

Analysis of the Formulation of the National Biofuels Policy - Renovabio: the Territorial, the Political, and the Economic

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Abstract

Concern over climate change currently occupies a central role, with the staging of world environmental events to discuss the effects of excessive fossil fuel use and their negative impacts on the environment. The Paris Agreement was signed within this perspective, in which Brazil adopted targets for the reconfiguration of its energy matrix and subsequently created the Política Nacional de Biocombustíveis (RenovaBio - National Biofuels Policy), through Law no. 13.576/2017, to reach these targets. As another public policy aimed at encouraging agribusiness, being derived from a strong history of the sugar-energy sector depending on state measures to sustain it, it is important to reflect beyond the formal content of the public policy and observe the interests it seeks to defend. Furthermore, by creating an expansion mechanism for the cultivation of sugarcane, RenovaBio brings territorial and environmental impacts. Thus, the present article aims to analyze the formulation stage of the public policy, to verify the economic and political context that supported the approval of, and subsequent alterations to RenovaBio. Methodologically, the analysis was carried out on three levels: Superficial; Territorial Coverage; and Structural. It was found that there was the formation of a network of actors involved in the process, which demonstrates the existence of power relationships, at times translated through subordination, resource dependence, or political support. These actors were involved in the construction of the text of the Law to favor the group, the approval of the bill in record time, its directed regulation, the relaxation of requirements, and the fixing of high Decarbonization Credit acquisition targets. RenovaBio is extremely promising; however, there are loopholes that need to be resolved and a series of political interferences that hinder the development, transparency, and credibility of the program.

INTRODUCTION

Concern over climate change currently occupies a central role, with the staging of world environmental events to discuss the effects of excessive fossil fuel use and their negative impacts on the environment.

There is global pressure for an increase in biofuel production, as biofuels are marketed as a low-carbon source of energy, with the aim of a reduction in greenhouse gas emissions. Sugarcane is one such alternative given its potential in the production of ethanol and other biofuels (Florini; Sovacool, 2009).

Within this perspective, the Paris Agreement was signed in December 2015 during the United Nations Framework Convention on Climate Change (COP21), at which a universal agreement was approved defining measures for the energy matrix reconfiguration of the signatory countries.

Brazil took on a voluntary commitment at COP21, with targets to be reached by 2030. These included a 43% reduction in greenhouse gas emissions and a 45% increase in the participation of renewable energies in the national energy matrix, among other targets, which are part of the Nationally Determined Contributions (NDC) (MME, 2017).

To enable the attainment of these targets, Brazil created the RenovaBio, through Law no. 13.576 of December 26, 2017 (Brasil, 2017).

To participate in the RenovaBio program, biofuel producers undergo a voluntary certification process and have to meet the eligibility criteria (MME, 2017). In this process, the inspecting firm, accredited by the Agência Nacional de Petróleo, Gás Natural e Biocombustíveis (ANP - National Agency of Petroleum, Natural Gas and Biofuels in English), evaluates data on the production process and importation of biomass and biofuels, taking into consideration energy efficiency and lifecycle analysis measured by RenovaCalc. The program's calculator measures the carbon intensity and uses the result in the efficiency score, emitting the Certificado da Produção Eficiente de Biocombustíveis (Certificate of Efficient Biofuel Production).

Based on the environmental-energy efficiency score, the producer emits Decarbonization Credits (CBIOS), which are registered by financial institutions in quantities proportional to the volume of biofuel produced. Thereafter, the CBIOS are traded on the stock exchange, with fossil fuel distributors as the main public as they are obliged to acquire the

credits to meet the targets imposed by ANP Resolution no. 802/19 (ANP, 2019).

The entire RenovaBio mechanism is already in operation. The first sugar-energy plant was certified in October 2019, and, by September 2023, 279 plants had obtained their efficient ethanol production certificates from ANP, which represents 75% of all the plants authorized to produce ethanol (ANP, 2023a).

On July 28, 2023, RenovaBio reached the mark of 100 million traded CBIOS. As announced by the Federal Government, this value theoretically corresponds to 100 million tons of carbon dioxide (CO₂) that were not released into the atmosphere as a result of substituting the use of fossil fuels for biofuels (ANP, 2023b).

Thus, RenovaBio is a promising public policy with its initiative centered on evaluating the carbon intensity of each fuel, which has the potential to promote energy efficiency gains in the production and use of biofuels. This is because biofuels with lower associated emission levels can emit a greater number of credits for trading, which functions as an incentive to plants to invest in the environmental improvement of their productive processes.

RenovaBio was created as a public policy constituting the national energy policy with the following objectives:

I – to contribute to the Country's commitments under the Paris Agreement under the United Nations Framework Convention on Climate Change; II – to contribute to the proper relationship between energy efficiency and reduced emissions of greenhouse gases in the production, commercialization, and use of biofuels, including mechanisms for life-cycle assessment; III – to promote proper expansion of the production and use of biofuels in the Brazilian energy matrix, with emphasis on regular fuel supply; and IV – to predictably contribute to the competitive participation of the several biofuels in the domestic fuel market (Brasil, 2017).

Despite not being classified as an environmental public policy, RenovaBio has two objectives linked to the mitigation of greenhouse gases, which emphasizes the environmental nature of the program.

Furthermore, RenovaBio expressly aims to promote the expansion of biofuels, which would consequently entail environmental impacts through the necessary planting of the main raw material, sugarcane.

The sugar-energy sector has a history of depending on State measures to sustain it. Given previous public policies and other movements of the State, Congress, and the

agribusiness sector (which includes sugar-energy), it is necessary to verify the actions that are announced as protective of the environment.

By creating an expansion mechanism for the cultivation of sugarcane, RenovaBio causes territorial and environmental impacts, as the planting of sugarcane is linked to prejudicial changes in land use, deforestation, and loss of biodiversity (Naylor *et al.*, 2007).

Therefore, the present study aims to conduct an analysis of the RenovaBio, at its formulation stage, verifying the economic and political context that provided a basis for its creation and approval.

This article is divided into four sections, being the introduction, the methodological strategy, the discussion of the results subdivided into three levels of analysis, and the final considerations.

METHODOLOGICAL STRATEGY

Howlett *et al.* (2013) understand the political process of creating a public policy as a cycle with five interrelated stages: drawing up an agenda; policy formulation; decision-making; implementation; and evaluation.

The analysis proposed in this study will focus on the policy formulation stage, in which the public problem to be addressed has already been selected and strategies for its resolution shall be

considered. Policy formulation is the stage in which democratic governments translate their proposals and electoral platforms into programs and actions that will produce results or changes in the real world (Souza, 2006).

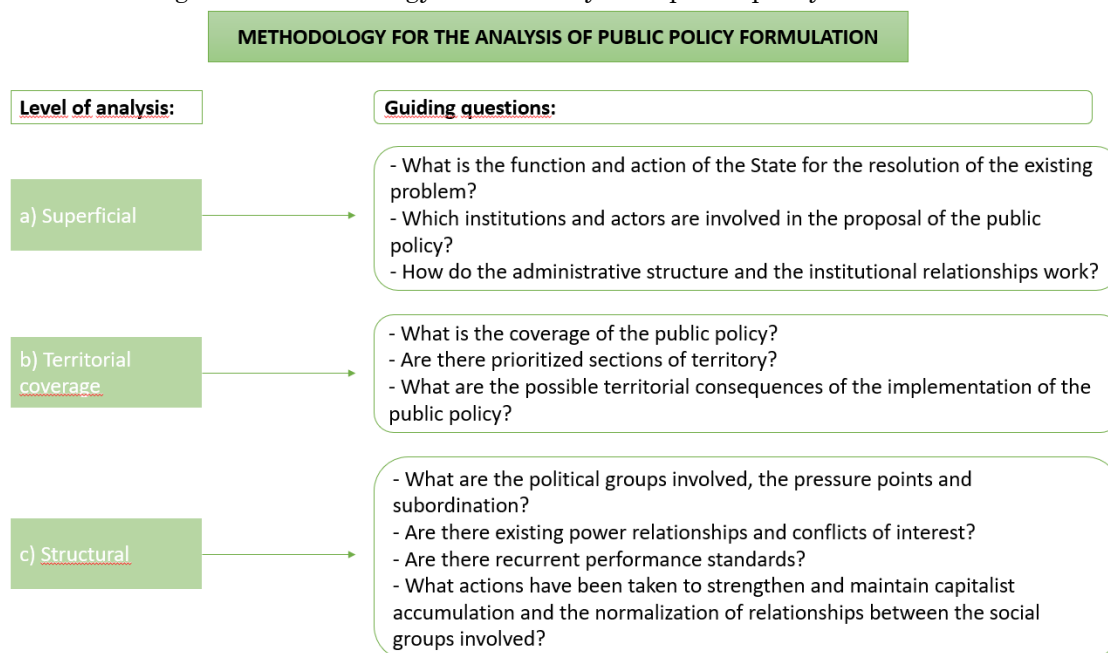
The formulation process, also known as construction, is non-linear. After finalization and implementation, movements are frequently carried out to make adaptations and alterations. In the case of RenovaBio, expressed in a Law from 2017, there are various decrees, ordinances, and subsequent circulars that brought regulations and alterations to the public policy, which are, therefore, part of the formulation stage.

Dagnino *et al.* (2015) propose a public policy analysis methodology called the “Interactive cycle of policy analysis”, based on three levels: Interests of the actors; Appearance or the superficial; and Essence or structural.

Freitas *et al.* (2013), in turn, suggest a public policy analysis methodology split into three spheres: Formal content of the proposed policy; the political game of policymaking; and the spatial-territorial approach.

Based on the hypothesis that there was a relevant “political game of policymaking” in the RenovaBio proposal, the methodology to be used in this study will be based on the two aforementioned proposals, resulting in the following levels of public policy analysis: Superficial; Territorial coverage; and Structural (Figure 1).

Figure 1 - Methodology for the analysis of public policy formulation



Source: The authors (2023).

Policy analysis aims to identify not only the social groups, institutions, and political groupings involved in problems in the public sphere, but also the blocked power disputes and the actions taken to maintain this power. In addition, there is the verification of territorial aspects contained in the policy, based on the supposition that every public policy of an environmental nature has territory as its basis and that its development brings impacts to this sphere (Freitas *et al.* 2013; Dagnino *et al.*, 2015).

The analysis should not be based only on the public policy, but on the entire dynamic that occurs in decision-making, with the aim of identifying the implicit issues (Ham; Hill, 1993).

RenovaBio is a public policy provided for in a legal text. Analysis of the legal documents (Law no. 13.576/2017, Decree no. 9.888/2019, and subsequent alterations) was carried out to perceive the discourse and intentionality therein. In addition, the Explanatory Note on the proposal for the creation of the National Biofuels Policy (MME, 2017), the official sites of the entities involved, news reports, and scientific articles examining themes previously related to this study were also analyzed.

Analysis was also carried out of the files of the contributions sent to public calls and audiences conducted by:

a) Ministério de Minas e Energia (MME - Ministry of Mines and Energy in English): Public Consultation no. 26/2017; Public Consultation no. 46/2018; Public Consultation no. 70/2019; Public Consultation no. 94/2020 (MME, 2020).

b) Agência Nacional de Petróleo e Biocombustíveis (ANP - National Agency of Petroleum and Biofuels in English) -: Public Consultation no. 10/2018; Public Consultation no. 07/2019; Public Consultation no. 23/2019 (ANP, 2022).

ANALYSIS OF THE FORMULATION STAGE OF THE NATIONAL BIOFUELS POLICY

Superficial

Public policies are intimately connected to the resolution of society's problems. They are one of the ways in which Public Power acts, deploying the machinery of government, and they may have a distinct legal basis (Bucci, 2006).

The State thus induces actions and acts through public policies that contain proposals aimed at intervening in determined issues. In

the case of RenovaBio, the commitments taken on at COP21, in 2015, provided the instigation.

The negotiations on RenovaBio began based on a proposal by the Diretoria de Biocombustíveis (Board of Directors for Biofuels) of the MME in 2016, with the RenovaBio – Biocombustíveis 2030 workshop. The MME subsequently carried out Public Consultation no. 26 in 2017 to define the general parameters of the program (MME, 2020).

On August 25, 2017, an Explanatory Note was published on the proposal to create the National Biofuels Policy, functioning as a letter of intent, as it contained all the details of the aims, foundations, and operation of the program (MME, 2017).

The Explanatory Note was prepared by a technical team composed of collaborators from the following institutions: MME; Ministério do Meio Ambiente (MMA - Ministry of the Environment in English); ANP; Empresa Brasileira de Pesquisa Agropecuária (Embrapa - Brazilian Corporation of Agricultural Research in English); Conselho Nacional de Política Energética (CNPE - National Energy Policy Council in English); Instituto Nacional de Ciência e Tecnologia de Estudos sobre os Estados Unidos (INCT-INEU - National Institute of Science and Technology of Studies on the United States in English); Universidade de São Paulo (USP/Esalq - University of São Paulo in English); Universidade de Campinas (Unicamp - University of Campinas in English); Universidade Estadual de São Paulo (Unesp - State University of São Paulo in English); Pontifícia Universidade Católica (PUC/SP - Pontifical Catholic University of São Paulo in English); Laboratório Nacional de Ciência e Tecnologia do Bioetanol (CTBE - National Bioethanol Science and Technology Laboratory in English); and the Agroicone consultancy (MME, 2017).

The Bill for Law no. 9086/2017 with the RenovaBio proposal was presented by federal deputy Evandro Gussi on November 14, 2017. After requesting urgency in the proceeding, the Bill was approved in the Câmara dos Deputados (Chamber of Deputies - Lower House of the National Congress) with three amendments and forwarded to the Senado Federal (Federal Senate - Upper House of the National Congress) (Câmara dos Deputados, 2019). On December 12, 2017, the rapporteur gave their ruling in the Plenary, granting approval with no alteration (Senado, 2017).

A total of 28 days passed from the proposal of the Bill until its approval in both houses of Congress. Law no. 13.576 was sanctioned and

published on December 26, 2017, with regulation by Decree no. 9.888/2019.

Other public consultations were conducted by the MME and ANP with the aim of regulating the program, each with a specific objective (Tables 1 and 2).

Table 1 – Public Consultations of the MME on RenovaBio:

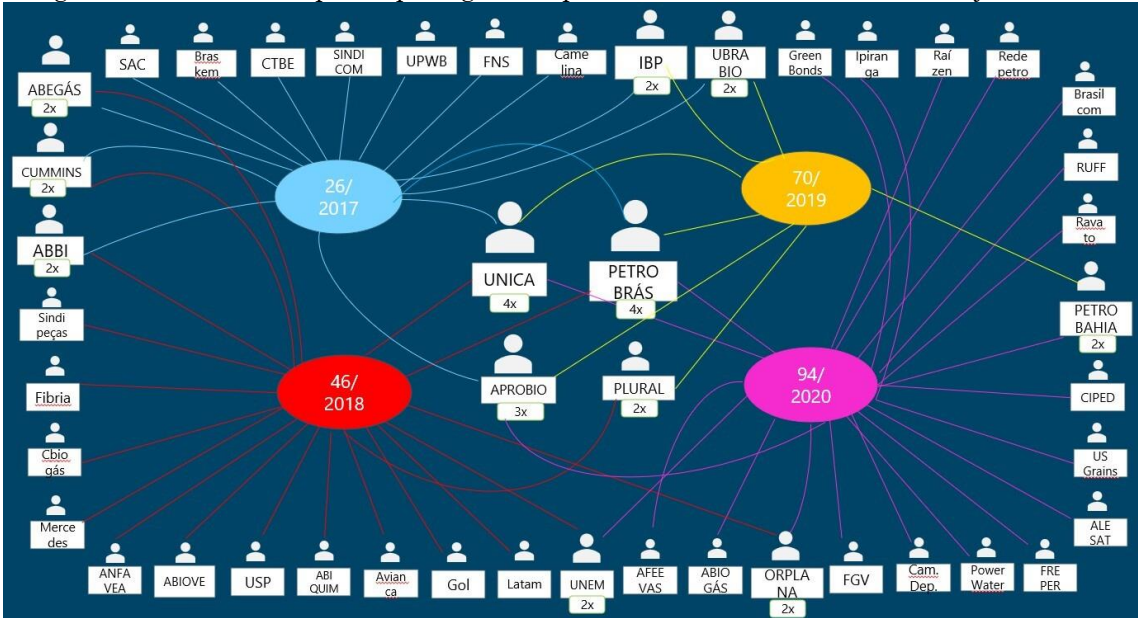
Nº	DATE	OBJECTIVE
26	15/02/2017	Definition of values, objectives, and strategic guidelines.
46	04/05/2018	Definition of the first cycle of decarbonization targets.
70	30/04/2019	Proposal for maximum limits for decarbonization targets for the 2020-2029 cycle.
94	05/06/2020	Proposal for the definition of compulsory annual targets for the reduction of greenhouse gas emissions for the commercialization of fuels and their tolerance intervals.

Source: MME (2020). Elaborated by the authors (2023).

Any public or private entity, private individual or legal entity can participate in a public consultation and send their contribution on the proposed theme. In the public consultations carried out by the MME, there was a predominance of two actors, who participated in all the consultations, União da Indústria de Cana-de-Açúcar e Bioenergia (UNICA - Union of the Sugarcane and Bioenergy Industry) and PETROBRAS, followed by Associação dos Produtores de Biocombustíveis do Brasil (APROBIO - Association of Biofuel Producers of Brazil), with three participations

(Figure 2). These are relevant players in the energy industry in Brazil, APROBIO being an association that nationally represents the biofuels production chain. UNICA is the largest representative organization of the sugar, ethanol, and bioelectricity sector in Brazil, with hundreds of associated sugar-energy power plants. PETROBRAS is one of the largest publicly traded companies that is integrated and specialized in the oil, natural gas, and energy industry. There is a noteworthy lack of participation on the part of public and scientific institutions.

Figure 2 – Institutions participating in the public consultations carried out by the MME



Source: MME (2020). Elaborated by the authors (2023).

ANP also carried out two public consultations, followed by public audiences that focused on the same themes and received

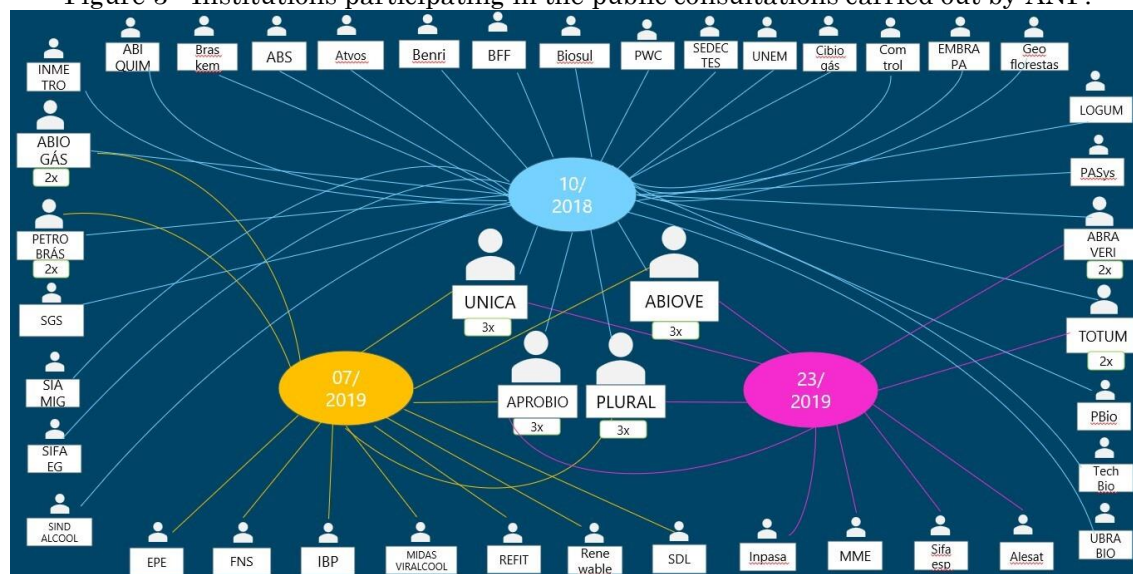
contributions from various institutions (Table 2 and Figure 3).

Table 2 – Public consultations of ANP on RenovaBio:

Nº	DATE	OBJECTIVE
10	11/05/2018	Regulation of the accreditation of inspecting firms and of the certification of biofuels.
07	07/03/2019	Individualization of the compulsory annual targets.
23	25/10/2019	Regulation of the procedures for the primary emission of CBIOS.

Source: ANP (2022). Elaborated by the authors (2023).

Figure 3 - Institutions participating in the public consultations carried out by ANP:



Source: ANP (2022). Elaborated by the authors (2023).

In this scenario, Associação Brasileira das Indústrias de Óleos Vegetais (ABIOVE - Brazilian Association of Vegetable Oil Industries in English), APROBIO, ÚNICA, and Associação Nacional das Distribuidoras de Combustíveis, Lubrificantes, Logística e Conveniência (PLURAL - National Association of Fuel, Lubricant, Logistics and Convenience Distributors) were the most significant participants, whereby the latter three also sent multimedia presentations to be shown at Public Audience no. 23. UNICA and APROBIO had already stood out at the public consultations of the MME, as did PLURAL, which participated twice in the consultations of the MME and three times in those of ANP. PLURAL is a national association that represents the main fuel and lubricant distribution companies in Brazil, which include Cosan, Ipiranga, Petrobras, Raízen, and Shell. ABIOVE represents 19 companies producing bran, vegetable oils, and biodiesel.

This survey demonstrates that participation in the public audiences and calls was unanimous

among the interested parties, which may have directly influenced the debated themes.

On the other hand, there was no participation by representatives from others sectors such as academia or environmentalists, which would have provided a counterweight in the interests under discussion that then resulted in modifications to the legislation of RenovaBio.

Territorial coverage

The sugarcane monoculture has been undergoing a large-scale expansion in Brazil as a result of various factors. The interest in ethanol and other biofuels as substitutes for fossil fuels, the granting of fiscal incentives for the installation of new sugar-energy power plants, the cogeneration of energy using bagasse, and the opening up to foreign capital can be highlighted as contributors to the cyclical growth spurts in the sector. In addition, there is also the use of new technologies that increase productivity and consequently reduce costs (Campos, 2014).

Areas of the Cerrado were, and remain, the main areas of occupation through the territorialization process, where there is a reconversion of production due to the growing demand for the expansion of sugarcane cultivation (Aracri, 2013).

Territory is a source of resources and should be understood based on its relationship with society and its production relationships, which can be identified through industry, agriculture, or the circulation of merchandise, that is, by the different ways that society uses it to appropriate and transform nature (Sposito, 2004).

Beyond the evident economic motivation and its social character, territories are also based on political relationships, which exercise their regulatory functions over the territorialized spaces.

The State is responsible for the organization of the territory, as well as for the materialization of the necessary apparatus such as schools, prisons, and hospitals. Functioning as a kind of power device, the State condenses all the power relationships of the actors, groups, and social classes (Freitas, 2015).

One of the ways in which the State acts is through the development of public policies, which can be conceived as programs of governmental action consisting of a set of articulated measures, the objective of which is to provide impetus, that is, to move the government machinery.

For Steinberger (2013), all public policies have their spatial basis as a common factor, given that they are generated within the apparatus of the State and are formulated based on internal conflicts between distinct agents, groups, and classes, which are condensed into the structure of the State and referenced in the territory. Public policies are executed in the territory and are therefore related to the environment and the society-nature binomial.

All public policies thus have a territorial and an environmental aspect in their broad sense.

Thus, environmental policy can be understood as a set of general orientations that guide the State's action in seeking harmony in the society-nature relationship. The environment is its fundamental element and it seeks, based on strategic vision, to correct the accumulation of historically constructed aggravations through orientation of the uses of nature and of territory (Pagnoccheschi; Bernardo, 2006).

Public policies of an environmental nature aim to regulate the action of humans on nature, both to correct bad usage and to guide adequate usage. It can be deduced that the use of nature and, by extension, the use of territory, constitutes the essence of regulatory intervention, as to intervene in nature is to intervene in its support, which is territory. Therefore, when using nature, humans are simultaneously using the territory, which is why it can be said that an environmental policy necessarily has a territorial dimension (Steinberger; Abirached, 2013).

As previously stated, despite being part of the national energy policy, RenovaBio is environmental in character. In addition, it has national coverage, given that it applies to any biofuel producer that will have the capacity to be accredited in the program, regardless of where they are situated.

The sugarcane monoculture is present in various Brazilian states and has been the subject of successive public policies to leverage its growth. Such incentives, in addition to favorable climatic, topographic, technological, and logistical conditions have led to large-scale expansion in the South-East region, notably São Paulo and Minas Gerais, and, currently, solid growth for the Central-West, these areas being predominantly Cerrado.

Table 3 – Production and planted area by region of Brazil on the 2022/2023 harvest.

Region	Production (Thousand tons)	Planted area (Thousand hectares)
North	3,823.0	47.3
South	30,953.1	475.4
North-East	56,060.7	871.7
Central-West	131,539.2	1,765.5
South-East	387,755.3	5,127.1

Source: CONAB (2023). Elaborated by the authors (2023).

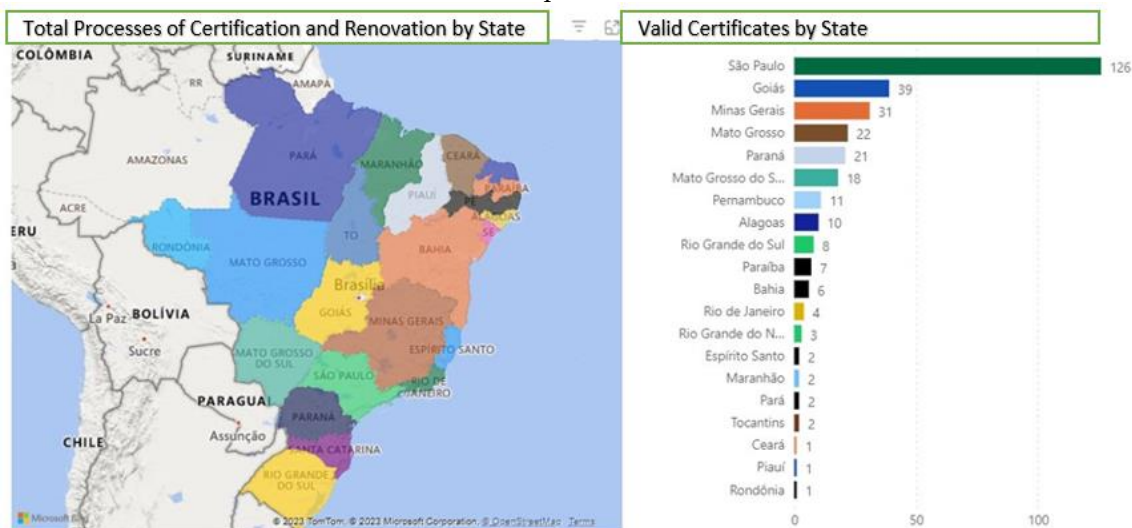
The state of São Paulo is responsible for 50% of the national production, followed by Goiás and Minas Gerais, consolidating the hegemony of the states of the South-East and Central-West regions in sugar-energy production (Table 3).

The dynamic panel of RenovaBio (Figure 4) shows that São Paulo leads the ranking of certified power plants in the program (126), followed by Goiás (29), Minas Gerais (31), and Mato Grosso (22). Acre, Amazonas, Roraima,

and Amapá have no certified power plants, with the North having only 5 power plants. The North-East region has 41 certified power plants,

corroborating the predominance of certifications in the states situated in the morphoclimatic domain of the Cerrado.

Figure 4 – Dynamic panel of RenovaBio with the number of certified power plants by state in September 2023.



Source: ANP (2023a).

Regarding the expansion of sugarcane cultivation in areas of the Cerrado, it is important to mention agroecological zoning (ZAE) of the sugarcane sector in Brazil. ZAE was created through Presidential Decree no. 6.961/2009 and was monitored by a technical study coordinated by the Empresa Brasileira de Pesquisa Agropecuária (Embrapa - Brazilian Corporation of Agricultural Research in English). The aim was to provide technical support for the formulation of public policies aimed at the sustainable expansion of sugarcane in Brazil (EMBRAPA, 2009).

ZAE was considered a victory for the environmentalist sector of the government at the time as it prohibited the installation of new power plants in the Amazon, the Pantanal, and the Bacia do Alto Paraguai (Upper Paraguay Basin), in addition to vetoing the suppression of native vegetation for the planting of sugarcane. The states identified as having a greater capacity for the expansion of sugarcane were Goiás, Mato Grosso do Sul, São Paulo, Minas Gerais, and Paraná, as well as the area of Mato Grosso that is not part of Amazônia Legal (Legal Amazon).

RenovaBio originally had three eligibility criteria for areas to be able to participate in the program:

1. All production must come from an area without deforestation after the enactment date of the RenovaBio Law (December 26, 2017);
2. The entire area must conform to the Código Florestal (Forestry Code in English),

through regularization of the Cadastro Ambiental Rural (CAR - Rural Environmental Register in English);

3. Production areas must conform to the agroecological zoning of sugarcane.

However, the Decree implementing ZAE-Cana (Sugarcane zoning) was revoked in 2019 by the president of the time, Jair Bolsonaro, causing RenovaBio to lose one of its important limiting elements, which, until now, has not been substituted. This act demonstrates the interest in relaxing the original requirements of the program to expand the cultivation of sugarcane, causing greater environmental risk.

After the revoking of ZAE-Cana, the Ministério Público Federal (Federal Public Ministry – the Federal Public Prosecutor) judicially obtained suspension of the liberation of sugarcane cultivation in areas of the Pantanal and the Amazon, an impediment that remains in the absence of a final decision in the process (MPF, 2022). This injunction decision, albeit provisional, has prevented the expansion of sugarcane into areas previously protected by the ZAE-Cana, although new legislation is still required to guarantee more consistent protection for said areas.

Furthermore, there is the reinforcement of the destination of public policies towards the central region of the country, which concentrates most of the sugar-energy power plants. In these areas, there is solid growth in sugarcane cultivation, now driven by

RenovaBio, given that the more biofuel produced, the more CBIOS will be traded, and the greater the profits for the power plants.

Structural

In recent history in Brazil, there have been various chapters of state interventions to provide incentives to the sugar-energy sector. The most memorable is the Programa Nacional do Álcool (Proálcool – National Alcohol Program in English) of 1975, although there are numerous other examples such as the concession of financing, tax reductions, increasing the quantity of ethanol in gasoline, debt repayment through installment plans, and the writing off of debts.

According to Delgado (2012), agribusiness is a production and management model resulting from the association of national and international agro-industrial capital with large-scale land ownership. This association entails the involvement of financial and banking capital, science, technology, information on the appropriation of land, and information on the imposition and consolidation of a type of land use and a type of food production.

Brazilian agribusiness has, as a whole, repeatedly obtained political and legislative benefits:

(...) the “conquests” of the sector obtained through labor reform, changes in Environmental Licensing, the ending of purchasing priority of food for school meals from [indigenous] settlements and communities, in addition to the approval of Law Bill 9086/2017, which created the National Biofuels Policy (RenovaBio). This opens the way for a set of fiscal incentives, expansion of the participation of bioenergy from sugarcane in the national energy matrix and the promise of 1.4 trillion Reals in investments in the sugar-energy sector in the long term. Other recent highlights include the growth in the clearance of agro-toxins (almost 500 annually), the lowering of the toxicity class of approximately 600 products, the increase in the dollar (broadly favoring the exportation of agricultural products), the constant attacks of Bolsonaro in favor of relaxing environmental and labor legislation / monitoring, and the debt forgiveness proceedings of the Fundo de Assistência ao Trabalhador Rural (Assistance Fund for Rural Workers) (Funrural) and the Imposto Territorial Rural (Rural

Territorial Tax) (ITR) – which can permit between R\$ 34 and R\$ 40 billion in debt discounts or cancellations for agribusiness (Stacciarini, 2021, p. 17).

In addition to all the abovementioned measures, the approval of RenovaBio demonstrates a recurrent pattern of action that aims to strengthen and expand a sector that has always pressured and demanded the creation of long-term public policies that bring profit and greater economic security.

In the case of RenovaBio, after the signing of the Paris Agreement, it became necessary to create a public policy that enabled attainment of the adopted targets, especially the reduction in greenhouse gas emissions, which are mainly caused by the use of fossil fuels.

The existing political game in the Congress, in addition to the power of the old rural caucus, currently known as the Frente Parlamentar da Agropecuária (FPA - Parliamentary Front for Agriculture in English), led RenovaBio to be approved in a record time of 24 days processing, whereas the average approval time for a bill of law in Brazil is over a thousand days (Marcelino, 2020).

In 2017, the year RenovaBio was approved, agribusiness had the most organized caucus in the Congress, with 18 parties, 210 federal deputies, and 26 senators, totaling 236 congressmen, representing 39.7% of total membership.

In the Brazilian political system, there are groups that often manage to get representatives elected to political and administrative positions with the aim of preserving and defending their interests (Santos, 2020). Thus, these groups guarantee access to and channels of influence between the formulators of public policies, facilitating the legitimization of their demands.

In the case of RenovaBio, the revolving-door phenomenon occurred, whereby the political decision-maker left their legislative mandate for a representation position in an interested group (Lazaro; Thomaz, 2021). Ex-federal deputy, Evandro Gussi, author of the RenovaBio Bill, began his legislative mandate in 2015, and it ended on January 31, 2019. He chose not to run for reelection and took on the presidency of UNICA twelve days later, on February 12, 2019.

Since August 2022, Evandro Gussi has also occupied the presidency of the Advisory Board of the Empresa de Pesquisa Energética (EPE - Energy Research Company in English), a public company linked to the MME (EPE, 2022).

UNICA was one of the entities with central participation in the development of RenovaBio, not only for the proposal of the Bill, but also as

the biggest participant in the public audiences, offering contributions in the consultation.

There are invisible links connecting the institutions to each other that can be characterized, for example, by dependence on financial resources that are bargained in exchange for political support with the aim of guaranteeing the maintenance of power and the capitalist structure (Dagnino *et al.*, 2015).

The State, therefore, acts in a way that planning and intervention in the economy ensure the private interests of the group that dominates and constitutes it. Thus, the private use of the public apparatus demonstrates that political practices and actions are personified and reveal the structure of power (Souza, 2006).

In the same vein, RenovaBio is a political response to the wishes of the sugar-energy power plants for the creation of a mechanism that makes the activity profitable. The political powers that acted to approve the program in record time and to divulge it as the only way of fulfilling the Paris Agreement and reducing greenhouse gases, continue to act to make more power plants register, so that the CBIOs acquisition targets for the fossil fuel distributors are higher and higher and are not deferred or extended.

These same powers also act with the aim of relaxing the program's requirements. In one of its contributions sent to ANP in public consultation, UNICA requested that fulfillment of the requirement of no suppression of native vegetation only begin with the publication of new regulation on the part of ANP. Such a requirement would mean the concession of more time for deforestation, given that the law in force stipulated the temporal mark of the validity of the RenovaBio Law as the limiting date for the occurrence of suppression. UNICA also requested that deforested areas in which environmental compensations had been carried out be eligible. Said suggestions were not accepted (ANP, 2022).

The removal of the ZAE-Cana from the program's list of eligibility requirements was requested not only by UNICA, but also by other representative institutions (ANP, 2022), and, as already stated, this point was accepted by the government and ZAE-Cana was revoked.

Thus, as a public policy, RenovaBio bears the burden of suspicion regarding its motivation, given that it is backed by an extraordinary active political game.

This happens because of the predominant concern with the economic factor, as RenovaBio brings great expectations related to the investments surrounding its market product, the CBIOs negotiated on the stock exchange.

In June 2020, the first CBIO was traded at R\$50.50. In June 2022, CBIOs reached a record value of R\$202.62. In 2022, the mean value for the annual trade was R\$111.65, and up to the middle of 2023, the mean annual trade value was also in the band of 100 Reals (Datagro, 2023).

Considering that the compulsory CBIO acquisition target for the fossil fuel distributors for 2023 is 37,470,000 (thirty-seven million, four hundred and seventy thousand) CBIOs, the sugar-energy power plants stand to make over three billion Reals with this bond in 2023 (ANP, 2023c).

Therefore, all the haste and articulation for the approval of the Bill and the maintenance of targets clearly denotes that, for the business community of the sugar-energy industry, RenovaBio represents an opportunity for resumed growth after the successive crises faced by the sector.

In addition to this political articulation, there is also invisible work that the sugar-energy industry carries out ideologically. Bachrach and Baratz (1962) explain that power is exercised when an actor uses its strength to create or reinforce social and political values and institutional practices to restrict the debate to issues of their interest. There is a level of conformation of the political process to safe issues, in which power is used to explain only the conflicts that will be debated, acting to suppress others that come to compromise the themes chosen to be confronted.

In this system of domination, power is used to manipulate the interests and preferences of the people. This can happen, for example, through socialization through education and use of the media.

In Brazil, publicity on agribusiness is widely known under the slogan "O Agro é pop, o agro é tech, o agro é tudo" ("Agro is pop, Agro is tech, Agro is everything"), which aims to attribute importance to the sector as the flagship of the economy.

Benites-Lázaro *et al.*, (2017) analyzed 35 videos and multi-media presentations produced as part of UNICA's marketing communication, with the aim of examining the business storytelling strategies of the institution.

The authors concluded that their storytelling is used to promote positive images of the sugarcane companies as an environmentally and socially responsible industry, emphasizing the following points: the importance of the sugarcane industry to the planet; the development of renewable energy; sustainability; the combat of climate change; and job generation. Storytelling was used as a

strategic resource to achieve social acceptance of the sector, developing stories that portray ethanol as a “green hero” that will save humanity from climate change.

However, it is the responsibility of the sugar-energy sector to also discuss the environmental problems attributed to it, such as the deforestation incentive, the water crisis, and the loss of biodiversity. These are criticisms that go against the pillars of sustainability and need to be addressed to bring greater clarity and confidence to the use of ethanol and other biofuels.

FINAL CONSIDERATIONS

After the signing of the Paris Agreement, the government moved to create a public policy that would make it possible to reach the adopted targets, with the involvement of various institutions in constructing a mechanism that would reduce the use of fossil fuels.

However, the creation of the RenovaBio passed through deeper layers, revealing the formation of a network of actors involved in the process that demonstrates the existence of power relationships, at times translated through subordination, resource dependence, or political support.

The sugar-energy sector is part of agribusiness, which has great economic and political strength. There is an organized coalition in the Congress and leaders spread through public and private institutions acting in every sphere to guarantee the interests and preserve the power of this group.

The struggle for power and resources among social groups is at the heart of public policy formulation, as occurred with RenovaBio. This struggle is mediated by political and economic institutions that conduct public policies in a certain direction and privilege certain groups to the detriment of others, always based on their own interests (Souza, 2006).

This translates into the concession of various benefits, but in the case of RenovaBio, this network of actors worked for the construction of a legal text in their favor, approval of the Bill in record time, directed regulation, relaxing of the requirements, and the fixing of high CBIO acquisition targets.

The public policy formulation process cannot only count on the contribution of interested parties, as it entails the favoring of those that participate to the detriment of public interest. The presence of other actors such as researchers from universities, environmentalists, and non-

governmental organizations would ensure a more equal and collective construction.

There is also ideological work carried out by these actors through publicity, which, through the manipulation of language, aims to mobilize and modify social opinion on the benefits of growth in the sugar-energy sector. The way society interprets the world is modified through these ideological mechanisms, transmitting and perpetuating a system of values and truths to make people believe and defend this new idea (Dagnino *et al.*, 2015).

RenovaBio is extremely promising; however, there are loopholes that need to be resolved and a series of political interferences that hinder the development, transparency, and credibility of the program.

This makes it necessary to evaluate the implementation stage of RenovaBio, the commitment of the accredited power plants, and the adoption of better environmental practices. In addition, it is also necessary to verify the meeting of eligibility criteria and evaluate the lifecycle, which gives rise to the environmental energy efficiency scores, thereby making it possible to determine whether the program has been efficient in terms of sustainability.

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AUTHOR CONTRIBUTION

Virgínia Corrêa Santos de Andrade carried out the study and wrote the text. Gelze Serrat de Souza Campos Rodrigues reviewed and edited the text.



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