportionately distributed: 104,000 in Rio Grande do Sul, 276,780 in the North, Northeast, East, Center-West, and Paraná and Santa Catarina" (EXERCITO, 1977. p. 38).

25- Regulated by Decree no. 19,706, dated 10/3/1945, which granted a 50-year concession of the hydraulic power of the São Francisco River between Juazeiro, State of Bahia, and Piranhas, State of Alagoas.

26- See Law no. 3,692, of 12/15/1959.

27- It aimed at industrialization as an import substitution model.

28- See article 39 of Law no. 4,239, 6/27/1963, which approved the Northeast Development Master Plan for the years 1963, 1964 and 1965, and considered the region covered by the States of Maranhão, Piauí, Ceará, Rio Grande do Norte, Paraíba as the Northeast, Pernambuco, Alagoas, Sergipe, Bahia, area of the State of Minas Gerais located in the Drought Polygon; and by the Territory of Fernando de Noronha. See regulation by Decree no. 55,858, of 1965; Decree no. 57,148, from 1965; Decree no. 64,214, 1969; and Decree no. 1,041, 1994.

29- With the restructuring of the electricity sector in the 1960s, Chesf became a subsidiary of Eletrobras, linked to the Ministry of Mines and Energy.

30- The total generation produced in Brazil was 49,942,772 kWh, with Chesf producing 1,374,613 kWh (MAGALHÃES, J. 1969, p. 36).

31- "(...) during its 12 years of existence, the only body with which the CVSF has never managed to conclude even an agreement, or at least informal cooperation, was the Department of Works Against Drought, precisely the agency with which the CVSF had the most affinity within the region. This proves that these two bodies should not operate simultaneously in the same area." (SEREBRENICK, 1965, p. 114).

32- States of Rio Grande do Sul, Santa Catarina, Paraná and São Paulo.

33- States of Rio de Janeiro, Minas Gerais, Espírito Santo, Bahia, Sergipe and Guanabara district.

34- See Law no. 4,869 of 1 / 12/1965.

35- See Decree-Law no. 292, 2/28/1967.

36- See art.32 of the same Decree-Law no. 161, of 2/13/1967.

37- See Decree-Law no. 243, 2/28/1967.

38- See Decree-Law no. 161, of February 13, 1967, as amended by Law no. 5,804, of 10/3/1972.

39- See Decree no. 67,647 of 11/23 /1970.

40- The other regions were composed as follows: (i) North Region, by the states of Acre, Amazonas and Pará; Rondônia, Roraima and Amapá territories; (ii) Southeast Region, by the states of Minas Gerais, Espírito Santo, Rio de Janeiro, Guanabara and São Paulo; (iii) South Region, by the states of Paraná, Santa Catarina and Rio Grande do Sul; and (iv) Midwest Region, by the states of Goiás (includes Tocantins) and Mato Grosso (includes Mato Grosso do Sul), including the Federal District.

41- PROTERRA was instituted in 1971. Its area of operation, with regard to land redistribution, was quite limited, reaching only a few stretches of Ceará, as well as Agrestes of Paraíba and Pernambuco. In turn, POLONORDESTE was created in 1974, to promote the development and modernization of the economy in areas considered priority, due to their potential; it was characterized by an integrated approach to rural development (BRITO; UNE, 1987, p. 51).

42- See Law no. 6,088, of 7/16/1974.

43- Law no. 9,954, dated 1/6/2000, enabled Codevasf to operate on the Parnaíba River, on the border between the States of Piauí and Maranhão, and Law no. 12,196, of 1/14/2010, caused this agency to also operate in the valleys of the Itapecuru and Mearim rivers, in the State of Maranhão.

44- See Constitutional Amendment no. 55, 2007, art.159, I, “c”, combined with the wording given by Constitutional Amendment no. 84, 2014.

45- See art.42, II; and art.97, § 2, I, “a”.

46- See Decree no. Of 6/21/1994.

47- See Decree no. 6,666, of 11/27/2008.

48- See Decree no. 9,759, of April 11, 2019.

49- See Resolution no. 47, of January 17, 2005, of the National Water Resources Council, which approved the water use of the São Francisco River Integration Project with Hydrographic Basins in the Northeast Northeast.

50- Based on Decree no. 6,047, of 2/22/2007.

51- For more details, for example, see Alves, 2004; Brandão, 2015; Innocent, 2016; and Magalhães, P. 2016

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