

Resolution No. 507/2024 of the Brazilian National Environmental Council: the discourses present in its drafting process

*Resolução Nº 507/2024 do Conselho Nacional do
Meio Ambiente: os discursos presentes em seu
processo de elaboração*

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doi:10.18472/SustDeb.v16n2.2025.56433

Received: 10/12/2024
Accepted: 30/07/2025

ARTICLE- VARIA

ABSTRACT

Given that conceptions about sustainable forest management (SFM) are shaped by discourses that propose different “world views”, we characterise, based on discourse theory, the discourses and narratives present in the drafting process of Resolution No. 507/2024 of the Brazilian National Environmental Council, aimed at regulating the SFM of the Caatinga. The production of the Resolution was marked by discourses and coalitions that propose alternative and, to some extent, contrasting narratives about institutional action related to forest governance and SFM, as well as to the sustainable exploitation of forest resources. The dominance of the administrative simplification discourse reflects an imbalance of power and the consolidation of a “technical-bureaucratic” approach to forest management and SFM. However, it was widely understood that SFM could enable the transition beyond forest extractivism, establishing itself as a forestry policy essential for ensuring the sustainability of the Caatinga.

Keywords: Forest discourses. Forest legislation. Sustainable forest management. Sustainability. Caatinga.

RESUMO

Uma vez que as concepções sobre o manejo florestal sustentável (MFS) são moldadas por discursos que propõem distintas “visões de mundo”, baseados na teoria do discurso, caracterizamos os discursos e narrativas presentes no processo de elaboração da Resolução Nº 507/2024 do Conselho Nacional do Meio Ambiente, voltada à regulamentação do MFS da Caatinga. A produção da Resolução foi marcada por discursos e coalizões que propõem narrativas alternativas e, em certo grau contrastantes, sobre a atuação institucional relacionada à gestão florestal e ao MFS, e sobre a exploração

sustentável dos recursos florestais. O predomínio do discurso da simplificação administrativa reflete o desbalanceamento de poder e a consolidação de uma abordagem “técnico-burocrática” da gestão florestal e do MFS. Porém, foi comum o entendimento de que o MFS permitiria superar o extrativismo florestal, constituindo-se uma política florestal necessária à sustentabilidade da Caatinga.

Palavras-chave: Discursos florestais. Legislação florestal. Manejo florestal sustentável. Sustentabilidade. Caatinga.

1 INTRODUCTION

Sustainable forest management (SFM) of the native vegetation in the Caatinga has been the subject of debate since the 1980s, when the first estimates of forest resource demand were made and experiments were launched to generate the technical knowledge required for SFM (Gariglio, 2010; Riegelhaupt *et al.*, 2010). From the 1990s onwards, the first formal regulations and policies were established to govern how SFM should be authorised, implemented, and monitored — a process accompanied by the emergence of discourses surrounding SFM (Faggin; Behagel, 2017; Lucena *et al.*, 2023).

Discourses are understood as ideas, concepts, and categorisations produced and reproduced through identifiable sets of practices, through which we socially construct meaning for physical and social phenomena (Brites, 2020; Hajer, 2006; Hajer; Versteeg, 2005). Forest-related discourses address topics and notions that intersect with economic, social, and environmental discourses, as well as the historical processes of societies (Arts *et al.*, 2010).

Norms and discourses on SFM are adapted from global contexts to the local level, primarily influenced by the characteristics of local policy frameworks and how actors interpret socio-ecological systems. This results in differing narratives and conceptualisations of institutional strategies for forest use and conservation (Faggin; Behagel, 2017).

In the case of the Caatinga, Lucena *et al.* (2023) identified that discourses surrounding SFM contain many shared ideas and narratives, but also parallel — and frequently competing — interpretations of the environmental and social dimensions of SFM, as well as of the institutional strategies for its implementation. Over time, these discourses have carried varying degrees of influence over the drafting of formal regulations governing SFM, with institutional design and an approach that emphasises the implementation of forest management plans on private landholdings for the production of bioenergy from firewood and charcoal prevailing (Faggin *et al.*, 2017; Lucena *et al.*, 2023).

In 2020, a technical working group was established within the Brazilian Ministry of the Environment to address the revision of the regulations governing the drafting, implementation, technical assessment, and environmental authorisation of SFM plans (MMA; Ibama, 2020). This process culminated in the creation of Resolution No. 507, dated 18 July 2024, issued by the Brazilian National Environmental Council, which sets out the core guidelines for these procedures (Brazil, 2024).

In light of the drafting process of the aforementioned Resolution, the existence of discourses on SFM in the Caatinga, and their relationship with policy and institutional practice, we pose the following questions: what ideas, proposals and visions constitute the discourses on SFM present in the drafting and discussion process of the said Resolution of the Brazilian National Environmental Council? How do these discourses address institutional action and the utilisation of forest resources? Do any differences between the discourses amount to fields of dispute and divergence regarding the demands related to forest management and SFM? Which ideas and narratives are common to the discourses?

Given that the theoretical perspective of discourse is a valuable tool for understanding how the processes of structuring and developing debates and policies on environmental issues occur (Brites, 2020), our

objective is to characterise the discourses, narratives, and the formation of discursive coalitions active in the drafting process of Resolution No. 507/2024 of the Brazilian National Environmental Council, aimed at regulating SFM in the Caatinga.

2 THE DISCOURSE APPROACH: A TOOL FOR UNDERSTANDING ENVIRONMENTAL ISSUES

The discourse approach emphasises the social relationships through which phenomena are elaborated and modified, and it prioritises understanding how they are addressed by society. It presupposes that language, rather than being a neutral reflection of reality, is used as a way of shaping our worldview, constituting a performative power (Brites, 2020; Hajer, 2006; Hajer; Versteeg, 2005; Torfing, 2005).

This understanding is based on the principle that there are many possible political realities and, therefore, an environmental issue can be subject to multiple forms of interpretation. This is because, through discourse, it is possible to influence and create policy alternatives, propose symbols and change the balance of power, thereby impacting institutions and political decisions (Hajer, 2006; Hajer; Versteeg, 2005; Torfing, 2005).

Two conceptual structures help to characterise and understand discourses: narratives and discursive coalitions (Hajer; Versteeg, 2005). Narratives are a set of condensed statements that synthesise elements of various more complex facts or events (Hajer, 2006). Narratives act as a signal provided by the subject during the communication process about a more complex storyline, to organise social interaction (Brites, 2020). Discursive coalitions, in turn, refer to a group of individuals who, in a given context of space and time, share the joint use of narratives (Hajer, 2006). Understanding these structures also allows their influence to be assessed, especially by highlighting when discursive coalitions become consolidated in institutions and organisational practices – the institutionalisation of discourse (Brites, 2020; Hajer, 2006).

3 FOREST MANAGEMENT OF NATIVE FOREST RESOURCES OF THE CAATINGA: A BRIEF CONTEXTUALISATION

The Caatinga is a heterogeneous region in terms of climate, soil, ecology, flora, and social aspects (Alvares *et al.*, 2013; Silva; Souza, 2018). It occupies 12% of the national territory and is home to around 28 million inhabitants, 38% of whom live in rural areas (Brazil [n.d.]). Its native forest resources have significant socio-economic relevance, both for local industrial and commercial sectors that consume considerable amounts of biomass energy – firewood and charcoal (Riegelhaupt; Pareyn, 2010; Riegelhaupt *et al.*, 2017), and for traditional livestock farming, which primarily takes place in natural pastures within native vegetation areas (Araújo Filho, 2013; Pinheiro; Nair, 2018), as well as for the extraction of non-timber forest products (Melo, 2017).

Based on the recognition of this importance, along with the limitations and risks associated with extractivism and inadequate management, initiatives began to emerge in the 1980s proposing forest management of the Caatinga through the application of silvicultural techniques (Kirmse *et al.*, 1987; Riegelhaupt *et al.*, 2010). This led to the need for formal regulations to govern what came to be known as Sustainable Forest Management (SFM) of the Caatinga (Lucena, 2022).

In general, such regulations are established through normative instructions issued by the Brazilian federal government, which state environmental agencies may complement. The environmental licencing of an SFM plan is subject to the prior analysis of technical and legal documents, monitoring and control of its implementation, and annual harvesting licences, which require renewed document analysis (Faggin *et al.*, 2017).

As SFM is, fundamentally, an economic activity undertaken on the private initiative of rural landowners (Chaves, 2017), it has been proposed since the 1990s that regulatory norms should permit a “simplified management”. This was the concern incorporated into Normative Instruction No. 1, published by Ibama (Brazilian Environmental Federal Agency) on 25 December 1994, which was intended to “simplify” the implementation of SFM plans to make it possible to produce firewood and charcoal on small rural properties sustainably (Riegelhaupt *et al.*, 2010).

One of the main public promotion policies for SFM has been the provision of technical assistance and forestry extension aimed at the environmental licensing of SFM in agrarian reform settlements. However, even in these cases, it has been considered that this was not capable of assisting producers during all phases of licensing and implementation, which led to the recognition that effective public policies were necessary for the success of SFM (Faggin; Behagel, 2018; Faggin *et al.*, 2017).

Another aspect worth highlighting is that the initial technical experiments aimed at establishing SFM were designed to provide a solution for supplying industries located within the geographical region of the Caatinga and its bordering areas, which consumed large quantities of charcoal and firewood. Their main conclusion was that the supply would be more viable if achieved through the sustainable production of fuelwood for charcoal, extracted from managed Caatinga (Riegelhaupt *et al.*, 2010). However, other initiatives proposed alternative sources of energy supply — such as the silviculture of exotic species like mesquite (Santos; Diodato, 2017) — dominant discourses point to bioenergy-oriented SFM as the most suitable model of forest production given the socio-economic and climatic conditions of the semi-arid region (Faggin *et al.*, 2017).

Nevertheless, the pastoral and non-timber use of the Caatinga through SFM has historically been a subject of demands, dividing opinion among specialists and forest policymakers. This perspective, which values the diversification of forest production, was formally incorporated into SFM regulation on certain occasions — such as through Federal Normative Instructions No. 1 of 6 October 1998 and No. 3 of 4 May 2001, both issued by Ibama (Brazilian Environmental Federal Agency). These regulations permitted non-timber exploitation and the presence of livestock within areas under timber management, provided that the carrying capacity of the managed vegetation and fallow periods allowing for satisfactory regeneration were duly respected (Lucena, 2022).

Despite this, over time, the prevailing view has been that the management area should be protected in order to allow for forest regeneration between harvest cycles in the bioenergy management model (Faggin; Behagel, 2018). As a result, other forms of forest use have remained marginalised within many of the institutional initiatives aimed at promoting SFM (Faggin *et al.*, 2017).

4 METHODOLOGY

4.1 CONTEXT OF THE DRAFTING OF RESOLUTION NO. 507/2024 OF THE BRAZILIAN NATIONAL ENVIRONMENTAL COUNCIL

In 2020, the Brazilian Environmental Federal Agency (Ibama) established the Working Group for the Promotion of Good Environmental Management Practices and the Strengthening of Sustainable Use of Renewable Natural Resources in the Caatinga Biome (WG Caatinga). Its mission was to identify alternatives to improve environmental governance, with a focus on promoting sustainable development, fostering regional development, and enhancing institutional capacity to ensure a process of shared environmental governance among federal entities (MMA²; Ibama³, 2020). Ultimately, a draft Resolution was submitted by the Brazilian National Environmental Council (Conama) to regulate the rules for the preparation, implementation, technical assessment, and environmental authorisation of SFM plans (Conama, 2021).

The WG's working dynamics consisted of: 1) presentation of the initial draft Resolution; 2) deliberations and amendments to the initial proposal following meetings and consultations with state environmental agencies, local stakeholders, and other institutions involved in the process; 3) public presentation and discussion of the draft Resolution following debates and revisions, broadcast via YouTube on 4 November 2021 (Ibama, 2021b); and 4) a public consultation open to all interested parties via an online form, which received submissions between 29 October and 4 December 2021 (Ibama, 2021c).

4.2 DATA COLLECTION AND DISCOURSE ANALYSIS

The documents produced throughout the process of drafting, discussing, and amending the resolution were evaluated. These included: Technical Note No. 44/2021/COUSF/CGBIO/DBFLO (Ibama, 2021a); Technical Opinion No. 1/2021-CGBIO/DBFLO (Ibama³, 2021d); Draft Resolution of the Brazilian National Environmental Council (Conama) on Sustainable Forest Management in the Caatinga (Conama, 2021); and the video recording of the public broadcast discussing the proposed resolution (Ibama³, 2021b). The latter made it possible to obtain further insights into the discourses and narratives of key actors involved in the process (Table 1).

Table 1 – Institutions involved in the public consultation process of Draft Resolution Conama No. 507 of 18 July 2024

<i>Institution</i>	<i>Department/Division</i>
Governmental / Federal Environmental Agency - Ibama	Presidency
Governmental / Federal Environmental Agency - Ibama	Directorate for the Sustainable Use of Forests
Governmental/Pernambuco	Secretariat for the Environment and Sustainability
Supra-national - FAO	--
Supra-national - FAO	Coordination of the regional project for the strengthening of agri-environmental policies in Latin America and the Caribbean – FAO
NGO	Caatinga Forest Management Network
Governmental / State Environmental Agency	State Environmental Agencies - OEMAs
Governmental / Environmental Agency - Ibama	Coordination for the Sustainable Use of Forest Resources
Governmental / Environmental Agency - Ibama	Pernambuco Superintendency
Governmental – Education / Research	Federal Rural University of Pernambuco
Governmental – Education / Research	Federal Rural University of Pernambuco
Governmental – Research	Embrapa Semi-arid
Governmental – Education / Research	Federal Rural University of Pernambuco
Governmental / Environmental Agency	--
Professional Sector	--

Source: elaborated by the authors.

To analyse the materials studied, we adopted the definitions of “narratives”, “discursive coalition”, and “discourse” as set out in Table 2.

Table 2 – Conceptual definitions adopted in the analytical process

<i>Narratives</i>	<i>Discursive coalition</i>	<i>Discourse</i>
Condensed or summarised statements issued to synthesise the complex elements that constitute a given fact or event (Brites, 2020; Hajer, 2006).	Refers to groups of individuals who, within a specific context and timeframe, share the use of a common set of narratives that underpin the formulation of a discourse (Brites, 2020; Hajer, 2006).	Encompasses the ideas, concepts and classifications used to construct perceptions of a given phenomenon (Brites, 2020; Hajer, 2006).

Source: elaborated by the authors.

Based on the previous definitions, the analysis of the documents followed the steps outlined below, in accordance with Borioni and Sánchez (2023):

- i. Identification and characterisation of narratives within the written documents and the statements made by actors who participated in the public broadcast of the resolution proposal discussion. The aim was to identify narratives through communicative acts with a performative nature, suggestive of a critical or transformative intention regarding the normative aspects to be incorporated into the resolution. Therefore, laudatory quotations, historical information, or purely descriptive content were excluded, as they would not contribute to the research objective.
- ii. Organisation of shared narratives issued by different actors into “discursive coalitions”.
- iii. Organisation of the discursive coalitions into thematic fields based on the actors’ discourses.

The concepts, ideas, and narratives used to characterise the discourses and discursive coalitions were presented without attributing the original source, in order to preserve individual or institutional identity, as emphasised by Brites (2020).

5 RESULTS

We identified four discursive coalitions grouped into two thematic fields (TF): a) TF1 – State and administrative action, composed of the coalitions of the “discourse of administrative simplification” and the “discourse of public promotion”; and b) TF2 – Forest production, comprising the coalitions of the “discourse of sustainable bioenergy production” and the “discourse of sustainable diversification of forest production”. Actors’ alignment with the discursive coalitions was not static, often resulting in overlapping positions across shared discourses and narratives (Table 3).

Table 3 – Thematic fields, discursive coalitions, and narratives present during the drafting process of the Brazilian National Environmental Council (Conama) Resolution

Thematic Field 1: State and administrative action	
a) Coalition 1: Normative simplification and alignment of administrative action	b) Coalition 2: Public support
Narratives: a.1) Flexibilisation and simplification of administrative rules as a means of enabling the expansion of SFM; a.2) The existing misalignment between federal and state regulations, as well as administrative conflicts between these levels of government, restricts SFM.	Narratives: b.1) The success of SFM in the Caatinga requires more effective State action; b.2) The expansion of support measures and the implementation of effective technical assistance and forest extension policies are essential to SFM.
Thematic Field 2: Forest production	
c) Coalition 1: Sustainable bioenergy production and strengthening of local industries	d) Coalition 2: Sustainable diversification of forest production
Narratives: c.1) SFM as a way of legally and sustainably meeting the energy demands of the industrial sector in the Northeast region; c.2) Firewood and charcoal are essential energy sources for the industrial sector; c.3) Strengthening the industrial sector by ensuring legal and sustainable conditions generates greater dynamism in the local economy.	Narratives: d.1) The revision of regulations for the implementation of SFM plans should also support regional livestock farming. d.2) Forage derived from the woody stratum is an important source for sustaining local herds.
Shared narratives:	
<ol style="list-style-type: none"> 1) SFM is a tool that contributes to tackling environmental challenges such as desertification, climate change, environmental degradation, deforestation, and biodiversity conservation; 2) SFM is put forward as a means of fostering sustainable production and ensuring the long-term sustainability of the semi-arid region; 3) SFM is presented as a means to stimulate the regional economy, generate income, retain rural populations, and foster regional socio-economic development; 4) The “Caatinga” biome is a “forgotten” ecosystem in terms of access to development and management tools; 5) SFM is a strategy to overcome the traditional extractivist approach to natural resource use; 6) Regional socio-economic development strongly depends on forest resources. 	

Source: elaborated by the authors.

An important particularity is that there was no rigid separation of actors’ positions regarding the themes encompassed by the coalitions (for example, actors supporting the public support discourse might also, regarding narratives around forest resource use, align themselves with either of the two coalitions). Therefore, the classification presented should primarily be understood as a didactic tool to help interpret the different conceptions or “worldviews” concerning Sustainable Forest Management (SFM) in the Caatinga.

Concerning the thematic field of “State and administrative action”, Coalition 1 puts forward the discourse of “administrative simplification”, based on two core narratives: a) that the “flexibilisation” and simplification of administrative rules and procedures would enable improved conditions for implementing SFM; b) that incompatibilities between procedures and jurisdictional conflicts between state and federal environmental bodies and regulations currently act as barriers. Proponents of this discourse argue that the success of SFM is presently hindered by the difficulties caused by excessive

bureaucracy and by the lack of alignment between federal and state regulations, as well as administrative disputes between the two levels of government.

In light of this scenario, this coalition argues that the existence of “bureaucratic and complex” requirements discourages potential SFM proponents, leading them to allocate their forest lands to productive uses that do not require environmental licensing. Another argument put forward is that landowners may deforest their land or exploit it without the technical rigour required to comply with the sustainability standards that apply when management is carried out through licensed SFM plans overseen by environmental authorities.

The second coalition within this thematic field is aligned with the discourse of “public support”. It advocates the narrative that broader socio-economic factors must be incorporated into the institutional mechanisms aimed at implementing SFM.

Rather than simply “simplifying” or “standardising” administrative procedures and institutional action, addressing and understanding the socio-ecological conditions that influence whether or not SFM is adopted is deemed essential for sustainability, since it is assumed that local socio-ecological contexts require tailored forms of institutional intervention.

For these reasons, this coalition advocates a profound reorganisation of State action in order to move beyond an institutional approach based solely on command and control. The newly advocated stance, therefore, calls for the public sector to act as a promoter of SFM and of the consolidation of sustainable production systems. The narratives include, among the necessary actions to achieve these goals, not only the provision of technical assistance and forest extension services, but also the development of public policies that address the structural issues underpinning the implementation of sustainable production methods, including SFM. As such, a broad State responsibility would be required to tackle forest-related challenges, including deforestation and the conservation of the Caatinga.

With regard to the thematic field of forest production, the discursive coalition promoting the discourse of sustainable bioenergy production is based on the narrative that SFM represents a means of securing a sustainable bioenergy supply. Its founding narrative holds that SFM offers a sustainable and lawful response to the energy demands of the industrial sector, not only in the semi-arid region but also in other parts of the Northeast, since firewood and charcoal derived from managed native vegetation are regarded as the primary energy sources.

According to this discourse, sustainable bioenergy production is essential to the sustainability of local productive and industrial sectors, as the use of biomass from native vegetation, managed with techniques that ensure regeneration and forest conservation, would enable higher levels of environmental sustainability, such as through the “carbon neutrality” that bioenergy-oriented SFM is said to make possible. This would allow companies to operate with greater socio-environmental responsibility, which is key to building a sustainable identity for the regional industrial sector, often associated with negative practices such as deforestation.

In the view of this discourse, the idea of guaranteeing a source of energy biomass for the sustainable supply of local industries and commerce encompasses the broader objective of contributing to the socio-economic development of the semi-arid region. Thus, by strengthening the industrial sector and guaranteeing legal and sustainable conditions for the supply of an indispensable raw material, greater “efficiency” is expected and, therefore, better competitive conditions for industries and greater dynamism in the local economy.

In turn, the coalition that leads the discourse of “sustainable diversification of forest production” is based on narratives that demand that institutional strategies for promoting SFM be adapted to productive conditions and “traditional” ways of life. This coalition calls for the recognition of the broad socio-

economic and cultural role that forest resources play in the socio-ecological context of the semi-arid region. The prevailing understanding is that, instead of solely producing energy, biomass and timber products, SFM should also include productive systems that provide fodder to ensure complementary forms of animal feed, aiming to increase herd productivity, as herds are considered a financial reserve and an important food source, especially for “smallholders”.

The objective of this coalition is the construction of a “new institutional vision”, in which SFM can contribute to sustainable multiple-use forest production (reconciling bioenergetic production with the supply of fodder), in order to permit the promotion of local development and to leverage the regional socio-economy, generating employment and income, whilst also seeking to promote the conservation of environmental resources.

In contrast to the noted differences, the discourses include common narratives that relate SFM to the promotion of socio-environmental advances such as sustainable production, sustainability, increased forest productivity, the reduction of deforestation and desertification, and the conservation of forests and biodiversity (Figure 1).

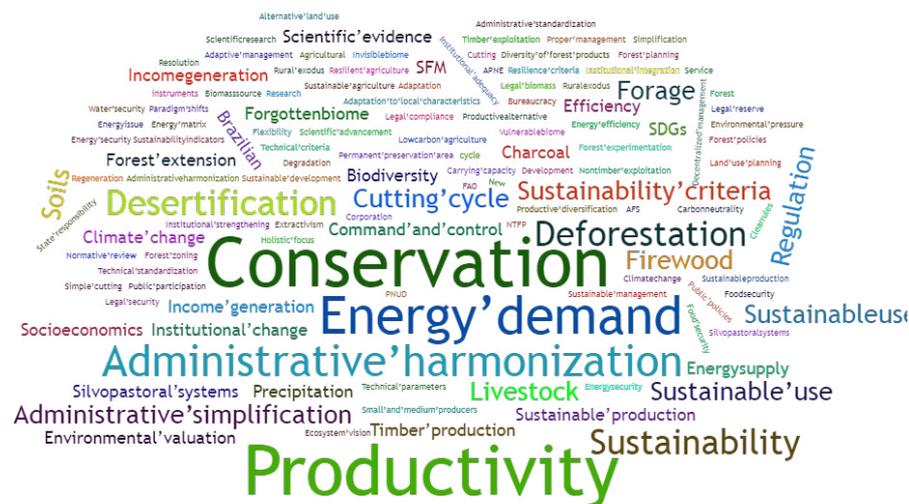


Figure 1 – Common narratives put forward by the discursive coalitions identified in both thematic fields

Source: elaborated by the authors.

These narratives state that the socio-economic development, sustainable production, and environmental sustainability of the semi-arid region depend primarily on how the native vegetation is managed. Thus, SFM of native vegetation is seen as an indispensable alternative to promote economic advances and the material improvement of local populations’ lives, as it would make it possible to generate employment and income, prevent rural exodus, and foster regional development.

The production of this narrative reflects the broad understanding that administrative action must combine extensive efforts to achieve forest management that allows for environmental sustainability and socio-economic development, which constitutes a common understanding with the aspirations of actors who also advocate for “administrative harmonisation”.



6 DISCUSSIONS

The proposals that represent the discourse of “normative simplification and alignment of administrative action” constitute an already consolidated perspective in the understanding of the decision-makers and policymakers for SFM in the Caatinga. Since the early 1990s, there has been the idea that it was necessary to adapt the implementation of SFM to the socio-land tenure characteristics of the semi-arid region through administrative procedures that possessed “clear and simple rules” (Riegelhaupt *et al.*, 2010). For example, Normative Instruction No. 1 of 6 October 1998 established that, in the case of properties smaller than 50 hectares, the licensing body could permit forest exploitation without the presentation of SFM plans (Ordinance 113 of 29 December 1995) and that properties smaller than 500 hectares could benefit from a reduction of up to 50% in administrative fees.

With its central narrative being the concern over excessive administrative bureaucracy required for the environmental licensing of SFM plans, the “simplification of rules” has become consolidated as a discourse capable of conditioning institutional action related to SFM. This discourse is present not only in the federal normative instructions established after Normative Instruction No. 1 of 25 February 1994 from the Brazilian Institute of Environment and Renewable Natural Resources (Ibama) (Lucena, 2022), but also constitutes the central narrative used to justify the changes that Resolution No. 507 of 18 July 2024 from Conama (Brazilian National Environmental Council) aims to establish in relation to previous norms, still considered “bureaucratic”.

Whilst “administrative simplification” is a dominant discourse and has been institutionalised in Conama Resolution No. 507 of 18 July 2024, a field of divergence has emerged from the discourse of “public promotion”. Its central narrative defends a greater breadth, variety, and effectiveness in the forms of institutional action and State responsibility to strengthen a forest management that permits not only the SFM of native vegetation, but also the resolution of broad environmental problems such as deforestation and the conservation of the “Caatinga biome” – aspects that were not covered by the normative scope of Conama Resolution no. 507 of 18 July 2024.

This discourse is based on arguments that the norms that have regulated SFM over time constituted a techno-bureaucratic conception of institutional action, which did not result in the desired “simplification”. This was because it generally only permitted the formal facilitation of some administrative procedures, without emphasising how the land-tenure and social characteristics of potential producers result in different levels of capacity to deal with the legal implementation of an SFM plan (Faggin *et al.*, 2017; Lucena, 2022).

However, the “public promotion” discourse had little influence on the outcome of Conama Resolution No. 507 of 18 July 2024. According to the approved Resolution, the main measure that could result in differentiated treatment based on land-tenure conditions is the possibility of having a single annual production unit within the management area on rural properties smaller than one fiscal module, or on rural properties with an area between 1 and 4 fiscal modules, provided that, in the latter case, it does not exceed 35% of the property’s total area - § 5 of Art. 4 of the Brazilian National Environmental Council (Conama) Resolution (Conama, 2024).

We argue that the main reason for the lesser influence of the “public promotion” discourse lies in the fact that an imbalance of power was established in the process of drafting and debating the Resolution. The Working Group was primarily constituted by civil servants based in the Ibama (Brazilian Institute of Environment and Renewable Natural Resources) superintendencies of the Northeast States, and the “broad discussion” of the Resolution’s final proposal included only representatives from the state environmental agencies. It was only at the public discussion stage of the Resolution (broadcast on YouTube) that the other local actors, considered to be those with activities related to the sustainable use of the biome’s forest resources, were able to present their narratives and arguments on the topic (Ibama3, 2021a).

This imbalance of power, present in the development of institutional mechanisms to regulate and encourage SFM, is a characteristic that has existed since the first standardisation initiatives were carried out in the 1980s. Faggin and Behagel (2017) recall that the strategies for implementing SFM in the Caatinga are based mainly on the results of an FAO initiative, which went as far as setting up an office in Brazil to begin a project in the Northeast focused on producing firewood and charcoal for energy use. According to these authors, this was a “top-down” approach, as local populations were not initially involved in the process.

In this scenario, the interplay of social power relations between international organisations, the federal government, and market actors has prevailed in the shaping of research, policies, and SFM implementation strategies. Therefore, it has been recognised that the current “techno-bureaucratic” approach has entailed the exclusion of local populations from the elaboration of forest policies applicable to the Caatinga, resulting in a low legitimisation of SFM by these actors, as their needs and interests have not been considered (Faggin *et al.*, 2017).

Concerning the normative propositions that deal with the thematic field of “forest production”, we highlight the existence of two discursive coalitions that are part of the historical process of the debates concerning SFM: a) bioenergetic SFM and the strengthening of local industries, and b) sustainable diversification of forest production.

Although it has divided the opinion of experts and forestry policymakers over time, we find that the bioenergetic SFM discourse is predominant in its power to influence regulatory policies, ultimately leading to the institutionalisation of this discourse.

To a large extent, this is also a reflection of the imbalance of power between different actors who contributed to the construction of this institutional reality, since it is a settled understanding that the predominance of the bioenergetic SFM discourse is a result of the greater influence of national institutions and international organisations that recommended it as a way of providing a sustainable energy supply for consumer sectors and, at the same time, combating the deforestation (and associated environmental problems) caused by the disorderly exploitation of firewood and charcoal (Faggin; Behagel, 2018; Faggin *et al.*, 2017).

The founding arguments of the bioenergetic SFM discourse are based on estimates indicating that up to 80% of the energy demand of local industries and 20 to 30% of the regional energy matrix is supplied with biomass obtained from native woody vegetation (Coelho Júnior *et al.*, 2018; Riegelhaupt; Pareyn, 2010; Riegelhaupt *et al.*, 2017), and that although the potential supply of energy biomass exceeds demand, legal sources provide on average 21% of this total – varying between the states of the region from 7% to 60% (Riegelhaupt *et al.*, 2017).

A typical example of this discourse’s predominance in the formal regulation of SFM is Ibama’s Normative Instruction No. 12 of 25 June 2009, which, unlike federal normative instructions No. 1 of 6 October 1998 and No. 3 of 4 May 2001 (both issued by Ibama), was intended to exclusively regulate bioenergetic production through SFM (Faggin *et al.*, 2017; Lucena *et al.*, 2023). In this context, bioenergetic SFM has been proposed as a way of overcoming extractivism and the illegal exploitation of firewood and charcoal (Bichel; Telles, 2021), an understanding that now aligns with discourses arguing for the need for sustainable regional development.

However, this does not mean that this historical process occurred without the presence of contrasting narratives and discourses. In this dynamic, the actions of local actors and the demands of social and institutional movements stand out. Since the early 1990s, these have advocated for the development of effective strategies that enable the coexistence of rural populations with semi-arid conditions and the strengthening of productive and ecosystemic systems through the multiple and sustainable management of native vegetation (Faggin; Behagel, 2018; Faggin *et al.*, 2017).

These discourses that propose the “sustainable diversification of forest production” demand, mainly, a consolidated and legitimate regulation of forms of silvo-pastoral SFM. These are considered an indispensable alternative for regional livestock farming and for the productive maintenance of smallholders, as it is understood that forage biomass from woody species is an important food source for cattle, goat, and sheep herds (Lucena *et al.*, 2023). This understanding is based on the principle that, in the socio-ecological context of the Caatinga, livestock farming has high levels of social legitimacy and is strongly linked to highly legitimised local cultural values associated with historical processes representative of social practices that symbolise social and financial success (Faggin *et al.*, 2017).

Even if it is a subject that will still occupy the centre of many debates and controversies, the institutionalisation of the discourse we have termed “sustainable diversification of forest production” was possible, mainly, due to the consolidation and dissemination of discourses that advocate for multiple forms of SFM and to the gradual integration of the actors who represent these discourses into the process of producing institutional norms.

In contrast to the identified divergences, the common narratives and discourses argue that SFM is a productive strategy capable of providing a way to overcome the extractivist mode of forest resource exploitation. This is still predominantly represented by the irregular exploitation of firewood and charcoal, by traditional practices of using natural pastures, and by the conversion of areas covered by native vegetation into artificial pastures, which are frequently cited as drivers of natural resource degradation and the reduction of ecosystem productivity.

Thus, for example, when considering that the industrial sector’s demand for energy biomass generates a permanent concern about the deforestation that may be associated with illegal and extractivist supply, bioenergetic SFM is proposed as a solution. In addition to promoting the reduction of deforestation, it contributes to the generation of employment and income (for both forest management and industry workers), guaranteeing, legally and sustainably, the raw materials necessary for industrial operation and local development.

It is also argued that bioenergetic SFM is a way not only to combat the deforestation associated with the supply for industries and commerce, but also to contribute positively to solving broad-scope environmental problems, such as climate change, biodiversity conservation, and desertification.

Similarly, silvo-pastoral SFM is proposed as a way to ensure not only the economic viability of regional livestock farming but also as a way to guarantee forest conservation and the perpetuity of the forage productivity of managed forests, which would be achieved by adopting techniques that aim to promote environmental sustainability (Araújo Filho, 2013; Cavalcante *et al.*, 2013; Hardesty *et al.*, 1988).

The common understanding of the socio-economic role that SFM and forest management in the Caatinga play in achieving better levels of socio-economic development reflects a consensus that formed from the complementarity of the discourses proposed by the two coalitions in the “State and administrative action” thematic field, even though their narratives were, at first analysis, contrasting.

A relevant common narrative for the actors is that, by defending SFM as a means for sustainable regional socio-economic development, they argue against maintaining a vision in which the Caatinga is referred to as a “‘forgotten biome’ or ‘invisible biome’,” in reference to the discourse that considers the region as underdeveloped or lacking in economic alternatives.

The limitations of discourse analysis include the fact that the researchers’ subjectivity cannot be entirely eliminated, which can lead to certain omissions and flaws in the identification and interpretation of units of analysis. Furthermore, the analyses are limited to what institutions or actors choose to produce, publish, and make public, which may result in a discursive simplification of the phenomenon

being studied. For this reason, research of this nature is more suited to an initial approximation and a theoretical-qualitative understanding of phenomena (Borioni; Sanches, 2023; Brites, 2020).

Furthermore, the identification of narratives and discursive coalitions regarding SFM and forest management of the Caatinga involved in producing Conama Resolution No. 507 of 18 July 2024 was limited by the variety and degree of participation of the actors who took part in the process. Thus, in discussions of future policy proposals, expanding the participation of different actors will allow for the emergence of new narratives and discursive coalitions.

7 FINAL CONSIDERATIONS

We found that the drafting process of Conama Resolution No. 507 of 18 July 2024 was marked by the presence of discursive coalitions proposing narratives that were at times complementary and at other times contrasting regarding SFM and the forest management of the Caatinga's native forest resources.

These discursive coalitions can be situated in two distinct thematic fields: a) discourses that proposed to influence the production of norms intended to underpin the forms of State and administrative action; b) discourses aimed at influencing the production of norms intended to regulate the productive objectives to be achieved by SFM.

In the case of the thematic field we named "State and administrative action", coalitions whose discourses could, at first analysis, be considered contrasting were predominant. The first coalition elaborated narratives in which "normative simplification and the alignment of administrative action" should be provided to overcome "bureaucratic" hurdles that would impede the dissemination and implementation of SFM plans. The second coalition, in turn, created narratives concerned with "public promotion", proposing a "new vision" regarding the State and administrative action necessary for greater effectiveness in forest management and greater success for SFM. According to the narratives of this second coalition, command-and-control actions are not sufficient to achieve a forest management capable of tackling the environmental problems related to the Caatinga's forests, as it is understood that greater state responsibility is needed in outlining a forest policy that confronts the structural socio-economic and institutional conditioning factors, which are considered an impediment to sustainable management and the SFM of forest resources.

Despite the presence of the two discursive coalitions in the "State and administrative action" thematic field, "public promotion" was a discourse that had little influence on the Resolution's debate process, since, historically, the production of policies and norms intended to regulate SFM has been marked by the predominance of actors who represent a techno-bureaucratic approach.

In the case of the thematic field we have named "forest production", coalitions were formed whose discourses proposed distinct objectives to be achieved by SFM. The first coalition elaborated narratives that advocate for "sustainable bioenergetic production", in which firewood and charcoal from SFM are the way to sustainably and legally meet the energy demand of the industrial sector in the Northeast region. The understanding is that, as firewood and charcoal are primary energy sources for the industrial sector, by guaranteeing this demand is met, legally and sustainably, the aim is to strengthen the industrial sector and provide greater dynamism to the local economy. In turn, the second coalition understands that SFM should not only produce bioenergy but also guarantee the "sustainable diversification of forest production", as it is conceived that native forest resources are indispensable for the maintenance of other economic activities, notably traditional livestock farming. This discursive coalition was successful in influencing the normative content of the Resolution, as permission for silvo-pastoral SFM in timber management areas, according to specific technical criteria, was included in the final version of the Resolution.

However, SFM focused on bioenergy production (firewood and charcoal) continues to be the main discourse motivating the “forestry agenda”, still occupying the centre of institutional action related to SFM in the Caatinga.

Despite the identified divergences, many common narratives ran through the coalitions and encompass the traditional environmental, economic, and social aspects associated with the discourse of sustainable development.

Therefore, with SFM, it would be possible to supply, legally and sustainably, the raw materials necessary for the functioning of the industrial and livestock sectors, resulting in the generation of employment and income and in social advances. Simultaneously, it would be possible to achieve environmental sustainability, as it is expected that the use of adequate management techniques will guarantee forest (and biodiversity) conservation, the mitigation of climate change, and coexistence with desertification.

One of the main common narratives identified is the idea that, by providing means to guarantee or increase the productivity of forest resources on a sustainable basis, it is possible to overcome the predominant extractivist mode of production and, thus, promote environmental sustainability and sustainable regional development.

The debates and the creation of public policies aimed at ensuring sustainable management alternatives for the native vegetation of the Caatinga Domain require an expansion of the range of participating actors in the process. This means there is a need to include representatives of social movements who present alternative visions on the sustainable use of forest resources, NGOs, and members of academic and research institutions.

NOTES

1 | In its general usage, the term Caatinga refers to the various types of native vegetation predominantly found in the semi-arid region of northeastern Brazil. In geographical terms, the Caatinga is primarily characterised by Seasonally Dry Tropical Forest and Woodlands (SDTFW), which cover an area of 849,516 km². Nonetheless, other native vegetation formations are also present, such as savannas, tropical rainforests, and rocky campos (Queiroz *et al.*, 2017).

2 | Brazilian Ministry of the Environment

3 | Brazilian Environmental Federal Agency

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