

Protected Area, Environmental Education, and The Power to Act: Towards Sustainable Societies?

Gabriela Albuquerque Lucio da Silva ^{I, II, III}
Catarina da Rocha Marcolin ^{II}
Alessandra Buonavoglia Costa-Pinto ^{III}

Abstract: Through the case study of a Protected Area – the Pau Brasil National Park (PNPB) – we analyzed possible connections between the establishment of a socio-environmental council – the Thematic Chamber of Environmental Education (CTEA) – within the PNPB's Consultative Council, and the variation in the power to act of this collective and those involved in its creation and functioning. The primary objective of this research was to contribute to the development of knowledge regarding transitions towards sustainable societies. Data was collected through document analysis and narrative interviews and analyzed through Spinoza's philosophy, triangulation, and discursive textual analysis. We found that the creation of the CTEA resulted in an increase in the group's power to act. However, many challenges still remain. Furthermore, we identified a direct relationship between participation, the power to act, and positive outcomes.

Keywords: Critical Environmental Education; Protected Areas; Spinoza; Public Policies; Porto Seguro.

^I Laboratory of Ecology and Forest Restoration (LERF), Department of Forest Resources, "Luiz de Queiroz" College of Agriculture (ESALQ), University of São Paulo (USP), Piracicaba, SP, Brazil.

^{II} Laboratory of Planktonic Studies and Scientific Dissemination (LEPLAD), Centre for Environmental Sciences, Federal University of Southern Bahia (UFSB), Porto Seguro, BA, Brazil.

^{III} Research and Extension Centre for Environmental Education (NUPEEA), Centre for Environmental Sciences, Federal University of Southern Bahia (UFSB), Porto Seguro, BA, Brazil.

São Paulo. Vol. 27, 2024

Original Article

DOI: <http://dx.doi.org/10.1590/1809-4422asoc00341vu27L5OA>



All the contents of this journal, except where otherwise noted, is licensed under a Creative Commons Attribution License.

Introduction

Various authors, such as Carson (2010), Rockström *et al.* (2009), and Krenak (2020), point to the socio-environmental crisis in which our modern society has placed itself. Constructed upon an unsustainable paradigm that commodifies life, shaping the world as merchandise, this society finds itself in a paradox: it yearns for constant development while being situated on a planet with limited resources insufficient for the speed demanded by the current system. As a response to this predatory scenario, Protected Areas¹ were created (MACIEL, 2011).

However, beyond the creation of protected areas, it is necessary to implement and ensure their effectiveness, which implies the participation of all those involved in their creation and maintenance processes. Thus, the Management Council was instituted in protected areas as an instrument to encourage dialogue and community participation in management (MILARÉ, 2007). According to Laschefski and Costa (2008), participation is not always spontaneous; it is learned and conquered. Therefore, training sessions for the group are essential to empower people, especially those in conditions of greater socio-environmental vulnerability, aiming to minimize the pre-existing hierarchies derived from power relations and social capital.

Critical Environmental Education (EE), aligned with Spinozan philosophy², emerges as a necessary tool for the legitimate functioning of a council. Participation is foundational in an EE practice that seeks to be critical. Spinoza's philosophy aligns with this view, as Spinoza shows that the opposite of participation – passivity – implies not acting in the world, being determined by external causes where external images shape our appetites and desires. The so-called state of servitude would be “allowing oneself to be inhabited by externalities, letting them govern you, and more than that, Spinoza literally defines it as alienation” (CHAUÍ, 1995, p. 67).

The power to act — a concept developed by Spinoza — is about encounters, that is, the capacity to affect and be affected. The greater our ability to affect and be affected, the greater our power to act, and vice versa (SPINOZA, 1983, EIII, post. 1). Some of these encounters, whether between our body and others or between our ideas and other ideas, are beneficial; they are encounters that align. Every good encounter promotes a feeling of joy, which increases our body's capacity or power to act. In negative encounters, the opposite occurs; these inhibit our body's capacity to act (SPINOZA, 1983, EIII, prop 1). What defines our essence is our power to act, which Spinoza calls “conatus.” Conatus is the body's effort to persevere in existence or the effort of self-preservation, which is, essentially, the desire to continue existing (SPINOZA, 1983, EIII, prop 6 and 7). Hence, conatus, or our power to act, is the desire for life, our will to live and exist.

1 - In Brazil, Protected Areas, known as Conservation Units (Unidades de Conservação - UCs), are designated for the protection and conservation of nature. They are established under the National System of Conservation Units (Sistema Nacional de Unidades de Conservação da Natureza - SNUC), in accordance with Federal Law nº 9,985/2000.

2 - The Dutch philosopher Baruch Spinoza was born in 1632 in Amsterdam. The son of Portuguese emigrants, his native language was Portuguese. He was excommunicated from the Jewish community at the age of 24. He died in The Hague in 1677. Spinoza influenced figures such as Nise da Silveira and Machado de Assis. (ESPINOSA, 1983; CHAUÍ, 1995).

By creating dialogues between Critical EE and Spinoza, we aim to analyze the creation of the Thematic Chamber of Environmental Education (CTEA) within the Consultative Council of the Pau Brasil National Park (CCPNPB) through the lens of Spinozan thought. This allows us to explore possible connections between the establishment of a socio-environmental council in a protected area and the increase in the power to act among those involved in its creation and functioning. We aim to contribute to discussions around participation in the PNPB and the implementation of public policies, generating structural impacts in the Porto Seguro region, in the extreme south of Bahia, within the socio-environmental sphere. This research can also provide insights for other protected areas seeking to build a participatory management approach within their territories.

The focus of this study's analysis was on the founding of the CTEA, which followed a process of self-formation from December 2016 to March 2018 (ICMBio, 2018, p. 16). However, we also include observations regarding its continuity and current state. Therefore, we examined the process of the CTEA's formation and activity from December 2016 to June 2022. It is worth noting that this research adopts an interdisciplinary approach, navigating between environmental, social, and philosophical issues. The main objective of this article is to contribute to the construction of knowledge about processes of transition to sustainable societies. The specific objectives include: strengthening the power to act of the CTEA and its members by revisiting their origins to inspire engagement and hope; and assessing whether there was an expansion or reduction in the power to act among those involved in the CTEA's formation process, as well as analyzing how this process occurred.

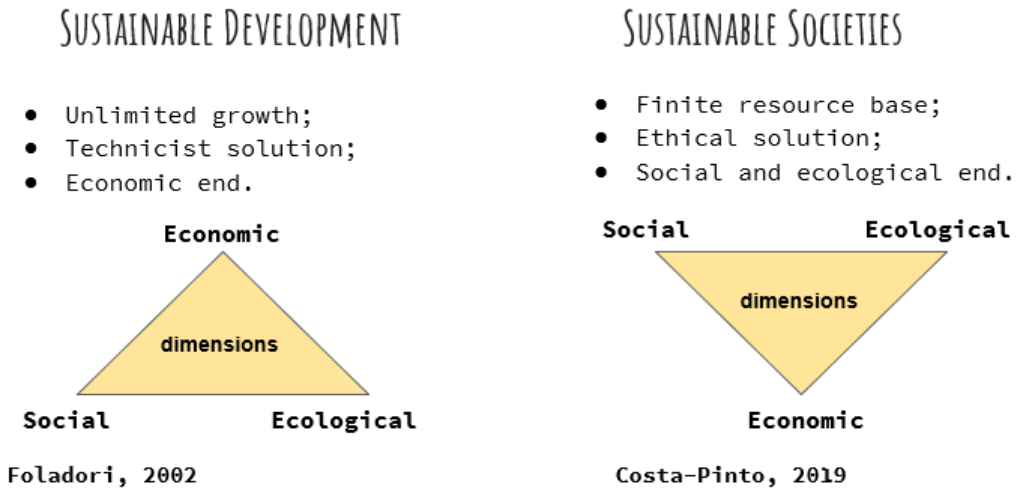
Why Sustainable Societies?

Sustainable societies (SS) emerge as an alternative to the concept of sustainable development (SD). Although SD seems to provide a solution to the ecological crisis, many authors argue that it maintains the status quo, offering technocratic, remedial, and short-term solutions that do not structurally challenge the prevailing model. Sustainable development addresses problems post-facto, rather than a priori, leaving room for major environmental disasters and increasingly frequent environmental crimes, rather than preventing them (COSTA-PINTO, 2019; FOLADORI, 2002).

Parallel to the Rio-92 Summit, the International Environmental Education Workshop took place, during which the Treaty on Environmental Education for Sustainable Societies and Global Responsibility was created. From this treaty, the concept of sustainable societies (SS) emerged (UN, 1992). According to Costa-Pinto (2019), the concept of SS aligns with concerns about environmental injustice. This injustice results from the inequalities inherent in the current neoliberal model of our society, in which the most vulnerable and marginalized groups bear the burden of environmental degradation, while privileged groups benefit from natural resources.

Both models have social, ecological, and economic dimensions, but with different approaches. In SD, the social and ecological dimensions serve as means to achieve the economic dimension, which is the end goal. In contrast, in SS, the economic dimension becomes a means to achieve social and ecological well-being (Figure 1) (COSTA-PINTO, 2019; FOLADORI, 2002).

Figure 1 – Comparison between sustainable development and sustainable societies



Font: Authors, 2022.

Dialogue Between Spinoza's Philosophy and Environmental Education

Just as Spinoza sought to construct an Ethics rather than a morality, critical environmental education aims to build an education that is non-prescriptive and non-punitive but rather emancipatory and liberating. According to Mello (2011), one of the proposals of critical, transformative, and political environmental education is to recover existential meanings that modernity has stripped away from us, transforming humans into alienated beings, where life gives way to production, and humanity is reduced to mere labor.

Jacobi *et al.* (2009) address this civilizational crisis, pointing out how collaborative actions in environmental education can transform this scenario. These authors highlight the challenge of building new conceptions of knowledge, transitioning from “training-knowledge” to “emancipatory-knowledge,” seeking paradigm shifts. Similarly, Spinoza teaches that by increasing our power to act through the knowledge of causes, we can transform reality. This represents an emancipatory knowledge that grants us autonomy to act.

Regarding the current crisis, in which society is trained to fill its cultural and political nihilism with rampant consumption and alienating leisure, Spinoza offers an

Ethics grounded in the search for existential meaning in human life. He advocates for the emancipation of individuals. Both critical environmental education and Spinoza share common objectives and paths: building societies with empowered individuals, capable of transforming themselves and the world around them in line with their dreams.

One of the goals of environmental education, by establishing a new ethic, is to transform our conception of the environment. We often see nature merely as an energy resource at our disposal, reflecting an anthropocentric, speciesist, and utilitarian view. When Spinoza presents us with a Nature where no hierarchy exists among beings, since all are interdependent, he points us toward the path that environmental education seeks to instill in society: a relationship of respect and care for ecosystems and all living beings. According to Costa-Pinto (2012), with this conception of Nature, Spinoza breaks with the developmentalist model, which conceives humans as extrinsic to the trophic chain, positioning them instead as intrinsic to Nature.

Ferraro Júnior and Sorrentino (2011) present Spinozan thought as a way to address a key issue: by understanding the primary causes of conflict, we can turn it into a springboard for innovative actions. When we transform sad encounters into joyful ones, the individual enhances their power to act. Consequently, their strength to change the world increases, positioning them as an active, participatory subject within the web of actors. Thus, participation becomes a fundamental aspect of environmental education, which can be woven through the gain of power to act by the subject, whether individually or collectively (COSTA-PINTO, 2012).

The Development of the Environmental Education Political-Pedagogical Project (PPPEA) and the CTEA of the PNPB

The Pau Brasil National Park (PNPB) was created on April 20, 1999, in celebration of Brazil's 500th anniversary, but it only opened to the public in 2016. The park stands out as one of the largest remnants of the Atlantic Forest in the region that remains in a good state of conservation and for having one of the largest surviving populations of the Pau Brasil tree (*Caesalpinia echinata*) (ICMBio, 2016, p. 104). Furthermore, most of the rivers that drain the PNPB are first and second-order rivers, meaning that their sources are located within this protected area, marking the PNPB as a region of great relevance (ICMBio, 2016, p. 129).

The Environmental Education Political-Pedagogical Project (PPPEA) of the PNPB was developed between October 2016 and April 2018, with approximately 500 people involved throughout the process. Residents of communities surrounding the park (Sapirara, Coqueiro Alto, Fazenda Santa Maria, Vera Cruz, Vale Verde, Arraial D'Ajuda, and Trancoso)³, representatives of public authorities at federal, state, and municipal levels, higher education institutions, schools, social movements, civil society, and private sec-

3 - The main subsistence activities of the communities surrounding the PNPB are agriculture and tourism. Some of the challenges faced due to the proximity to the park include the use of pesticides, urban expansion, improper waste disposal, and hunting of wildlife (ICMBio, 2016, p. 184).

tor actors participated in the process. Maria Henriqueta Andrade Raymundo facilitated the PPPEA's development (representing the Agroecological Settlements Project/PAA – NACE-PTECA/ESALQ/USP) and pointed out the need to create a group of interested and committed individuals who would participate from the beginning to ensure that the PPPEA was built collectively, in a participatory and democratic manner (ICMBio, 2018, p. 16).

The Thematic Chamber of Environmental Education (CTEA) of the PNPB's Consultative Council was the first outcome of the PPPEA's development. The CTEA was created with an “open horizon” mindset, searching for new paths and seeking to “burst the bubble” of the protected area and step out of its “island” (ICMBio, 2018, p. 16).

The PPPEA development process took place within the CTEA framework, utilizing techniques, strategies, and methodological tools aligned with democratic, participatory, pluralistic, critical, emancipatory, and solidarity principles. Throughout this process, the CTEA was strengthened through training activities in political-pedagogical projects and environmental education, called the “CTEA's self-formation,” amounting to 80 hours of activities. These activities were developed and facilitated by the Agroecological Settlements Project – NACE – PTECA/ESALQ/USP in collaboration with the CTEA, while logistical support was provided by the Pau Brasil National Park (ICMBio, 2018, p. 16).

As of June 2022, the CTEA consisted of 11 seats distributed among government institutions, associations, private conservation areas, and universities that have projects and activities linked to the park. Before the COVID-19 pandemic, the CTEA met twice per semester. After the pandemic, only two online meetings were held (one in 2020 and another in 2021), with minimal participation from community members.

Is It Possible to Step Out of the “Island”?

Stepping out of the “island” or bursting the “bubble” is not a simple task. Just as we are immersed in a capitalist society conditioned by market demands, Brazilian environmental policies also fall within this framework and are not exempt from this context (MACHADO, 2020, p. 91). The National System of Protected Areas (SNUC) conforms to market logic. Although the creation of protected areas was initially a response to the capitalist model of excessive natural resource exploitation, the establishment of protected “islands” – that is, protected areas – lends legitimacy to the capitalist mode of production (BRITO, 1995 *apud* MACHADO, 2020, p. 91).

Given that protected areas (PAs) have been instituted this way, as “islands” or “bubbles” of protection, especially in the case of stricter PAs, we must confront the problem to at least mitigate conflicts and inequalities surrounding a PA. To this end, Nolasco (2021) suggests the need for a dialogue that involves communication, not just the transfer of information.

Academia, public agencies, institutions, committees, councils, and chambers seek to promote mobilization; however, in most cases, they fail because they rush into mobilizing the community before it fully understands the topic (NOLASCO, 2021). Thus,

before initiating mobilization around protection and conservation, we must build shared meanings about why to protect a PA, in order to connect different understandings and deepen perspectives on questions such as: What are PAs? What are they for? Why is this area a PA? What are the possible ways to implement and manage PAs that cause more or fewer socio-environmental impacts? What are socio-environmental impacts? (NOLASCO, 2021).

It is also crucial to decode each concept for those who are not from the area. What seems obvious only exists in relation to one's knowledge and experience exposure. Therefore, if the goal is for a PA to be active – not as an end in itself, but as a means to the development of various other activities – it is necessary to demystify the SNUC so that more people can access this bubble, creating as many intersections as possible between different knowledge bubbles until they burst and initiate dialogue. Only then, after dialogue begins and people understand the cause, will they be empowered and motivated to mobilize.

Methodology

This research is a case study (LÜDKE; ANDRÉ, 1986; YIN, 2001) of the CTEA of the Pau Brasil National Park. We employed document analysis to conduct a preliminary diagnosis of the studied area, aiming to identify relevant information pertinent to the study's focus (LÜDKE and ANDRÉ, 1986). The official and technical documents analyzed included the National System of Protected Areas (SNUC), the Treaty on Environmental Education for Sustainable Societies and Global Responsibility, the National Environmental Education Policy (PNEA), the PPPEA, and the PNPB's management plan.

For data collection, we chose the technique of narrative interviews (MUYLAERT *et al.*, 2014). Through narration, it is possible to reconstruct the contexts and actions in which the biographies were built, allowing for an understanding of the causes that provoke changes and the motivations driving the interviewees. In order to analyze the power to act of those involved with the CTEA and the CTEA itself, it was necessary to understand each subject's motivations in its construction: Were these motivations driven by external factors or by an internal, genuine desire? Did the CTEA arise from fear or hope?

We did not interview everyone involved in the CTEA's foundation but rather a small group of intentionally selected individuals based on their roles in the process. We chose to interview four representatives from different communities surrounding the park, three representatives from the environmental agencies responsible during the PPPEA process (one from the PNPB, one from ICMBio at the regional level, and one from IN-EMA, the state environmental agency), and we also included the facilitator responsible for the development of the PPPEA, given that the CTEA's establishment occurred during its elaboration. During the interviews, the need arose to interview a representative from the current PNPB management, resulting in nine narrative interviews. To preserve the interviewees' anonymity, fictitious names were used.

For processing the data collected through the narrative interviews, we applied

Discursive Textual Analysis (DTA), which adopts a phenomenological approach. In other words, the text analyst must set aside their biases and perspectives and strive to use the same lens as those who wrote the texts (MORAES, 2003). This analysis was also conducted from the perspective of Spinoza's philosophy.

To establish relationships between data collected using different techniques, we employed triangulation in our analyses (TRIVIÑOS, 1987).

Results and Discussion

The CTEA was created to serve as a governance body for the PPPEA, which was not intended as an end in itself, but rather as a theme-generator (LAYRARGUES, 1999). The statements presented here are excerpts from the nine narrative interviews conducted.

Rosa: The CTEA is a way to implement the PPPEA, but it is more about continuity. It's not about picking up the PPPEA book and saying, 'Oh, how beautiful! You're just talking about environmental works here.' That's putting it on a shelf in your house and forgetting what you did. No! [...] The CTEA was meant to support the park, conveying the wishes of the surrounding communities, because many people were heard, and everyone has their own way.

Thaís: What motivated me the most [to create the CTEA] was discussing and bringing projects, benefits to the community. That was one of the points that caught my attention the most.

It can be observed that the motivations behind the creation of the CTEA were rooted in the hope of seeking improvements for the community, empowerment of participants, and the desire for the group to continue including the diversity of voices heard during the PPPEA development. Thus, the CTEA was born from the aspiration for a better life, built through environmental education for all those connected to the Pau Brasil National Park. The CTEA emerged from the desire for communication between projects, dialogue among communities, institutions, and the park itself. It was born from the hope of uniting forces, from the desire to "hope."

Regarding the obstacles faced by the CTEA, one key issue noted during the interview analysis was (the lack of) communication.

Thaís: Because if things were moving forward and meetings had been scheduled every quarter, then things... we would be well-evolved and in communication, in terms of communicating, speaking, understanding what is happening. So, two years without anything... without talking about anything, without discussing anything. [...] Sometimes we're even unable to respond to certain things because we no longer have the knowledge, as everything stopped.

This situation leads to a reduction in the power to act among CTEA members, who stop seeing the group as a space where they can be effectively heard rather than just heard out of obligation, following protocols. After the PPPEA's completion and the CTEA's self-formation, the group's meetings became less frequent, aligning with the schedule of council meetings—because it did not have its own internal regulations—with regular meetings every quarter (ICMBio, 2019, art. 30). During the pandemic, meetings became even rarer and were attended only by representatives from universities, federal and state agencies, private institutions, and NGOs, with the exclusion of community leaders. This reveals a significant exclusion of the community, as in the context of isolation, participation means having access to technology, such as a computer and stable, high-speed internet. This exclusion led to dissatisfaction among community members, decreasing their power to act.

Infrequent meetings can turn into encounters where there is only room for unilateral communication. To develop and implement activities together, meetings must be held periodically to organize tasks, discuss them, manage them, and subsequently report them to the group.

Carlos: The Hunting Working Group (GT) and the CTEA should be working together. Preferably, there should be a representative within the GT to facilitate this communication and always bring what one group is thinking to the other. Otherwise, things don't progress. That's the challenge, right? Just like with the PPPEA, it's that thing: it doesn't make sense for various institutions to develop different environmental education projects if they don't communicate. One project could complement the other. [...] How can you have a CTEA trying to work on fauna through environmental education while there is a GT in the same council that does not communicate with the CTEA? The project is dead; it's killing the project at the start.

Here, the importance of communication between different groups and institutions with common goals becomes clear. In this case, the Hunting GT was created by the council, independently of the CTEA, to exclusively discuss hunting issues, which demotivated the group. Both the GT and the CTEA are extensions of the council; however, the former is temporary, while the latter is permanent. Another example of the lack of communication concerns the concession of Pau Brasil National Park:

Rosa: The news I've been hearing about the park made me very sad. I heard that the company has already sold it, BR Parques sold it to a third party, and BR Parques was supposed to explore the park for public visitation for 15 years. Now, within that time frame, they sold it to a third party whom we don't even know. [...] I heard one guy from BR Parques say: 'This park is ours. If you only knew the clause in the contract that was made with us, this will be ours for as long as we want.' When I heard this, I felt so powerless. I thought: 'We fought so hard so it could serve as a source of employment for the

surrounding community, so people could work there [in the park].’ [...] That was the dream. Then the pandemic came, and now there’s this impasse happening, you know? They say it’s no longer BR Parques, that it’s been passed on to a third party. It leaves us feeling uneasy... and it’s upsetting.

Ricardo: That contract is about to expire now. [...] I mean, the company completely failed, and this contract is going to lapse. All signs point to that. They are going to declare bankruptcy. [...] The pandemic messed everything up.

The consequence of this lack of dialogue is that the uninformed person is left at the mercy of tyranny, becoming vulnerable, and thus remains in the realm of imagination and inadequate ideas, losing their autonomy and becoming heteronomous. An uninformed person – someone who is ignorant due to lack of information – has their power to act diminished. For Spinoza, a servant (as opposed to someone free) “acts as ignorantly as possible” (SPINOZA, 1983, EIV, prop 66, exp). Thus, a group struggling with communication issues is unlikely to uphold its ideals.

A second obstacle for the CTEA is the weakening of ICMBio, which resonates in the management of protected areas, councils, and their chambers. ICMBio’s employees have been experiencing “ethical-political suffering” (SAWAIA, 2001, p. 104), both due to the pandemic and because of the dismantling of the environmental policy agenda, particularly between 2018 and 2022.

Miguel: The [eleven] regional coordinations have turned into [five] regional management units. And they did it this way as a means to erode and undermine us, to the point that they justify the end of [ICMBio] altogether and privatize it.

Miguel: Unfortunately, they [the government] are creating Integrated Management Units (NGI), grouping together nearby protected areas to be managed jointly because they are not increasing the number of staff. This also becomes cruel, as one of us will have to be the head of this NGI.

Ricardo: In 2017, the NGI was already being formed. It started in 2017, with 10 years of ICMBio, right? But here’s the thing: either you have a lot of mental fortitude and good sense, or you break down. (laughs) It’s delicate, you know? Very delicate. It could be a way to operate, but it triples the workload for our teams, you understand?

From these statements, we see how the employees of this institution are overburdened, revealing one of the causes for the weakening of the CTEA. The PNPB has five areas of activity with extensive agendas (Figure 2). It is evident that there is a need to increase the park’s staff, as there are five areas and only four employees. Ideally, each area

should be managed by its own team. Each analyst has a specific area of expertise, but currently, the park does not have an analyst trained in “Protection” and “Participatory Management,” where the CTEA is situated. According to one of the interviewed analysts, staff must often extend their workload to issues outside their purview.

Figure 2 – Diagram of PNPB’s areas of activity, showing the location of the CTEA.



Font: Authors, 2022.

These issues that diminish the group’s power to act—such as the lack of communication at various levels, the shortage of ICMBio staff, or the lack of autonomy of the CTEA—must be recognized and shared so that the group can name them, confront them, and thus solve or minimize them.

And What About the Positive Outcomes?

With the implementation of the PPPEA and the creation of the CTEA, several positive developments were reported by the interviewees, which consequently increased the group’s power to act.

To continue the PPPEA’s actions, a second project was developed: “PPPEA of Pau Brasil National Park in Permanent Movement,” also known as “PPPEA in Motion.” During the PPPEA development, activities were conducted as part of the diagnosis and planning, and subsequently, this project bridged the gap between study and practice by implementing activities outlined in the PPPEA.

From there, other outcomes, driven by different individuals, reverberated into socio-environmental actions in the park’s surroundings. One of these was a food security

project led by Professor Dr. Gabriela Narezi (UFSB), which was expanded through the PPPEA to include surrounding communities.

A third outcome was a partnership with Veracel, a cellulose company located near the PNPB. Although the company is mentioned in the PPPEA (ICMBio, 2018, p. 54) and in the park's management plan (ICMBio, 2016, p. 184) as a threat to the PNPB region due to its use of pesticides and poor water resource management, its RPPN (Private Natural Heritage Reserve) has developed environmental education projects with its surrounding communities. Through the PPPEA, these projects were expanded to the communities adjacent to the park. Another positive outcome was the participation of a CTEA member in a course offered by the Ministry of the Environment:

Rosa: Someone said, 'Look, there will be a solid waste course by the Ministry of the Environment. It lasts four months and comes with a certificate from the Ministry of the Environment.' 'Is it remote?' 'Yes.' So, I'm doing it. There's another one on water care; I'm doing that too. And then there's another one on Climate Management related to the Paris Agreement. 'Would you like to take it?' Yes, I'm in. And that's when I started to see the world differently. I was no longer seeing the CTEA just as a resident; I was seeing it with a sense of belonging, living all the problems but in a way that I wanted to do something; I wanted a change (our emphasis).

The increase in power to act is connected to the gain of knowledge (SPINOZA, 1983). The person who increases their knowledge is better able to act according to reason and, thus, becomes more autonomous. Rosa's statement clearly demonstrates how a healthy relationship with the park, facilitated through the CTEA, empowered her, transforming her into a relevant environmental agent within her community. Through knowledge, she developed new worldviews and began to see her role in the fabric of life not merely as a spectator, but as a protagonist. And only when one sees oneself as a protagonist can one desire to take actions that generate change.

The fifth positive outcome was the implementation of the "Continuing Education Course for Public School Teachers for Educational Activities in the Pau Brasil National Park." This course was promoted in partnership with the University of Brasília, through the PPPEA.

Carlos: Professors from the University of Brasília came to train public school teachers from the communities surrounding the park. [...] We showed what the park was, took them to the park. The idea was to show: 'Look, there is a park, a space where you can take students and use environmental education, nature, the environment as an educational theme here.' We wanted to integrate environmental education into the curriculum.

As a result, each teacher who participated in the course developed a project related to the park as part of their final work. Thus, a chain of positive events

was created around the park and the region through the CTEA. An indicator of power to act that we can derive from this situation would be the group's "ability to provide training and capacity-building for people in its territory."

The sixth outcome was the construction of an industrial kitchen in one of the surrounding communities.

Carlos: We used to outsource catering services. Then, we thought, 'No, there are people who can do it. Let's...' Especially with this agroecology proposal that already existed, we went to talk to the APRUNVE folks and said, 'What do you think about preparing food and snacks for the participants? We'll pay you through ICMBio, and you provide the food because we don't want to buy from a restaurant.' They replied, 'But we've never made food for so many people.' 'No problem, there's a first time for everything. Will you do it?' 'Yes, let's go!' (laughs) So they prepared the food for about 200 participants. Over the course of two days, the women of APRUNVE took on the challenge, providing snacks, lunch, and more snacks. After that, other people and institutions also started calling APRUNVE for catering. We would hire them for every council meeting. It kept growing and improving. [...] I think it was this year (2021) or late last year; they managed to inaugurate the women's industrial kitchen.

Here, it's worth highlighting the importance an action can have; how a simple gesture can change an entire established, accommodated, naturalized, and taken-for-granted trajectory. ICMBio always contracted companies to provide meals for its events. Through the PPPEA, many dialogues and discussions about agroecology took place, raising questions that were previously invisible. This collective awakening led to the establishment of an industrial kitchen for APRUNVE, in partnership with PNPB, through the PPPEA and the Agroecological Settlements Project/PAA of ESALQ/USP.

Several indicators of power (COSTA-PINTO, 2003) reveal the increase in the group's power to act, such as:

- g) The group's capacity for critical thinking;
- h) The group's ability to offer its own solutions;
- i) The group's ability to negotiate with other groups, the state, and the market;
- j) The ability to evaluate actions taken and outcomes achieved (COSTA-PINTO, 2003, p. 173).

The acquisition of an industrial kitchen by a surrounding community association was a significant empowering gain, acting as a catalyst for change and transformation that promoted autonomy and economic independence for this community. This aligns with one of the principles of the Treaty:

Environmental education should stimulate and enhance the power of various populations, providing opportunities for democratic changes that empower popular sectors of society. This implies that communities must reclaim control over their destinies (UN, 1992).

Another outcome concerned a solid waste and health project carried out in one of the surrounding communities, led by a CTEA member representing that community.

Rosa: In the environmental education part related to solid waste, we worked here, together with the school students, on a project about Water Day, highlighting the importance of not only selective collection [...]. From there, we moved forward. [...] We mobilized by going door-to-door in people's houses [...] along with the health agents. We would go into backyards, conducting cleanup efforts. Then, with the material, we presented it to the CTEA to further the work within the PPPEA. [...] If the garbage truck comes to pick up trash in the neighborhood, why are we burning waste in our backyards? There's something wrong here. That's when we started working with people on this, and all of this was a result of what we developed with the CTEA, which was extremely important.

An indicator that demonstrates an increase in power is the "group's clarity in building its own space within public policies, which leads to claiming rights rather than asking for favors" (COSTA-PINTO, 2003, p. 173). After being empowered, the group gained the strength to implement public policies, in this case, addressing solid waste and health. The group now understands that these issues are not favors from the state but the rights of every citizen. Another indicator observed in this situation, concerning the individual dimension, was the "individual's ability to act collectively, committed to the community in question" (COSTA-PINTO, 2003, p. 172). This is evident, as Rosa commits to activities for the health and well-being of her territory.

The eighth outcome was the creation of an Educommunication Campaign for Fauna Preservation.

Thaís: Hunters are in the park at midnight; you hear gunshots all the time. I even brought this up in the CTEA, right? About hunting. [...] Around here, everything is sold in Trancoso, and even the police are buyers. [...] Among all the issues discussed in the CTEA, hunting was probably the most controversial.

Hunting is a central theme for a strictly protected area, and it was an issue the community was interested in understanding. The topic was raised by a resident of the park's surroundings who is part of both the CTEA and the park's council. This aligns with the indicator of power to act, "the individual's ability to express their desires to a collective" (COSTA-PINTO, 2003, p. 172). The increase in the member's power to act allowed them to express their desires to the group. However, the Educommunication Campaign, initiated in 2019 and interrupted in 2020, has not yet been resumed, highlighting the

negative impact the pandemic had on the CTEA.

The ninth outcome was an activity carried out with the youth of one of the surrounding communities, which was initiated by a CTEA member.

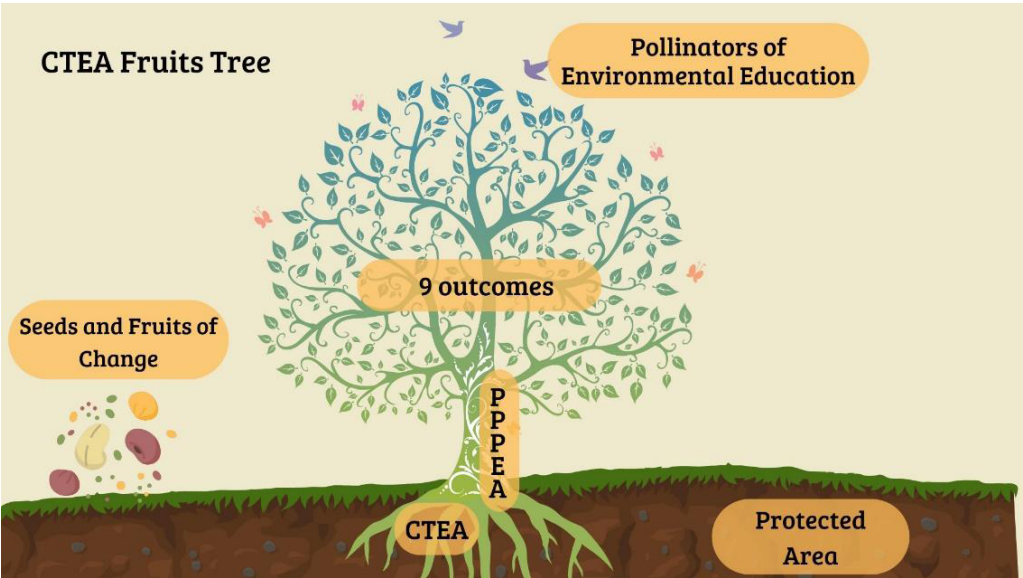
Rosa: [...] Then there was a workshop held with the CTEA and PPPEA folks for the youth. You should have seen the joy of the ninth graders who went [to the park]. [...] That was very, very important.

All the outcomes achieved through the creation and operation of the CTEA comply with Article 13 of the PNEA. This article specifically addresses non-formal Environmental Education, that is, education conducted outside formal educational institutions – such as schools and universities – and instead in public spaces like a protected area. The CTEA thus becomes an essential tool for the PNPB to develop activities aimed at empowering communities on environmental issues and collective defense of environmental quality. Furthermore, the CTEA also helps the PNPB fulfill the objectives outlined by the SNUC.

Other positive developments include an association joining the council through the CTEA and the initiation of a formative process in two other protected areas in the region, which previously lacked managers. In analyzing the process of establishing the CTEA, we observed what Spinoza refers to as chains of causal links: every action, whether large or small, will generate a reaction. Through careful observation, the various reactions that followed the CTEA's creation become clear.

This scenario demonstrates the importance of developing public policies that promote the joint management of protected areas with the surrounding communities. A collaborative and participatory management approach helps a protected area become a space for transformation rather than an isolated island. A protected area can and should serve as an educational space that promotes empowerment and improved quality of life. In this regard, the role of the CTEA in this process becomes evident, acting like a tree (Figure 3) that spreads its branches throughout the territory, producing fruits of change and autonomy, thereby supporting one possible pathway toward sustainable societies.

Figure 3 – The Tree of CTEA Outcomes (Fruits)



Font: Authors, 2022.

Despite these positive outcomes, several obstacles have arisen along the path of the CTEA. Box 1 outlines some issues that may assist in managing the PNPB, distinguishing between problems that can be controlled and unexpected issues.

Box 1 – Identifying Problems That We Can Control and Those We Cannot.

Problems we can control	Problems we cannot control
Lack of communication: Regarding the frequency of CTEA meetings; Between CTEA and the Hunting Working Group (GT); To notify about events and meetings in advance; Related to land issues and a surrounding community; Regarding the PNPB concession.	Pandemic
Logistical aspects of meetings to ensure greater community participation.	Political-environmental dismantling.
Suspension of the CTEA's current primary focus, the Educommunication Campaign on Fauna Preservation	Exit of experienced members from PNPB staff.
_____	Shortage of staff.

Font: Authors, 2022.

Even with these challenges, the CTEA remains active. We observed the group's desire to move forward, to return to a more active role (now that the pandemic is under control), and the love for the group's mission.

Flávia: [The CTEA] needs to be updated, to move forward, right? Because it's stagnant. When something stops, the tendency is that whatever you abandon will eventually perish. Like a house that isn't maintained, it will be eaten by termites or something else. [...] So it's shelved right now. We need people to push it forward again, through the university, or whoever, to reactivate the councils.

Marcos: The CTEA for me is a gift, which means that people are the real gifts. Because what is the chamber? The chamber is the people who make the movement.

Conclusions

Our findings show that the establishment of a socio-environmental collegiate like the CTEA increased the power to act among those involved in its creation, improving the relationship between the protected area and the surrounding communities. This was evidenced by the quantity and significance of the positive outcomes that followed its formation. However, we also found that the main challenge does not lie in forming a collegiate, but in maintaining it. Its creation yielded various results, bringing joy and an increase in the power to act. But continuous movement (becoming) is necessary, as emphasized in the last statements highlighted. Therefore, in addition to creating a collegiate, we must consider tools that ensure its sustainability over time.

Communication can be established through open dialogue, offering unconventional alternatives to ensure the majority of the group is present in information exchange and decision-making processes, and/or advance notification of events and meetings. These could be strategies to minimize many challenges faced by a group striving for sustainable societies. We formulated two equations presenting elements that contributed to either strengthening or diminishing the power to act of the CTEA and its members.

Equation for Low Power:

*Lack of communication + Departure of experienced PNPB members + Pandemic
+ Political and environmental dismantling (overburdened staff)
= Weakening of the group*

Equation for High Power:

$$\begin{aligned} & \textit{Meetings (organization)} + \textit{Recruitment call (increase in PNPB staff)} \\ & + \textit{Communication} + \textit{Desire aligned with action} \\ & = \textit{Strengthening the group} \end{aligned}$$

The pandemic exacerbated an already challenging and complex situation, marked by a transitional phase and staff shortages within ICMBio. The most significant finding from our analysis of the CTEA's functioning was the lack of communication within the group. This is a crucial observation that requires careful attention because if unresolved, it has the power to undermine the group.

We conclude that participatory practices within a protected area can strengthen the group involved and the entire region around the area. A participatory approach transforms a protected area into a vibrant, living territory, fostering the idea that a protected area belongs to its specific region rather than the other way around. The CTEA can be viewed as a reference point, highlighting the need for a transition to other forms of social organization and relations with biodiversity.

During this research, new study possibilities emerged, such as continuing research with the CTEA, considering the new post-social isolation scenario, and a more in-depth analysis of environmental public policies. This study serves as a tool to support building sustainable societies by providing insights in this direction. We believe that everyone should be active participants, as “no one can desire to be happy, act well, and live well without simultaneously wishing to be, act, and live, that is, to exist in action” (SPINOZA, 1983, p. 238). Thus, to exist is to participate, and to participate is to communicate.

Acknowledgements

To the Coordination for the Improvement of Higher Education Personnel (CAPES) for the financial support provided through a master's scholarship (process number 88887.634034/2021); to the financial resource granted through Call No. 25/2023/PRPGI/IFBA, dated September 12, 2023; to the Graduate Program in Environmental Sciences and Technologies (Federal University of Southern Bahia and the Federal Institute of Education, Science, and Technology of Bahia); to the Pau Brasil National Park; and to all the contributors interviewed and involved in this work, for making the author's research possible.

References

CARSON, Rachel. *Silent Spring*. São Paulo: Gaia, 2010.

CHAUÍ, Marilena. *Spinoza, a Philosophy of Freedom*. São Paulo: Moderna, 1995.

COSTA-PINTO, Alessandra Buonavoglia. *In Search of the Power of Action: Environmental Education and Participation in Caiçara Agriculture within the Ilha Comprida Environmental Protection Area*, SP. 2003. 234 p. Dissertation (Master's in Environmental Science)—Postgraduate Program in Environmental Science (PROCAM), University of São Paulo, 2003.

COSTA-PINTO, Alessandra Buonavoglia. *Power to Act and Environmental Education: Approaches from an Analysis of the Experience of the Environmental Educator Collective of Campinas (COEDUCA) SP/Brazil*. 2012. 164 p. Thesis (Doctorate in Environmental Science)—Postgraduate Program in Environmental Science, University of São Paulo & Department of Philosophy, Faculty of Letters, University of Lisbon, 2012.

COSTA-PINTO, Alessandra Buonavoglia. Environmental Education, Construction of Sustainable Societies, and Affects in Spinoza. In: ALONSO, Cláudia Pazos; RUSSO, Vincenzo; VECCHI, Roberto; ANDRÉ, Carlos Ascenso (Eds.). *From East to West: Studies of the International Association of Lusitanists*. 1st ed. Coimbra: Angelus Novus, v. IV, p. 7-30, 2019.

FERRARO JÚNIOR, Luiz Antonio; SORRENTINO, Marcos. Political Imaginary and Coloniality: Challenges to Qualitative Evaluation of Environmental Education Public Policies. *Ciência & Educação*, v. 17, n. 2, p. 339-352, 2011.

FOLADORI, Guillermo. Advances and Limits of Social Sustainability. *Revista Paranaense de Desenvolvimento*, n. 102, p. 5-18, Jan./Jun. 2002.

ICMBio. Chico Mendes Institute for Biodiversity Conservation. *Management Plan of Pau Brasil National Park*. Volume 1. Brasília: ICMBio, 2016.

ICMBio. Chico Mendes Institute for Biodiversity Conservation. *Political-Pedagogical Project of Environmental Education of Pau Brasil National Park and Its Territory*. Porto Seguro: ICMBio, 2018.

ICMBio. Chico Mendes Institute for Biodiversity Conservation. *Internal Regulations of the Consultative Council of Pau Brasil National Park*. Porto Seguro, 2019.

JACOBI, Pedro Roberto; TRISTÃO, Martha; FRANCO, Maria Isabel Gonçalves Correa. The Social Function of Environmental Education in Collaborative Practices: Participation and Engagement. *Cadernos CEDES*, v. 29, n. 77, p. 63-79, Jan./Apr. 2009.

KRENAK, Ailton. *Life Is Not Useful*. São Paulo: Companhia das Letras, 2020.

LASCHEFSKI, Klemens; COSTA, Heloisa Soares de Moura. Social Segregation as Externalization of Environmental Conflicts: The Elitization of the Environment in APA-Sul, Metropolitan Region of Belo Horizonte. *Ambiente & Sociedade*, v. XI, n. 2, p. 307-322, Jul./Dec. 2008.

LAYRARGUES, P. P. Should the Resolution of Local Environmental Problems Be a Generative Theme or the Final Activity of Environmental Education? In: REIGOTA, M. (Ed.). *Everyday Green: The Environment in Discussion*. Rio de Janeiro: DP&A, 1999.

LÜDKE, Menga; ANDRÉ, Marli E. D. A. *Educational Research: Qualitative Approaches*. São Paulo: EPU, 1986.

MACHADO, Rodrigo. *Environmental Education and Counter-Hegemony in the Management of Conservation Units: Contributions in Dialogue with Categories of Antonio Gramsci*. 2020. 391 p. Thesis (Doctorate in Environmental Science)—Postgraduate Program in Environmental Science, Institute of Energy and Environment, University of São Paulo, 2020.

MACIEL, Marcela Albuquerque. Conservation Units: Brief History and Relevance for the Effectiveness of the Right to an Ecologically Balanced Environment. *Revista Âmbito Jurídico*, 2011. Available at: <https://ambitojuridico.com.br/cadernos/direito-ambiental/unidades-de-conservacao-breve-historico-e-relevancia-para-a-efetividade-do-direito-ao-meio-ambiente-ecologicamente-equilibrado/>. Accessed on: Apr. 12, 2022.

MELLO, Maristela Barenco Corrêa de. *An Environmental Education as Aesthetics of Existence and Epistemology of Connections: The Socioeducational Experience of the Florescer Project*. 2011. 295 p. Thesis (Doctorate in Environment)—Postgraduate Program in Environment, State University of Rio de Janeiro (UERJ), Rio de Janeiro, 2011.

MILARÉ, Édís. *Environmental Law: Environmental Management in Focus*. 5th ed. São Paulo: Revista dos Tribunais, 2007.

MORAES, Roque. A Storm of Light: Understanding Enabled by Discursive Textual Analysis. *Ciência & Educação*, v. 9, n. 2, p. 191-211, 2003.

MUYLAERT, Camila Junqueira; JÚNIOR, Vicente Sarubbi; GALLO, Paulo Rogério; NETO, Modesto L. R.; REIS, Alberto O. A. Narrative Interviews: An Important Resource in Qualitative Research. *Revista da Escola de Enfermagem da USP*, v. 48, esp2, p. 193-199, 2014.

NOLASCO, Gustavo. Communication as a Tool for Social Mobilization. Lecture published by the channel Cbh São Francisco, Mar. 2021. Available at: <https://www.youtube.com/watch?v=CSr5qX7L1oM&t=4234s> Accessed on: Apr. 12, 2022.

ONU. *Treaty on Environmental Education for Sustainable Societies and Global Responsibility*. Rio de Janeiro: ONU, 1992.

ROCKSTRÖM, J., W. Steffen, K. Noone, A. Persson, F. S. Chapin, III, E. Lambin, T. M. Lenton, M. Scheffer, C. Folke, H. Schellnhuber, B. Nykvist, C. A. De Wit, T. Hughes, S. van der Leeuw, H. Rodhe, S. Sorlin, P. K. Snyder, R. Costanza, U. Svedin, M. Falkenmark, L. Karlberg, R. W. Corell, V. J. Fabry, J. Hansen, B. Walker, D. Liverman, K. Richardson, P. Crutzen, and J. Foley. Planetary boundaries: exploring the safe operating space for humanity. *Ecology & Society*, v. 14, n. 2, p. 32, 2009.

SAWAIA, Bader Burihan. Ethical-Political Suffering as a Category of Analysis of the Dialectic of

Exclusion/Inclusion. In: SAWAIA, Bader Burihan (Ed.). *The Stratagems of Exclusion: Psychosocial and Ethical Analysis of Social Inequality*. 2nd ed. Petrópolis, RJ: Vozes, 2001.

SPINOZA, Baruch de. *Metaphysical Thoughts; Treatise on the Correction of the Intellect; Ethics; Political Treatise; Correspondence* (Selection of texts: Marilena Chauí). 3rd ed. São Paulo: Abril Cultural, 1983. (Collection: The Thinkers).

TRIVIÑOS, Augusto Nibaldo Silva. *Introduction to Research in Social Sciences: Qualitative Research in Education*. São Paulo: Atlas, 1987.

YIN, Robert K. *Case Study Research: Design and Methods*. Translated by Daniel Grassi. 2nd ed. Porto Alegre: Bookman, 2001.

Gabriela Albuquerque Lucio da Silva

✉ gals.amb@usp.br

ORCID: <https://orcid.org/0000-0002-6709-2064>

Submitted on: 18/03/2024

Accepted on: 02/08/2024

2024;27:e00034

Catarina da Rocha Marcolin

✉ catarina.marcolin@gfe.ufsb.edu.br

ORCID: <https://orcid.org/0000-0003-3701-3772>

Alessandra Buonavoglia Costa-Pinto

✉ alegubcp@gmail.com

ORCID: <https://orcid.org/0000-0002-5711-5453>

Unidade de Conservação, Educação Ambiental e Potência de Agir: rumo às Sociedades Sustentáveis?

Gabriela Albuquerque Lucio da Silva
Catarina da Rocha Marcolin
Alessandra Buonavoglia Costa-Pinto

Resumo: Por meio do estudo de caso de uma Unidade de Conservação (UC) – o Parque Nacional do Pau Brasil (PNPB) –, analisamos possíveis nexos entre a constituição de um colegiado socioambiental – a Câmara Temática de Educação Ambiental (CTEA) – do Conselho Consultivo do PNPB, e a variação da potência de agir deste coletivo e dos envolvidos no processo de sua constituição e de seu funcionamento. O principal objetivo da pesquisa foi contribuir para a construção de conhecimentos sobre processos de transição para sociedades sustentáveis. Por meio da análise documental e das entrevistas narrativas, coletamos os dados e o analisamos através da filosofia de Espinosa, da triangulação e da análise textual discursiva. Constatamos que a constituição da CTEA trouxe um incremento da potência de agir do grupo. Porém, houve e ainda há muitos desafios a serem superados. Ainda, verificamos a relação direta entre a participação, a potência de agir e desdobramentos positivos.

São Paulo. Vol. 27, 2024

Artigo Original

Palavras-chave: Educação Ambiental Crítica; Áreas Protegidas; Espinosa; Políticas Públicas; Porto Seguro.

Unidad de Conservación, Educación Ambiental Y Poder de Acción: ¿Hacia Sociedades Sostenibles?

Gabriela Albuquerque Lucio da Silva
Catarina da Rocha Marcolin
Alessandra Buonavoglia Costa-Pinto

Resumen: A través del estudio de caso de una Unidad de Conservación (UC) – el Parque Nacional del Pau Brasil (PNPB) –, analizamos posibles vínculos entre la constitución de un colegiado socioambiental – la Cámara Temática de Educación Ambiental (CTEA) – del Consejo Consultivo del PNPB, y la variación en la potencia de acción de este colectivo y de los involucrados en el proceso de su constitución y funcionamiento. El objetivo principal de la investigación fue contribuir a la construcción de conocimientos sobre procesos de transición hacia sociedades sostenibles. Mediante el análisis documental y entrevistas narrativas, recopilamos los datos y los analizamos utilizando la filosofía de Spinoza, la triangulación y el análisis textual discursivo. Constatamos que la constitución de la CTEA incrementó la potencia de acción del grupo. No obstante, aún existen muchos desafíos por superar. Además, se observó una relación directa entre la participación, la potencia de acción y los resultados positivos.

São Paulo. Vol. 27, 2024

Artículo Original

Palabras-clave: Educación Ambiental Crítica; Áreas Protegidas; Spinoza; Políticas Públicas; Porto Seguro.