

# Climate ethics, climate (un)justice and ethical-political disputes in the Brazilian Payments for Environmental Services

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**Abstract:** From the perspective of climate ethics, this article proposes to analyse the Payments for Environmental Services (PES) at the local (case study in São Paulo) and national (National Plan for Payments for Environmental Services) dimensions. The practices observed in these Brazilian political arenas were assessed via content analysis; From the guiding principles of political action, we analyse the dynamics of public policymaking actors in the light of categories such as planned naturalness, decision-making plurality, generational benefit, energy location and access to knowledge and material (PLANB Index). The final considerations refer to the urgency of public climate policies aligned with a normative ethical horizon, which must consider local perspectives as the starting point that helps the fulfilment of multilateral global agreements.

**Keywords:** Climate ethics; climate justice; ethical-political disputes; payments for environmental services; brazilian national PES policy.

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## 1. Introduction

The vertiginous increase in the concentration of greenhouse gases (GHG) in the atmosphere, such as carbon dioxide (CO<sub>2</sub>), results in greater retention of heat and, consequently, changes in global temperatures and atmospheric circulation patterns. The effects resulting from those changes, such as temperature extremes and changes in periods of drought and precipitation, impact socioecological systems in various ways and intensities (MILANEZ; FONSECA, 2012).

Despite the strength of this theme and the urgency to seek “solutions motivated by ethical principles [...] and moral arguments” appropriate to climate effects, studies with an approach to environmental ethics and its relationship with politics are still developing (TREMMELE; ROBINSON, 2014). This article discusses the connection between climate ethics and normative effects in the Brazilian political arena in two dimensions, the Brazilian National Policy for Payments for Environmental Services (PNPSA in Portuguese) – and a case study in São Paulo. That relationship is demonstrated from the theoretical-methodological and normative framework of climate ethics through the articulation between the reflective plans in the perspective of ethical principles and their normative effects from the political perspective of the moral content revealed by the categories used in this work.

In communities and regions with vulnerabilities, such as low-income populations, small farmers, and discriminated racial segments, the implications of climate change add to aspects such as food insecurity and limited access to health, which make them more intense (IPCC, 2018). In this context, the term climate justice is mobilised because it refers to differences in levels of exposure to such impacts and calls for policies and initiatives, guided by the ethics of human rights, that reduce the vulnerability of these groups (MILANEZ; FONSECA, 2012).

In ethics, different reflective theoretical approaches imply the normalisation of these policies differently (HEATH, 2021). The link between the reflective and normative plans is inherent. The principles of climate ethics, such as planned naturalisation and intergenerational benefit, are inseparable from the implications, both in the formulation and implementation of these policies, and can lead to a reduction or expansion of inequalities and, consequently, the realisation of climate (in)justice (FLORIT, 2019). If the effectiveness of climate policies fundamentally permeates ethical issues (CANEY; HEPBURN, 2011), then how to overcome the ‘old climate paradigm,’ based on the development of GHG emissions that affect the climate and exacerbate inequalities, to achieve the goals of the Paris Agreement and reduce inequalities at local-regional level?

The Paris Agreement, signed in 2015 by the member countries of the Climate Convention, includes principles and rules with the proposition of environmental effectiveness and social equity, which are also guided by measures of an economic nature, associated or not with regulatory instruments and public policies, for the conservation, recovery, or compensation of environmental services (UNFCCC, 2015). Furthermore, the Agreement establishes that countries must self-determine their national contributions (NDC — Nationally Determined Contributions) (Article 4) via mitigation measures to

reduce GHG emissions, as well as adaptation measures (Article 6) (UNFCCC, 2015). One of the support mechanisms for complying with the Brazilian NDCs, which appears in the updated version of the country's first declaration<sup>1</sup> is the Payment for Environmental Services (PSA). However, this alone does not guarantee the necessary change to mitigate the effects of the climate.

PES programs create mechanisms to assign values to ecosystems, especially monetary values (however, RINCÓN et al. 2019 discuss the importance of including other values, such as relational values, in the monetary calculation) due to the role they play, such as climate regulation via carbon sequestration and incorporate them into decision-making (PASCUAL et al., 2014). Therefore, PES schemes become an instrumented means with the potential to reduce inequalities and expand governance and legal security in the socio-environmental success of achieving global climate goals (PASCUAL et al., 2014).

In this context, cosmovisions whose ethical principles are based on respect for oneself, others, and non-human Nature, such as *Teko Porã* (Guarani) or *Buen Vivir* (in Andean countries), play a central role in the paths towards sustainability (SCARANO et al., 2021). For example, the combined use of annual plantations with native tree species, a common practice among traditional peoples (SCARANO et al., 2021), shades the plantation, reducing the impact of local temperature and improving soil quality, measures of adaptation to the climate while contributing to mitigation via carbon storage (VIGNOLA et al., 2015). Thus, it is essential to propose changes to existing structures and new mechanisms to reduce socio-environmental inequalities (FLEURY; MIGUEL; TADDEI, 2019) based on anthropocentric/ecocentric values (HEATH, 2021) that result in more fair and equitable structures.

### 1.1 In brief: PES as a measure of local protection against climate effects

Environmental, or ecosystem, services are Nature's contributions to human well-being (MEA 2005), which might result in monetary benefits, such as the pollination essential for agriculture productivity, or in aesthetic and cultural value benefits. In this sense, the PES is the mechanism of subsidies (monetary or non-monetary ways) by which the environmental conservation entities receive (provider-recipient) from those who use them (users-payers) through a voluntary transaction (WUNDER, 2005; PAGIOLA; PLATAIS, 2007; CANOVA et al., 2019). In an empirical and no normalised way, PES schemes began in Brazil in 2006, in the municipality of Extrema/MG, and since then, have been implemented in different regions of Brazil.

After ten years of this framework, Brazil ratified the Paris Agreement Convention on Climate Change that predicted, explicitly according to the update of the document in 2020<sup>2</sup>, the PES schemes as the measures to comply with the self-determinations (NDC) and to contribute to the Paris Agreement. In addition, two other vital goals of the Brazilian NDC, focusing on the reduction of 37% of GHG emissions by 2025 and the possibility of 43% by 2030, consist in restoring 12 million hectares of native vegetation

1 - UNFCCC: <https://www4.unfccc.int/sites/NDCStaging/Pages/Party.aspx?party=BRA>

and strengthening the compliance of the Brazilian Native Vegetation Protection Law, or New Brazilian Forest Code (Law n.12.651/2012).

That law disposes of the PES measures as a local mechanism for deforestation reduction and its consequent environmental benefits. Conversely, it demonstrates legal approval problems, including the amnesty for illegal deforestation until 2008 (SOARES-FILHO et al., 2014). Additionally, the law permits the possibility of implementing PES as an instrument. However, it does not indicate the institutional and technical arrangements and funding sources for its implementation, leading to failure concerning reaching its potential of social inequalities alleviation and combating deforestation (CANOVA et al., 2019).

For example, the PES promotes no-fire farming practices in Acre. Nevertheless, the action tends to focus on old settlements with landscapes dominated by pastures and farmers with greater economic stability and market access (ELOY et al., 2012). Equity also involves non-material values, cultural identities, and different knowledge systems, such as from indigenous peoples (RINCÓN et al., 2019). Incentives that neglect all these complexities end up ignoring the vast conservation experience of these populations, besides exacerbating the inequalities (PASCUAL et al., 2014). Fifteen years after the first Brazilian initiative, the National Political for Ecosystem Services was instituted at the beginning of 2021 (PNPSA: lei 14.119; BRASIL, 2021).

The PES and its relationship with the public authority sphere are roughly addressed from the perspectives of natural sciences with geo-scientific implications (PENKAITIS; IMBERNON; DE VASCONCELO, 2020) and do not by a socio-political ambit that the present study seeks to demonstrate.

## 2. Methods

### 2.1 Theoretical framework

This article mobilises climate ethics as a theoretical-methodological framework, and the empirical object is Payment for Ecosystem Services (PES) at two levels (local and national). The content analysis method (BARDIN, 2009) is used, and the categories of socio-climate ethics (SALMI, 2021a, 2021b) guide the content analyses. Finally, a theoretical model was developed (Figure 1).

The different dimensions (Figure 1, in grey) are layers of the theoretical-methodological framework. Worldviews are intertwined with principles, resulting in practices guided (by principles) at different spatial scales (see item 2.4). Theoretical elements can be assigned to each dimension, sometimes interconnecting them (Figure 1, in blue, red, and violet). The empirical objects are distributed in their respective dimensions (Figure 1, in yellow). Based on this model, the present study evaluates the empirical objects: 1) PES in the micro-region of Rio Claro, State of São Paulo, and 2) Brazilian National Policy for Payment for Ecosystem Services (PNPSA). The analytical objects are the narratives produced by local social agents (e.g., small and medium-sized farmers) and by PES policymakers at both levels (national and local).

The methodological approach for data collection involved individual and collective interviews through participatory workshops at the local level (CANOVA, 2016). For the national level, we carried out documentary research on the official websites of the National Congress and the websites of public policymakers<sup>2</sup> in the third sector until the official publication of the PNPSA. These data were analysed using five categories of socio-climate ethics — PLANB Index: decision-making Plurality, energy in the Locality, Access to knowledge and material resources, planned Naturalization, and (intra/inter) generational Benefit (SALMI, 2021b). In the present study, the object of analysis was not the scale — although important — but the intertwinements and implications between the ethical and the political dimensions.

Figure 1 — The theoretical model of political ontoethics in various scales and dimensions



Note: Circles in red express cosmovisions (the ontological dimension) and principles (the ethical dimension) centered on non-humans and humans as a continuum of Nature. Blue circles represent configurations of principles (e.g., anthropocentrism, biocentrism, geocentrism). Finally, violet circles represent practices that emerge from the united ontoethical dimension, intertwined with the political dimension and its different scales. Source: The authors.

2 - The following organizations were also considered: Instituto Manejo e Certificação Florestal e Agrícola (IMAFLO-RA), Instituto Socioambiental (ISA), Article 19 and Coalizão Brasil Clima, Florestas e Agricultura (COALIZÃO).

## 2.2 Local study area

In order to investigate the establishment of Payment for Ecosystem Services (PES) on a local policy scale, the case study was conducted in the micro-region of Rio Claro in the region of Campinas/State of São Paulo, embracing either the proper Rio Claro Town and its Ferraz and Ajapí districts, or some neighbouring municipalities as Corumbataí, Santa Gertrudes, Ipeúna, Limeira, Cordeirópolis and Piracicaba. Brazil has unprecedented growth in sugarcane agribusiness production (CEPAL, 2005; LAPOLA et al., 2014). Over 50% of the cultivated area (in almost 5 million hectares at harvest 2020/2021) and 45% of ethanol distillation of the country's sugarcane are located in São Paulo State, the so-called "sugarcane belt" (UNICA, 2022).

The study area is situated in the transition zone between the Atlantic Forest and Cerrado biomes, where the process of land use and occupation for sugarcane agribusiness at the beginning of the XIX century (DEAN, 1996; GARCIA et al., 2006), but at the beginning of the XX century the region experienced a moderate production growth. However, in the 1970s, due to Brazilian federal incentives for ethanol fuel (Proálcool), the sugarcane expansion gained strength (GARCIA et al., 2006) and triggered a deficit of 50-70% of the forest remnants into private farms (BRASIL, 2012; SOARES-FILHO et al., 2014). As a result, the Rio Claro micro-region holds only 6% of natural vegetation cover (SIFESP, 2009), representing an extensive shifting of the regional landscape and consequently jeopardising the quality and provisioning of ES. Given that, studies must incorporate synergic alternatives of environmental protection, social support, and agriculture activities in the same way that PES schemes propose in theory.

## 2.3 Interviews and climate agents

The collected data from interviews were placed in two steps between 2014 and 2015. The first step was the conducting of individual semi-structured interviews (35 questions) employed with 39 local farmers (potential ecosystem services providers), of which three questions were used for this article: "Have you ever heard about Payment For Ecosystem Services? If yes, what are the region's most significant obstacles to access to environmental compensation instruments? If not, to what do you attribute your unawareness of PSA schemes? The inquiries aimed to point out how much environmental public policy drafting involves the interest of multiple climate agents, one of the assumptions for socio-climate ethics. The complete questionnaire can be accessed in CANOVA (2016).

The farmers' sample was gathered through the farmers union tied to Rio Claro's Agriculture Secretariat (Secretaria Municipal de Agricultura, Secretaria Municipal de Ação Social, Sindicato Patronal Rural, Cooperativa de Produtores) and the contributions of other farmers. They were equally divided between staple food producers, mainly vegetables ( $n=20$ ) and sugarcane producers ( $n=19 + n=1$ , waiver) as the main activity, given that many have livestock production as a secondary activity. In the majority, the interviews were carried out at the agricultural facilities of interviewees, which enabled direct observation of farmers' activities. This approach consists of a source of evidence,

which can assist context comprehension and the phenomenon under study. Nonetheless, some farmers felt more comfortable being interviewed in Rio Claro's Agriculture Secretariat or their households because many live in urban areas.

The participatory method (ROWE, FREWER, 2005; WALLS; ROWE; FREWER, 2011) was used for the second data collection step. The goal was to investigate how dialogue is established among multiple climate agents so that each participant could contribute with their perspective and thus achieve a common denominator for operationalizing the PES. A workshop was proposed with 30 climate agents composed of a heterogeneous group — public, private, and third sector agents — (decision-makers, policymakers, sugarcane, and food farmers, Non-Governmental Organization representatives, and researchers), whom, during the day, explained and discussed critical point view, as well as, some measures to employ the PES on the study area. All farmers interviewed (n=39) were invited to a workshop, but only 15 of them took part.

The workshop was divided into (i) a brief explanation regarding PES concepts and the relationship with Brazilian Legislation; (ii) a random division of the 30 climate agents into four subgroups, and for each was suggested a discussion and collective construction of dialogue and answers about ES, threats to ES, likely ES evaluation and obstacles to PES implantation. Finally, the focal group reorganised themselves for consensus dialogue surrounding the answers.

## 2.4 Nexus between socio-climate ethics theoretical-methodological framework and Brazilian Payment for Ecosystem Services (PES) policies

The thesis that “climate change is fundamentally an ethical issue” (GARDINER, 2017, p.431) shows how climate as a political concept in dispute is complex. Currently, solutions to climate emergencies — for formulating climate policies — are guided by techno-economics logic and principles (OTTO et al., 2020). In Latin America, socio-environmental policies operate guided by neo-extractivist ethics<sup>3</sup> and, therefore, anthropocentric since it does not recognize Nature as worthy of value in itself (ACOSTA; BRAND, 2018; TSING, 2019; GUDYNAS, 2019; KOTHARI et al., 2019). From this perspective, we argue that the discussion of public policies should be directly related to the discussion of cosmovisions and ethical principles<sup>4</sup>.

Ontologies and ‘cosmo-justices’ are crucial for societies to achieve ‘fair and justifiable agreements’ in overcoming socio-environmental conflicts by constructing fair policies (ALMEIDA, 2020). The cosmovision is in a stratum where human and non-human beings perceive, feel, and produce themselves and the world subjectively around them (Figure 1, inner circle, dark grey). From this approach, ethical principles are unfolding (LEFF, 2015; FLORIT, 2019), like *buen vivir* of the Andean regions — principles embodied in the

3 - For a critical discussion about (neo)extractive liberal capitalism and its historical, geopolitical, social, and ecological implications in Latin America, see SVAMPA, 2019.

4 - The Constitutions of Ecuador and Bolivia are examples of normative-political rearrangements with environmental policies formulated, also in the light of the ontoethical dimension that resulted in the consideration of Nature as a subject of rights (GUDYNAS, 2019).

national policies of Ecuador and Bolivia (e.g., rights of Mother Earth) — KOTHARI et al., 2019 (Figure 1, outermost circles, intermediate gray, red, and violet from the ethical dimension). This political action in the world (empirical-political dimension), also called moralities or practices (morals), generates social interactions that can change structures<sup>5</sup> and transform them into fairer institutions (RICOEUR, 1992, italics in original).

In Brazil, Florit (2019, p. 262) understands “socio-environmental ethics [...] as the level of reflection that shapes an interface between environmental ethics and social studies of environmental inequities”. In this context, climate ethics seeks to investigate the relationship between socio-environmental ethics and social studies of climate inequalities (e.g., the increased vulnerability in humans and non-humans due to extreme weather effects on vulnerable groups). Roughly speaking, climate ethics investigates the social effects — on humans and non-humans — of climate change, and this field of study is at the nexus between the reflective and normative levels (TREMMELE; ROBINSON, 2014; GARDINER, 2017; HEATH, 2021).

At the reflective level, socio-climate ethics (SALMI, 2021a; 2021b) broadens the field of socio-environmental ethics and provides an emphasis on climate change and social studies of socioecological equity and inequity; in the analytical level, it implies the study of social relations that result from the consideration, or not, of Nature and non-humans as subjects (INTERNACIONAL CONVIVIALISTA, 2020). Here, when we frame the right of Nature from the perspective of socio-climate ethics, we understand that overcoming the society-Nature dichotomy lies in a social shift from an anthropocentric cosmivision to an ecocentric one (Figure 1, inner circle, dark grey). Finally, on the normative level, it implies assuming that individuals are moral agents capable of acting guided by ethical principles, and thus these agents can produce normative rules (e.g., legal, infra-legal rules, or consistent community practices) in their social environment through the formulation and implementation a variety of social climate policies. In its different scales, such as the PSA, such moral practices can be observed in climate policies.

### 3. Results & Discussion

Evoking the concept of socio-environmental effectiveness of theorists who normatively analyse Payment for Ecosystem Services — PES (MICKWITZ, 2003; SATTLER et al., 2013, BERNARDO, 2016; GRIMA et al., 2016), we introduce an analysis of PES policies, local and national, based on the categories of climate ethics (TREMMELE; ROBINSON, 2014; GARDINER, 2017; HEATH, 2021; SALMI, 2021b).

#### 3.1 PES in the region of Rio Claro/SP and the localised climate (in)justice

From the universe of interviewed farmers, there was an equivalent percentage of those who had already heard about PES schemes (51%) and those who were unaware (49%), with most of the unaware being representatives of staple food farming. None of

5 - We mobilise the theoretical-methodological framework from Ricoeur (1992, p.172, emphasis in the original) that defines “ethical intention” as aiming at the “good life” with and for others in just institutions Ricoeur (1992, p.172, emphasis in the original version). In this way, we capture the agents’ “ethical intention.”



the farmers had participated in any action of PES mechanism construction. In addition, they mentioned that there are obstacles related to the role of state institutions (Table 1). These are agro energy/sugarcane farmers, which transfer production to the sugarcane mills, and consequently, a certification of the product is required to export it. Because of fulfilling those demands, the farmers likely have more access to information and, by extension, awareness of the PES.

**Table 1 — Engagement of interviewed farmers (n=39) in Payment for Ecosystem Services (PES) programs by food sector: food (n=20) and agro energy/sugarcane (n=19), as well as the mentioned obstacles in the interviews. The values are in percentage (%)**

Engagement in PES programs	Interviewed farmers			Mentioned obstacles
	Total	Staple food	Sugarcane sector	
Aware	51	40	58	<ul style="list-style-type: none"> <li>• Lack of formulation of specific laws;</li> <li>• Inadequate management of existing laws;</li> <li>• Lack of funding resources</li> <li>• Lack of incentives to engage in local PES arrangements;</li> <li>• Insecurity regarding the collaboration of local public institutions and agricultural agencies</li> </ul>
Unaware	49	60	42	<ul style="list-style-type: none"> <li>• Lack of mobilization from public institutions</li> <li>• Discouragement for participation due to bureaucratic excesses</li> <li>• Insecurity regarding the local public institutions</li> <li>• A distant relationship with regulatory institutions</li> <li>• Unaware of the mechanisms of PES measurements</li> <li>• Lack of population pressure on state institutions</li> </ul>

Source: The authors

Through climate agent involvement, the data collection methodology permits a broader picture into ground-truth possibilities, which subside the policies realistically and inclusively, rather than including only specific scientific frameworks, ignoring the different possible approaches and their political implications for ecosystem management (SEPPELT, 2011). However, the process of public policy drafting for PES is frequently consummated without involving such primary conditions in the operationalization (CANOVA et al.,

2019), resulting in a lack of information in relevant scales for decision-making, one of the obstacles that constrain a concept to be operationalized (TURNER; DAILY, 2008). The result shows that more than the existence of the PES instrument is needed for people to access it and leads us to the search for understanding the potential causes of non-participation of these local climate agents.

The climate agent's narrative confronted with the normalisation operationalized by the public agents involved in the PES reveals, based on the categories of socio-climate ethics, some (in)justices. Access to awareness concerning the sociotechnical processes of mobilising funding resources for farmers is not a moral practice of local state policy<sup>6</sup>. On the one hand, public agents do not pragmatically release material resources, nor do they foster communication strategies and approximation between the different climate agents in terms of decision-making plurality in the PES arrangements. Thus, restoration can be accomplished (planned naturalisation). On the other hand, farmers and representatives' agents cannot be involved in local PES arrangements because there is too much "bureaucracy".

The farmers who reported PES unawareness attributed their reasons to points like those aware of the term (Table 1). The fact that there are similar reasons among the subsets demonstrates a policy of controlling sociotechnical knowledge (access to knowledge), shielding material resources (access to material resources), and a process of inhibiting plural participation in the various decision-making levels (decision-making plurality) of local PESs implementation processes.

In the present case study, the dialogues flourished from the perceptions of the multiple climate agents, who contributed to state decision makers supplying previous measures in PES projects, through the proposition of regulation of policies in the Municipality Director's Plan and in the Municipality Environmental Law (CANOVA, 2016). Os desdobramentos desse projeto foram implementados na Lei Complementar nº 128 de 07/12/2017, previsto no Art.125 como: "o município poderá utilizar-se do pagamento por serviços ambientais prestados por imóveis localizados na Macrozona de Preservação Ambiental e Uso Sustentável".

The developments of this project were implemented in Complementary Law n. 128 of 07/12/2017, predicted in Article 125 as: "The municipality may make use of instruments of the Payment for Ecosystem Services provided by properties located in the "Macrozone of Environmental Preservation and Sustainable Use".

The participation of farmers in argumentative processes and their engagement with public agents in the decision-making process (decision-making plurality) are fundamental aspects to give consistency and speed to the implementation of the PES at the local scale (energy in the locality). We emphasise that the moral implication with proposals for political regulation, for example, in the local PES schemes, must not be developed unilaterally, only with the participation of public agents.

6 - The premise that political practice is an oriented moral action (TREMMELE; ROBINSON, 2014, HEATH, 2021) refers in our context to a public policy guided by ethical principles — anthropocentric (e.g., liberal, extractivist) or eco-centric (e.g., preservationist, restorative).

### 3.2 The Brazilian National Policy for PES (PNPSA) as climate justice instrument at the macroscale

Aesthetic beauty, cultural importance, and evolutionary significance are non-monetary values of Nature, and they have not been included in the current Brazilian Payment for Ecosystem Services (PES) mechanisms (McCAULEY, 2006; REDFORD; ADAMS, 2009; RINCÓN et al., 2019). The challenge, therefore, is to project a monetary value to an intrinsic value of Nature in terms of PES (McCAULEY, 2006; REDFORD; ADAMS, 2009). On the other hand, PES programs have already demonstrated that they strengthen the relationship between land use and the conservation of natural resources, mainly in Latin America (GRIMA et al., 2016; RINCÓN et al., 2019). From this perspective, PES can provide practical advances and materialise climate justice.

Since 2006, with the “Conservador das Águas” program in Extrema city, Minas Gerais state, other PES programs have been implemented in Brazil, as well as efforts to approve PES laws at different levels, from local to national (PAGIOLA, GLEHN, TAFFARELLO, 2013). However, only in 2021 Brazil approves its Brazilian National Policy for Payment for Environmental Services — PNPSA (BRASIL, 2021). The PNPSA institutionalised and regulates PES programs at the local level, functioning as an umbrella for these initiatives.

The Brazilian PNPSA indicates, in Article 4, an integration with other sectoral and environmental policies, opening the possibility of convergence among them. Furthermore, this article establishes that the PES is an “instrument for promoting the social, environmental, economic and cultural development of rural producers in rural and urban areas, especially traditional communities, indigenous peoples and family farmers” (BRASIL, 2021). In this way, the Brazilian PNPSA can be an opportunity to break with the ‘old climate paradigm,’ overcome the society-Nature dichotomy and reduce GHG emissions and socio-environmental inequities.

However, the normative instruments include the PSA still in an incipient way. It is necessary to detail and operationalize financial, technical, and social mechanisms for its proper execution. Current programs are experimental, territorially restricted, and include few environmental services (e.g., maintenance of local water resources) (GUEDES, SEEHUSEN, 2011; PAGIOLA, GLEHN, TAFFARELLO, 2012). In addition, a few PES arrangements were monitored for socio-environmental effectiveness. These results are difficult to assess and need to be more documented.

For PES arrangements to be considered successful, certain conditions must be met (BERNARDO, 2016): 1) Prioritization of contracts that use ecological, social, economic, and regulatory criteria; 2) Participatory management (in addition to the consultation process) must include procedural fairness, i.e., the approach cannot be top-down; 3) A condition of equity and justice, based on equal rights, in addition to the aspirations of the agents directly involved. However, we argue that ontological disputes affect the political dimension (figure 1), in which conflicts can be observed.

Since 2019, access to information on environmental policies and democratic participation in decision-making spaces, until then, transparent and open, has been

drastically restricted (decision-making plurality). Measures like the one that changed and/or extinguished fifty national councils public structures (access to knowledge) led to “blackouts in environmental databases, delegitimization and structural changes in public bodies responsible for producing data (access to material resources) about deforestation/regeneration Brazilian status” (IMAFLORA; ISA; ARTICLE19, 2021, p.2). According to the federal government, such actions would have the intention of providing “de-bureaucratization and reduction of the power of politically equipped entities [third sector environmental institutions] using ‘nice terms’ to impose their wills, ignoring the law, and purposely hindering the development of Brazil” (BOLSONARO, 2019). We question: “development” for whom? In this way, environmental entities — active until then in decision-making spaces in the public spheres --- were excised from these participatory processes (reduced decision-making plurality) and no longer had access to PES resources (lack of access to material resources). Such a forced “reduction of power” of legitimated and democratically organised civil society organisations (e.g., Imaflora, ISA) is a political action guided by a liberal authoritarian and neo-extractivist ethic.

In addition to the barriers imposed by the federal government, other institutions for civil society participation were extinguished, such as the National Commission for Agroecology and Organic Production (CNAPO) and the Guiding Committee of the Amazon Fund (COFA), or had their structures and resources reduced, such as the National Council for the Environment (CONAMA), Brazilian Forum on Climate Change (FBMC) and Management Committee of the National Fund for Climate Change. We can say that these democratic reductions are materialities, from an ethical and political perspective, of neoliberal neo-extractivist logic.

In January 2021, the publication of the Brazilian National Policy for PES followed anti-democratic practices (according to the lens of socio-climate ethics) due to vetoes in normative contents that could lead to the creation of a possible black box, guided by an “anti-republican and above all disrespectful strategy towards the legislative power” (LIMA, 2021). Examples of this black box strategy include the ‘non-creation’ of a collegiate body for direct deliberation in decision-making processes by organised civil society institutions. Another example is the refusal to create “rules regarding PES contracts designed to provide legal certainty between the parties” (CAMARA DOS DEPUTADOS, 2021, p.1-4).

The multisectoral coalition ‘Coalizão Brasil Clima, Florestas e Agricultura’ also points out that the veto “removes not only the financial benefits and tax incentives (access to material resources and intragenerational and intergenerational benefit) but also the opportunity to promote credits with differentiated interest rates for activities for degraded areas’ recovery” (COALIZÃO, 2021, p.3). Meeting agents from the legislative branch (e.g., House of Representatives) with those from organised civil society (e.g., Coalizão Brasil Clima, Florestas e Agricultura, Instituto Socioambiental) reveals the ontoethical political disputes in the process of formulating this type of public policy. In March 2021, the Brazilian House of Representatives overrode some presidential vetoes, such as an article related to creating a collegiate body to make decisions about resources and one

related to transparency contracts (CONGRESSO NACIONAL, 2021). It can be seen how planned structures at the national scale directly affect the local scale, for example, related to greater or lesser access to financial resources and better tax rates at/with local and national agents/structures.

The political dispute over certain moral practices (e.g., the normalisation or not of spaces for the inclusion of social participation) reveals how climate policymaking (such as PNPSA formulation) can provide the achievement or not of the Paris Agreement goals<sup>7</sup>. These political disputes are guided by ethical principles, as a rule, not explicitly, by the climate policymakers in the analysed Brazilian context.

Although these disputes have specificities (RIBEIRO, 2017), ethical principles can be observed in multiple dimensions (e.g., sociological, ontological, epistemological) and scales (e.g., national, local) through the analytical lens of the PLANB Index. For example, without socio-environmental legal protection, it opens spaces for neoliberal enterprises to operate freely through unlimited exploitation and continuous deconfiguration of ecosystems. In this current, answering the question of how to formulate good climate policies at multiple scales is imperative.

From the perspective of socio-climate ethics and the guiding principles of socially oriented political action, by analysing the dynamics of policymaking agents in two interdependent dimensions (Figure 1), we observe how decision spaces are interconnected locally and nationally and the tensions between plural and inclusive environments and monocratic institutional structures as well its effects on the production of social equalities/inequalities and climate justice.

#### 4. Final Remarks

To demonstrate how the ethical-political framework proposed here helps to reveal the guiding principles of political action that shape the structures of climate (in)justice, we assume as premises of the present study that (i) the principles for compensation of environmental services included in the Paris Agreement can help to overcome the old climate paradigm; (ii) the Payment for Ecosystem Services (PES) as a local climate mitigation mechanism proposed by the Brazilian NDC in 2020 can help to promote the achievement of goals and generate climate justice in practice provided that (iii) the PES is guided by the principles of socio-climate ethics as the normalizable categories of the PLANB Index.

In the local dimension, we show that failures to access knowledge and material resources and the absence of decision-making plurality in the PES decision-making process make it difficult to promote climate justice. That reveals the urgency of moral and political practices aimed at a new utopian horizon of effective ecological and economic transition. At the national level, we show that although the Brazilian National Policy for

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7 - By 2019, Brazil had reduced GHG by 17% (SEEG, 2021), considering 2005 levels. At this rate, the country will reduce by 30% instead of 37% by 2030, according to the current Brazilian NDC from the Paris Agreement (UNFCCC, 2022).

PES (PNPSA) has been instituted, it still needs mechanisms for better operationalization. In addition, in both dimensions, we observe a struggle between different worldviews: the anthropocentric and dominant, guided by a capitalist industrial urban ethic — among other principles, such as liberal, extractive, and authoritarian — and the ecocentric and emerging, which disputes structural remodelling. Thus, we argue that the ability to create new worlds to overcome the old climate paradigm becomes an ontoethical and methodological challenge in apprehending such moral practices at the political level.

There is still a long way to go in seeking inclusive socio-political climate architectures that reduce current social and ecological inequalities at various scales, from local to regional and national to global. Including scientific approaches with an interdisciplinary agenda like the one presented in this work may be one of those possible ways to overcome the dichotomous dogma (e.g., society–Nature, local-global, humans–non-humans). Based on our analyses, we argue that the conceptual framework and elements of socio-climate ethics can be the common thread that leads to the normalisation of climate policies based on ecocentric or even multicentric ethical principles. Otherwise, by neglecting the link between ethics and politics — and consequently the multiple conceptions of Nature — other cosmovisions and inclusive principles such as democratic values are abandoned. Neglecting just and justified agreements leads to dystopian horizons of authoritarian, hegemonic, and sometimes violent logic.

As a result, the reduction of the anthropic effects of climate change and the new climate utopian horizon planned by the Paris Agreement remains at imminent risk of not materialising. In this sense, climate inequalities tend to increase the social and ecological inequality gap. Therefore, the nexus between ethics and politics of the approach presented here is, in the Brazilian climate context — and on other scales — urgent and crucial to lead to new climate utopian horizons.

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# Ética climática, (in)justiças e limitações do Pagamento por Serviços Ambientais no Brasil

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**Resumo:** Este artigo analisa, sob a ótica da ética climática, as políticas de Pagamento por Serviços Ambientais nas dimensões local (PSA em São Paulo) e nacional (Plano Nacional de PSA) e o nexos indissociável entre a ética e a dimensão política brasileira. Essa conexão remete a uma reflexão teórica entre as políticas de PSA e o confronto de princípios éticos, por vezes antagônicos. As práticas observadas nas arenas políticas brasileiras foram avaliadas via análise de conteúdo à luz das seguintes categorias: Pluralidade decisória, Localidade energética, Acesso ao conhecimento e ao recurso material, Naturalização planejada e Benefício geracional (PLANB Index). As análises dos resultados transferem à urgência de políticas climáticas alinhadas a um horizonte ético normativo que reduza as iniquidades sociais e climáticas simultaneamente, as quais devem considerar em termos de escala, as perspectivas locais e o tempo de implementação em sintonia com os acordos globais multilaterais.

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*Artigo Original*

**Palavras-chave:** Ética climática; justiça climática; disputas éticas-políticas; pagamentos por serviços ambientais; política nacional de PSA.

# Ética climática, (in)justicia climática y disputas ético-políticas del Pago de Servicios Ambientales Brasileños

Frederico Salmi  
Moara Almeida Canova  
Maíra C. G. Padgurschi

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**Resumen:** Este artículo propone analizar los principios éticos en la perspectiva de la justicia climática de la política socioambiental por el Pago por Servicios Ambientales en multiescalas. Nacionalmente, con el Plan Nacional de Pagos por Servicios Ambientales, y localmente, con PSA locales. La metodología utilizada fue la de análisis de contenido sobre las prácticas observadas en estas arenas políticas. En la perspectiva de la ética climática y de los principios orientadores del quehacer político, analizamos las dinámicas de los formuladores de políticas públicas, a la luz de categorías naturalidad planificada, pluralidad decisoria, beneficio generacional, localidad energética y accesos (PLANB Index). Las consideraciones finales remiten a la urgencia de la inclusión de la clave analítica de la ética climática, tanto para ampliar el campo teórico de la justicia socioambiental en la perspectiva latinoamericana con la proposición de nuevas categorías analíticas, como empíricamente, para analizar y formular políticas más eficaces a crisis climática.

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**Palabras-clave:** Ética climática, justicia climática; disputas ético-políticas; pago de servicios ambientales brasileños; plan nacional de pagos por servicios ambientales.