



Stewardship in sacred natural site of Lagoa do Abaeté, Salvador, Brazil

Stewardship *no sítio natural sagrado da Lagoa do Abaeté, Salvador, Brasil*

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ABSTRACT Sacred Natural Sites (SNS) are places that express spiritual values and sacredness of nature. This case study aims to analyze the stewardship role in promoting public engagement against the implementation of a Sewage Pumping Station (SPS) located in the SNS of Lagoa do Abaeté (Bahia - Brazil). Data was obtained through participant observation, documentary and environmental legislation research. Data was analyzed according to the Grounded Theory perspective, and worldview, practices, and discourses were listed as explanatory variables of SNS stewardship. This study showed that part of civil society was defending the SNS and demanding action from public authorities, which proved unable to grasp the SNS's symbolic dimension in its socio-environmental management process. In the analyzed claims process, while the state responded with conventional urban infrastructure projects, community demands for sewage treatment remained aligned with the Nature-Based Solutions perspective. Recognizing the sacred values of nature and their stewardship in heritage research and education has proved crucial to making progress in SNS public management.

Keywords: public engagement; heritage education; protected area; nature-based solutions.

RESUMO Os Sítios Naturais Sagrados (SNS) são lugares que expressam os valores espirituais e a sacralidade da natureza. Este estudo de caso busca analisar o papel do *stewardship* na promoção do engajamento público contra a implantação de uma Estação Elevatória de Esgoto localizada no SNS da Lagoa do Abaeté (Salvador,

Bahia – Brasil). Os dados foram obtidos por meio de pesquisa documental, de levantamento bibliográfico e da legislação ambiental. A análise dos dados privilegiou a perspectiva da *Grounded Theory*, sendo elencadas a cosmologia, as práticas e os discursos como variáveis explicativas do *stewardship* em SNS. O estudo evidenciou que parte da sociedade civil se engajou para defender o SNS e cobrar ações do poder público, que se mostrou incapaz de apreender a dimensão simbólica dos SNS no seu processo de gestão socioambiental. No processo reivindicatório analisado, enquanto o Estado respondeu com obras urbanas convencionais, as demandas comunitárias para o tratamento do esgoto se mantiveram alinhadas à perspectiva das Soluções Baseadas na Natureza. O reconhecimento dos valores sagrados da natureza e dos seus *stewardships* em ações de pesquisa e educação patrimonial se mostrou crucial para avançar na gestão pública dos SNS.

Palavras-chave: engajamento público; educação patrimonial; área protegida; soluções baseadas na natureza.

1. Introduction

Sacred Natural Sites (SNS) have been gaining visibility under the perspective of reconnecting society and nature in many parts of the world (Fernandes-Pinto and Irving, 2018). These enchanted places express ancestral spiritual values and a vision of the sacredness of nature, being considered links between biological and cultural diversity (Fernandes-Pinto, 2017).

Sacred Natural Sites (SNS) are usually cared for by groups and individuals who feel deeply responsible for these places since changes in the ecological conditions of the former affect the latter's well-being (Ferreira *et al.*, 2021). Feeling responsible for caring for resources or spaces of importance to communities has been called stewardship. This concept implies the existence of stewards, who assume responsibility for a common good because they use, exploit, or appreciate some part of the biosphere (Blasiak *et al.*, 2021). This expanded and inclusive responsibility regarding traditional management transcends the simplistic role of the manager as the only person responsible for ensuring the sustainable use of resources (Medeiros *et al.*, 2014). Historically, the term stewardship has been

incorporated into natural resource management, replacing the technical and instrumental assumptions of management by emphasizing the different forms of responsibility in management (Worrell and Appleby, 2000). In other words, it concerns the responsibility of someone (the steward) for the property (things) of another, in the sense that the former is not the owner but the one who takes care of it (Wunderlich, 2004).

Since many SNSs are under threat and subject to different types of pressure, international recommendations have warned of the urgency of promoting concrete actions to protect SNSs. Despite the global debate, knowledge of this problem is still limited in many countries. Furthermore, there are few initiatives and public policies to map and safeguard these areas (Wild and McLeod, 2008). In Brazil, the social relevance of SNSs contrasts with the invisibility of the problem in public management (Fernandes-Pinto, 2017). This lack of recognition causes the State itself to act as an agent of SNS degradation, even when it seeks to promote infrastructure projects aimed at the well-being of the population. This article presents a case study illustrating the conflict generated by the lack of SNS recognition in the basic sanitation projects in a city on the Brazilian coast.

Lack of basic sanitation has led to losses of ecosystem services worldwide (Malone and Newton, 2020; Fonseca *et al.*, 2021). These include regulating services (water quality maintenance), provisioning services (food supply), cultural services (recreational, esthetic, and spiritual), and supporting services (presence of critical habitats and biodiversity, primary production of organic nutrients, conditions, and optimal nutrient cycling) that sustain the capacity of coastal ecosystems to provide regulating, provisioning, and cultural services. In Brazil, there is a deficit in basic sanitation, with only 63.2% of households connected to a sewage network or septic tank linked to the network (IBGE, 2017). Coastal eutrophication caused by anthropogenic nutrient inputs is one of the greatest threats to the health of water bodies (Freitas *et al.*, 2022).

Despite their recognized socio-ecological importance, coastal lagoons are often threatened by the potential environmental impacts caused by the installation of physical structures related to basic sanitation, such as Sewage Treatment Plants (STP) and Sewage Pumping Stations (SPS) (Law No. 14.026/2020) (Brazil, 2020). The overflow of these structures is recurrent and causes significant socio-environmental impacts on the local population, as occurred in 2021 in the dunes of Lagoa da Conceição (UFSC, 2022), a tourist area in Florianópolis. In the municipality of Garopaba (SC), the Federal Public Prosecutor's Office (MPF) has recommended that the licensing agency cancel the environmental license for the sanitary sewage collection system that provided for the discharge of treated effluent into the Lagoa da Encantada. In the cases reported, the community mobilized to remove the structures, using the social control provided

in the National Basic Sanitation Policy (Law No. 14.026/2020) (Brasil, 2020).

Relationships established by the public when defending the common good make them responsible (*stewards*) for its conservation. This feeling of responsibility can lead to processes of self-organization and learning about conservation and restoration (Fisher, 2015). Under the stewardship perspective, we must consider and deal with different actors and their ideals, whether from society or even from the inherent right to life of other species (Medeiros *et al.*, 2014). However, no analysis models highlight the categories used to explain stewardship.

This case study aims to analyze the stewardship role in promoting public engagement against the implementation of an SPS located on the banks of the Lagoa do Abaeté SNS. This SNS is characterized by hosting various African-based religious practices in the city of Salvador, Bahia. Specifically, we sought to answer the follow question: What factors explain stewardship by an SNS?

First, we will contextualize the Lagoa do Abaeté SNS, its threats, and the methods used to collect and analyze the research data. We end with a discussion on substantive issues emerging in SNS governance systems, such as the values and principles associated with African-oriented religions, which guide the actors involved in protecting Lagoa do Abaeté.

2. Materials and Methods

2.1 Lagoa do Abaeté Sacred Natural Site

The Lagoa do Abaeté Sacred Natural Site (SNS) is a typical restinga environment with its dark-colored lagoons interspersed with mobile, semi-mobile, or fixed dunes. Wildlife, such as reptiles, mammals, and birds, are often spotted at the site (Fernandes *et al.*, 2015; Oliveira and Pereira, 2020; INEMA, 2021). Due to their position between ocean and land, coastal beaches and dunes provide services such as raw materials, coastal protection, erosion control, water capture and purification, wildlife maintenance, carbon sequestration, tourism, recreation, education, and research (Barbier *et al.*, 2011; Elliff and Kikuchi, 2015; Malone and Newton, 2020).

The Lagoa do Abaeté SNS has an important historical and cultural value since it is the scene of

many manifestations. These include African-oriented cults that use the site as a depository for their offerings to Oxum, the orisha of fresh water, and the celebrations of Christian churches. Moreover, it is a collection point for sacred herbs, liturgical acts, and cultural and social manifestations (Andrade & Andrade, 2009; Fernandes-Pinto & Irving, 2017; Rodrigues and Copque, 2020).

From this perspective, the washerwomen were striking figures who transformed the white sands of the Abaeté into clothing quarters, forming mosaics of colors, inspiring the works of many artists, such as Dorival Caymmi and Caribé (Teixeira, 2014; 2017). Due to its environmental and cultural attributes, the Lagoa do Abaeté SNS is part of a mosaic of Protected Areas: the State Environmental Protection Area (EPA) of Lagoas e Dunas do Abaeté, the Municipal Metropolitan Park under the same name, which includes the Parque das Dunas, Lagoa Aba-

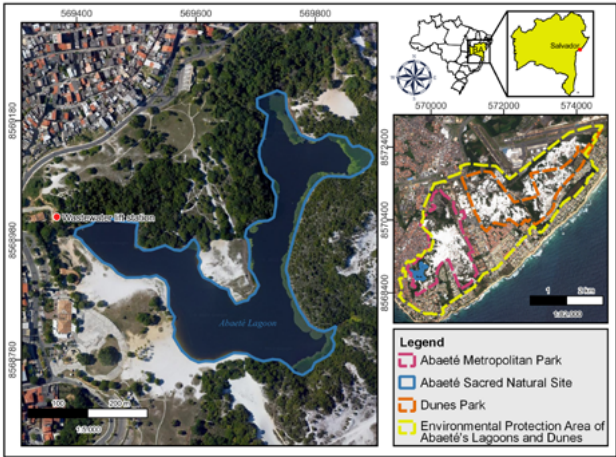


FIGURE 1 – Location of the Lagoa do Abaeté SNS within the EPA of Lagoas e Dunas do Abaeté. Prepared by Muller J. (2022).

SOURCE: Google Earth (2022); CBERS 04 (2022); [Laws and decrees that determined park and EPA polygons]. Datum SIRGAS 2000 UTM Zone 24S. Prepared by Muller (2022).

eté-Catu and Lagoa do Flamengo, and the Atlantic Forest Biosphere Reserve.

The EPA of Lagoas e Dunas do Abaeté covers 1,800 hectares and was created to protect the last remaining system of dunes, lagoons, and restingas still preserved in the municipality of Salvador (Bahia, 1987; Oliveira and Pereira, 2020) (Figure 1).

EPA was re-delimited by State Decree No. 2.540/1993 (Bahia, 1993), which divided it into two zones: the Permanent Preservation Zone (PPZ) and the Controlled Occupation Zone (COZ). The Metropolitan Park is part of the EPA (Bahia, 1993). The APA is managed by the Institute of Environment and Water Resources (INEMA) and has Ecological-Economic Zoning (EEZ) (CEPRAM 2002), a Management Plan (INEMA, 1997), and a management council (INEMA, 2010). The EPA's Ecological-Economic Zoning has delimited a strip around Lagoa do Abaeté as a Visual Protection Zone, allowing only scientific research, environmental education, public visitation, and ecotourism activities. Furthermore, it has allowed the establishment of small structures to support visitation and prohibited any subdivision of land or the suppression of dune-fixing vegetation (INEMA, 2021). Fernandes-Pinto; Irving (2018) e Ferreira *et al.* (2021) have identified Lagoa do Abaeté as a sacred space and/or for religious use, considering international discussions, including those of UNESCO (1998).

In 2013, the Dunas do Abaeté were recognized as an Outpost of the Atlantic Forest Biosphere Reserve for developing the basic functions of biodiversity protection, sustainable development, and scientific and traditional knowledge regarding the Atlantic Forest (RBMA, 2004; Oliveira and Pereira, 2020).

2.2. Threats to the Lagoa do Abaeté SNS

This EPA is located in the neighborhood of Itapuã, within the urban expansion vector of the Metropolitan Region of Salvador (INEMA, 2021), and the pressure for occupation results in many socio-environmental impacts (Fernandes *et al.*, 2015; Rodrigues and Copque, 2020). Itapuã is a heterogeneous neighborhood in its origin and formation. For the most part, we found agglomerations of precarious housing, and, on the other hand, there are subdivisions with large houses belonging to the economic elites close to the waterfront (Teixeira, 2014). According to INEMA (2021), the main environmental conflicts in the EPA include invasions, burning, sand removal and vehicle traffic in the dunes, irregular waste disposal, suppression of native flora, opening of irregular artesian wells, and real estate speculation.

In October 2019, the community was surprised by the beginning of the implementation of a Sewage Pumping Station (SPS) to transfer the effluent from the site to Salvador's sewage system. The construction work began between the Casa da Música, a cultural space with many visitors and activities, and the Lagoa do Abaeté, a sacred place for the neighborhood's inhabitants (Figure 1).

The construction work is the responsibility of the Urban Development Company of the State of Bahia (CONDER-BA) and was carried out with federal funds. After failed attempts to dialog with the responsible institutions, the community denounced the construction work to the Federal Public Prosecutor's Office (MPF), the State Public Prosecutor's Office, and the Bahia Public Defender's Office to stop it.

The Institute for the Environment and Water Resources (INEMA), responsible for managing the EPA, issued a declaration that Environmental Licensing was not required given the enterprise's specific nature. However, INEMA pointed out that the "non-requirement of a license does not exempt CONDER from observing the legal restrictions for interventions in Permanent Protection Areas, the zoning and management plan of the EPA of Lagoas e Dunas do Abaeté, and other environmental norms and standards" (INEMA, 2019, pg. 38). The construction work was considered to be of public utility, "thus justifying its implementation in a permanent preservation area" (INEMA, 2019, pg. 82).

It is worth noting that the process (INEMA, 2019) only contains technical information regarding the project without any reference to the demands of the management council and civil society. In addition to the widespread community mobilization against the establishment of the SPS in a Sacred Natural Site, the construction work was built in violation of environmental legislation (State Constitution, 1989) (Bahia, 1989) because it is characterized as State Heritage, the Atlantic Forest Law (Brazil, 2006), the Visual Protection Zone (CEPRAM, 2002), and the Permanent Preservation Area (Brazil, 2012).

2.3. Data collection procedure

This research used the Case Study method (Meirinho; Osório, 2010) to analyze stewardship in protecting the Lagoa do Abaeté SNS. The data related to the actions of the community, public institutions, and the survey of legal diplomas were

collected between October 2019 and February 2022 through:

- i) Participant observation;
- ii) Documentary research.

The participant observation method (Mónico *et al.*, 2017) was used by one of the authors (C.P. Scharf) in actions related to Lagoa do Abaeté in which civil society was present. According to the guidelines of Richardson (1999), the author identified the social reality of Lagoa do Abaeté, trying to capture the existing conflicts and tensions and identify social groups that have the sensitivity and motivation to prevent the implementation of a sanitation construction work in an SNS. The participant observation method is considered to be the most appropriate way of finding out how people act and interact in a given context in such a way as to enable researchers to compare what they observe regarding the actors in their research (Bernard, 2006). Observation was focused on the interactions and communication attempts between organized civil society and government agencies at the municipal, state, and federal levels.

Documentary research focused on data from the local media and federal, state, and municipal legislation on the Atlantic Forest Biome, its associated ecosystems, and the protection of native vegetation and protected areas. The websites consulted include Planalto (www.planalto.gov.br), the National Environment Council (www.mma.gov.br/conama), the Bahia Legislative Assembly (<https://www.al.ba.gov.br>), and the Salvador City Council (<https://www.cms.ba.gov.br>). Furthermore, the content elaborated for social media and documents produced in interactions to promote the conservation of Lagoa do

Abaeté were also analyzed. These include the Open Letter to the Governor, the Letter to the MPF, the memories of community meetings and the organizations involved, and the documentary “A Lagoa Escura” (Pronzato, 2021).

2.4. Data analysis

Qualitative data was analyzed using the stewardship concept, which is related to the demands for Nature-Based Solutions (NBS), whose actions are more aligned with the worldviews of SNS users. The analytical categories were treated according to the Grounded Theory perspective, which aims to inductively develop a theory from a data corpus originating from multiple sources (Goulding, 1998; Thorne, 2000). Therefore, the characteristics

of each manifestation for the protection of the SNS were analyzed and compared, seeking to produce emerging meanings.

Analysis guided by the Grounded Theory allowed for the creation of three analytical categories of stewardship in SNS:

- a) manifestations of civil society (practices);
- b) worldviews present in the arguments (worldview) and;
- c) speeches of community members expressing stewardship (discourses) (Figure 2).

The discourses, practices, and worldviews reinforce stewardship in SNS, and dialectically, the collective action resulting from stewardship in SNS strengthens the users’ discourses, practices, and worldviews.

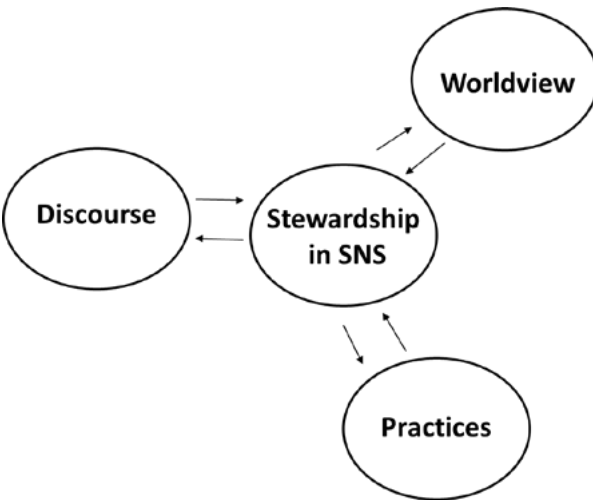


FIGURE 2 – Interrelationship between the analytical categories used to access stewardship in Sacred Natural Sites (SNS).

SOURCE: Prepared by the authors.

3. Results

The civil society defending Lagoa do Abaeté comprises religious and community leaders, residents of the surrounding area (low-income communities), environmentalists, personalities from the neighborhood and the city, cultural producers and groups, artists, photographers, filmmakers, editors, teachers, and researchers. The construction of the SPS in an SNS has led civil society to unite to defend the lagoon and demand action from the public authorities (Figure 3).

In October 2019, regular visitors to Lagoa do Abaeté noticed unusual activity along its banks and discovered that CONDER/BA intended to build an SPS at the site. This event triggered a lengthy process of social mobilization, much of which took

place during the COVID-19 pandemic (Figure 4). With the start of the construction work by CONDER and the lack of explanations from the public authorities, individuals and collectives took action and organized a petition, which resulted in more than 15,000 signatures, demanding a public hearing. Furthermore, they identified legal measures and sought support from sanitation experts to understand the problem and find a solution. At the beginning

of 2020, a complaint with a petition was filed with the Environmental Prosecutor's Office.

Civil society began to denounce and seek collaboration to prevent the implementation of the SPS, generating a series of interactions between actors at different levels and scales of governance (Figure 5).

Civil society also asked INEMA to hold a meeting of the EPA's Management Council for representatives of CONDER and EMBASA to



FIGURE 3 – Public demonstrations against the implementation of a Sewage Pumping Station in the Lagoa do Abaeté SNS (Salvador-BA), organized by civil society from October 2019 to February 2022.

SOURCE: Prepared by the authors.

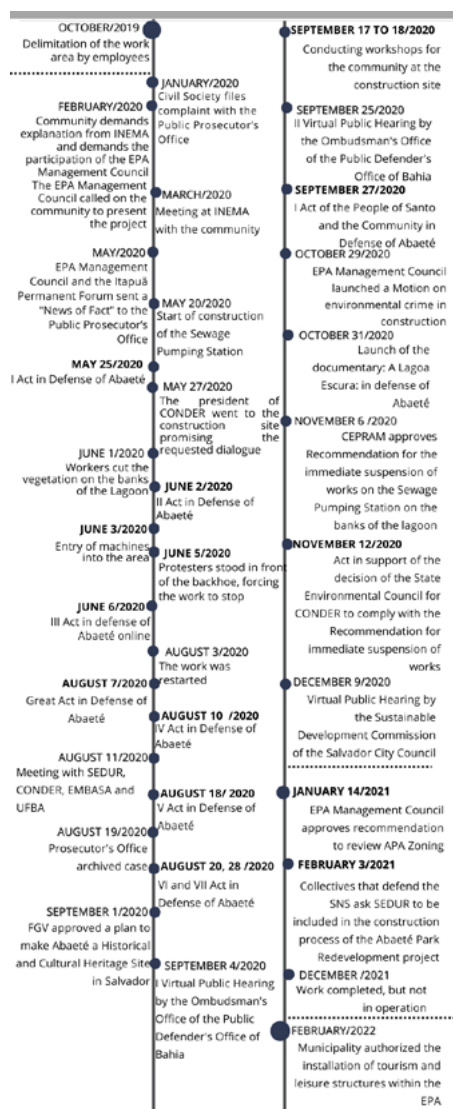


FIGURE 4 – Main milestones of interaction between civil society and the government during the construction process of the Sewage Pumping Station from October 2019 to February 2022. Acronyms: Environmental Protection Area (EPA), Institute for the Environment and Water Resources (INEMA), Urban Development Company (CONDER), State Council for the Environment (CEPRAM), Sacred Natural Site (SNS), Municipal Department of Development and Urbanism (SEDUR).

SOURCE: Prepared by the authors.

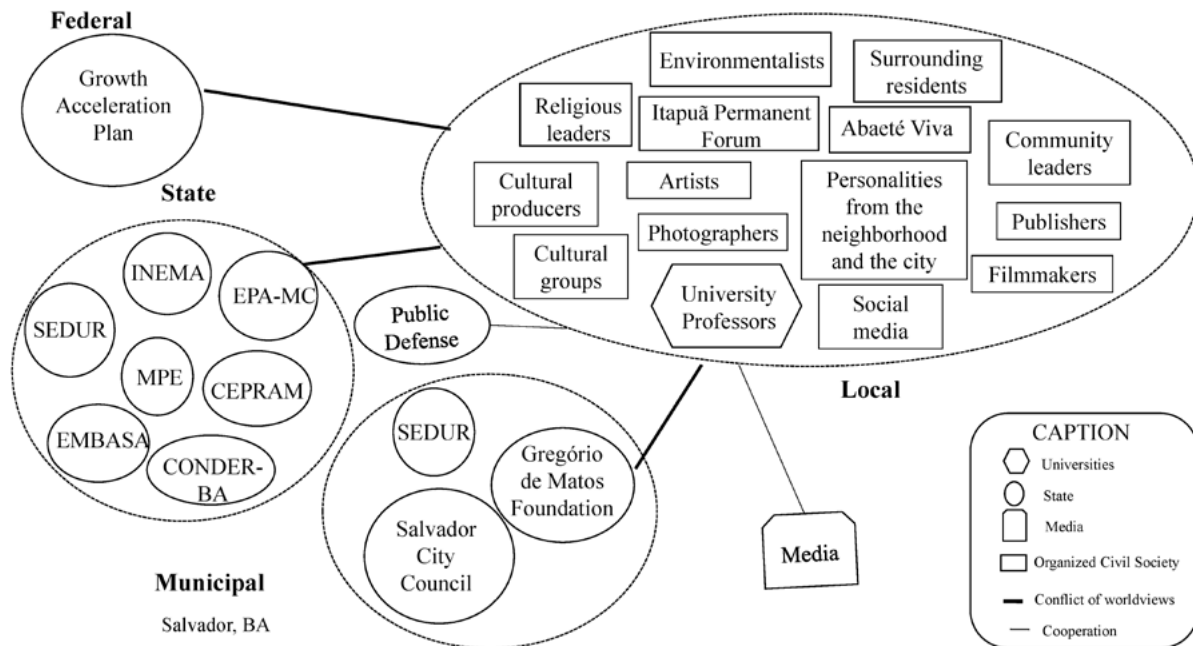


FIGURE 5 – Governing systems that interacted during the construction of the Sewage Pumping Station on the banks of Lagoa do Abaeté. Acronyms: Municipal Department of Development and Urbanism (SEDUR), Institute for the Environment and Water Resources (INEMA), Environmental Protection Area Management Council (EPA-MC), State Public Prosecutor's Office (MPE), State Council for the Environment (CEPRAM), Bahia Water and Sanitation Company (EMBASA), Urban Development Company of the State of Bahia (CONDER-BA).

SOURCE: Prepared by the authors.

present the SPS project. At the meeting, which was also attended by civil society representatives, the institutions explained that the current septic tanks installed in the urbanized area of the Abaeté Metropolitan Park could be percolating and contaminating the lagoon. The SPS would solve the problem, and its location is justified because it is the lowest point in the area (Itapuã City, 2020). The community, armed with studies prepared by university professors, problematized the possibility of overflow and presented options for alternative structures, such as the construction of a wetland tank for effluent treatment and a new location for

the SPS. Both CONDER and EMBASA claimed that it was difficult to change the project, given the short deadline for carrying out the construction work, which was financed with federal funds from the Growth Acceleration Plan (PAC) (2007-2010) (Itapuã City, 2020).

In support of the community, the EPA's Management Council launched a motion on the environmental crime of building the SPS and unanimously approved the recommendation to revise the EPA's zoning. In response to the request from civil society, the Ombudsman of the Public Defender's Office of Bahia, through virtual Public Hearings, summoned

all the agencies involved and socio-environmental movements to present the study of an alternative solution to the SPS. The representatives of CONDER and EMBASA did not attend the hearing. The Technical Chamber and the Itapua Permanent Forum (which represents community groups) denounced the irregularities in the INEMA process to the Environmental Prosecutor's Office (Itapua City, 2020).

Civil society has also filed an Open Letter with the State SEDUR requesting the participation of the collectives that defend Lagoa do Abaeté (EPA and Urban Park) in the construction of the Abaeté Park Requalification project: "Nothing about us, without us!". This group also took part in the presentation of a study to SEDUR showing that the sewage connection to EMBASA's collection network can be made directly, without the need for an SPS, at a cost four times lower than the presented project.

After unsuccessful attempts to dialogue with public organizations, civil society entered a new phase of mobilization, starting a succession of demonstrations to prevent the construction work from continuing and demanding the restoration of the degraded area. These demonstrations resulted in a temporary halt to the construction work. As the construction work continued, the movement decided to paralyze or delay it by occupying the site with artistic, religious, and recreational activities, placing themselves in front of the backhoe, holding *online* events, maintaining the constant presence of groups on the site throughout the days, planting native seedlings on the site, and excavating and holding events with music, singing, and dancing. In some of the protests, the demonstrators were intimidated by the military police, leading to the suspension of the occupation workshops. They also made a documentary denouncing the construction work and

collecting testimonies from *terreiro* peoples, researchers, teachers, residents, and artists in support of preserving the lagoon, its cultural importance, and recognizing the existence of the SNS.

The African-oriented religious community also joined in the mobilization and held demonstrations in defense of Lagoa do Abaeté. More than 500 demonstrators attended the "First Act of the People of Santo and the Community in Defense of Abaeté". This event crowned the union of collectives, adjacent communities, and 53 *terreiros* around Abaeté to safeguard it. For the African-oriented religious community, Lagoa do Abaeté is an ecological sanctuary home to endemic species and ancestral memories. It is a sacred place, the dwelling place of Oxum. It is home to living ancestors. It is the force of God and nature.

Table 1 presents a summary of practices, worldviews, and discourses selected as analytical categories to assess stewardship of the Lagoa do Abaeté SNS. The practices reflect a set of strategies aimed at making claims visible and promoting political influence. The worldviews represent the *stewards' values* associated with protecting the SNS, while the discourses convey the arguments used to raise public awareness.

Both public authorities and users have shown an interest in promoting sanitation. However, they have different visions of how to achieve this. In this case, there are cosmological issues that restrict the interactions required for the governance system to function and whose in-depth analysis allows us to get closer to the problem of the SNS. In addition to being the last remnant of restinga vegetation in the municipality and part of a protected area, Lagoa do Abaeté is recognized by civil society as a sacred space for Evangelicals, African-oriented religions

TABLE 1 – Testimonies and actions of users of the Lagoa do Abaeté Sacred Natural Site through the categories of analysis used to access stewardship: practices, worldviews, and discourses. Acronyms: State Public Prosecutor's Office (MPE), Federal Public Prosecutor's Office (MPF), Municipal Department of Development and Urbanism (SEDUR), Urban Development Company of the State of Bahia (CONDER-BA).

Práticas	Cosmovisões	Discursos
Petition.	Abaeté is an expression of Bahia's culture.	The area is the main access for visitors, people of African-oriented religions, and traditional users.
Request for a public hearing.	Abaeté is a sacred place for African-oriented religions.	"It is part of our ancestry, and it is a possibility for continuity".
Online communication networks.	Abaeté is an ecological sanctuary home to endemic species and ancestral memories.	"For a year now, we have been asking for respect for existing laws and protection and preservation of the Abaeté".
Face-to-face and online events.	The deforested space cannot be used for religious practice.	"We want to ensure that any intervention is discussed with the People of Axé and the local civil society".
Producing a documentary.	The lagoon is the dwelling place of Oxum (People of Axé): Mamãe Oxum owns those waters.	"The current project harms the landscape and promotes soil sealing".
Videos of personalities and artists.	Cultural and environmental protection are integrated.	"The space needs to be maintained and preserved as it is".
Recording the progress of the construction work.	Abaeté is a shelter for living ancestors.	"They started the construction work as if it were nobody's house".
Occupation and stoppage of the construction work.	Abaeté is the indigenous name that taught the black people to protect plants.	"Residents fish and have raised their children on it".
Cultural activities.	Abaeté is our mother who adopted us.	"Is there no other place to build the project without practicing this evil against our sacred space, without practicing institutional racism against our Candomblé people?"
Research into sustainable alternatives.	The power of God and nature comes through the orishas: without leaves, water, and an orisha, there is no life.	"The construction work did not respect the management council. It only communicated". "The management council should engage in dialog and participate in the planning and execution of the construction work".
Socio-cultural studies.	Abaeté is a source of sustenance (fish, shrimp, and fruit).	"It is not because it has been legalized that the construction work is legitimate".
Legal practice.	The White People's technical opinion must listen to the People of Terreiro.	"SEDUR and CONDER manage it as a private construction work, but the environment is public".
Requisition of Listing.	"Abaeté is my part of the world, and I love this place".	
Denunciation at the MPE and MPF.	"The site is the only remnant of restinga we have in the city".	
Creation of a commission.		
Public hearings.		
Sending Open Letters.		

Source: Prepared by the authors.

(where Mamãe Oxum lives), as an ecological sanctuary, home to endemic species [*Aechmea itapoana* (Morawetz and Till, 1981) and *Poecilante itapoana* (Lewis, 1989) (Viana *et al.*, 2006)], ancestral memories, a source of food for families, and an area dedicated to leisure and cultural activities.

During the 405th Ordinary Meeting of the State Council for the Environment (CONSEMA),

a recommendation was approved for the immediate suspension of the SPS construction works on the banks of the lagoon so that clarifications could be made about possible environmental damage and a comparative study could be presented between the current project and the project developed by the university (Bahia, 2020). Nevertheless, the Bahia State Public Prosecutor's Office (MPE-BA) closed

the Preparatory Procedure No. 003.9.41815/2020, which aimed to investigate possible environmental damages caused by the implementation of the SPS. It concluded that the objective was to reduce visual interference in the locality to the maximum level and that the most favorable environmental condition would be to collect the generated sewage in septic tanks through wetlands (A Tarde, 2020).

In support of the community's demands, the Advisory Board of the Gregório de Matos Foundation unanimously approved the proposal to make Abaeté a Historic and Cultural Heritage Site in Salvador. The Sustainable Development Commission of the Salvador City Council also held a Virtual Public Hearing to debate the social movement's demand against the SPS. The majority of civil society participants highlighted the authoritarianism of the state, which made it impossible for society to participate in public works projects.

Despite all the protests and demands for alternatives to basic sanitation, the construction work was completed at the end of 2021. In January 2023, no response was received after requests to EMBA-SA for information on the operation of the SPS. Since 2022, there has been strong pressure from the public authorities to establish new infrastructure services. In February 2022, the municipal government authorized installing sports and leisure facilities on the dunes of the EPA (MPF, 2023), disregarding all the protests of civil society.

4. Discussion

Our results demonstrate the interactions between civil society and public authorities in the dispute over basic sanitation projects for Lagoa do

Abaeté. We hypothesize that some users (stewards) feel responsible for the SNS, which in this case is represented by the “call of Mamãe Oxum”, which expresses a reverence for ancestry and the legacy for future generations. Therefore, the case of the Lagoa do Abaeté SNS mobilizes identity elements of African-oriented religions and illustrates the importance of understanding the values underlying governance (meta-governance) in defense of a common good, such as cosmology and disputed worldviews (Kooiman and Bavinck, 2005). Next, we will discuss the relationship between *stewardship* and public engagement in protecting the SNS, as well as the co-management of cultural heritage.

4.1. Stewardship and public engagement in the protection of SNS

Stewards of Lagoa do Abaeté noticed the inadequacy of the SPS and presented alternative proposals based on the NBS (IUCN, 2020), such as wetlands. They also demonstrated that the solution presented by CONDER, besides impacting the Lagoa do Abaeté SNS, is ineffective. Even though they shared the aim of preventing sewage contamination, a conflict arose due to the disregard for the community's worldview and the lack of dialogue between public organizations and civil society regarding the best alternative for solving an environmental problem. In the case opened with CONDER, for example, only the presence of the EPA is mentioned, disregarding the existence of an SNS and the Peoples of Axé. An important factor in this process was the availability of funds from the federal government (INEMA, 2019) for the construction of the SPS, which does not allow

changes to how the funds are used. One of the PAC's priorities was to invest in infrastructure in areas such as sanitation, housing, transport, energy, and water resources.

Government, in addition to disregarding the worldview of the social actors involved in the process, dismissed environmental licensing, failed to promote a broad public debate (CONAMA, 1997), disrespected the legislation regarding the EPA and its EEZ, which characterized the area as a Visual Protection Zone, and refused to provide clarifications to the commission created, disrespecting the participatory process and the law on access to information (Brasil, 2011).

Community engagement in the protection of the Lagoa do Abaeté SNS has been associated with worldviews that relate to ancestral spiritual values and the sacredness of nature (Kooiman; Jentoft, 2009; Almerigi *et al.*, 2013). These values, which can relate to mountains, volcanoes, caves, rivers, lakes, forests, trees, and rocks (Verschuuren *et al.*, 2010; Anthwal *et al.*, 2010) are considered by human groups to be temples or natural sanctuaries. They are endowed with special energy or strength that distinguishes them from the environment, acting as links between biological and cultural diversity (Fernandes-Pinto and Irving, 2018), which makes these groups feel responsible for their protection. Intangible values are part of the knowledge and worldview of many social groups that form cultural and symbolic links with natural elements (Verschuuren *et al.*, 2010). These links are still poorly understood, undervalued, and neglected in natural resource management by public authorities (Anthwal *et al.*, 2010; Fernandes-Pinto and Irving, 2018).

It is possible to identify the asymmetry of power between the public managers and the community involved, most of whom were low-income people in a particularly precarious economic situation during the COVID-19 pandemic. Civil society has invested time, energy, and resources and faced the risk of Coronavirus contamination to promote actions to denounce the SPS in the SNS. We emphasize that all these factors reinforce the involvement and vocation of this community as *stewards of the SNS*.

Civil society feels responsible and shows a strong sense of belonging to the park (Teixeira, 2014). Those who “live there” want to ensure that any intervention in the lagoon is discussed with the People of Axé and other sectors of local civil society. Researchers and activists have provided the movement with technical information, presenting alternative solutions to the EEE project to the organization responsible for authorizations. The academy and socio-environmental activists have been fundamental in providing support, building knowledge, developing networks, and political mobilization (Teixeira, 2014; Gazalla and Castro, 2016).

4.2. Cultural heritage stewardship and co-management

The stewardship approach requires institutional arrangements from the co-management perspective, articulated with the government, resource users, and other actors involved in the process. The pursuit of reducing power asymmetries in decision-making is one of this perspective's challenges (Medeiros *et al.*, 2014). According to Almerigi *et*

al. (2013), worldview is the articulation of a specific destination; an image of a desired future. The worldview also has an attractive function, and in order to be effective, the vision must be grounded in current reality.

The disregard of public authorities for the cosmology and worldview of the local community of Lagoa do Abaeté has been occurring since the creation of the protected areas (EPA and Metropolitan Park). The demands of social actors who value the SNS as heritage have not been incorporated into preservationist practices (Teixeira, 2017) nor in the implementation of infrastructure construction works. Development strategies have been operationalized without considering the community of Lagoa do Abaeté (Teixeira, 2014). It is worth noting that the government has not yet realized the economic feasibility and richness of the cultural and environmental tradition of the SNS. According to Carvalho (2010), the notion of a place of memory can be an important element in maintaining the identity and personality of a tourist destination, increasing its potential for competitiveness in the market.

Another action that went against the conservation model demanded by civil society took place in 2022, when the government, in addition to implementing the SPS on the banks of the Abaeté Lagoon, began installing sports and leisure facilities in the city's last remaining restinga. However, since 1980, the Itapuã area has been under strong pressure to implement urban projects to meet the demands of tourism and real estate speculation (Oliveira, 2009; Rodrigues and Copque, 2020; Teixeira, 2017). The changes have contributed to the emergence of a feeling of powerlessness and frustration among the most socioeconomically vulnerable population, who

have been excluded from the benefits provided by public policies (Almeida, 2008).

State plays a contradictory role in the territory. It promotes socially inclusive territorial co-management policies, such as the creation of protected areas with their respective management council (INEMA, 2022). However, simultaneously, the state hinders their management through conflicting development policies (Gazalla and Castro, 2016), such as in the SPS. It should be noted that there are contradictions regarding the articulations and overlaps between the EPA and the Abaeté Metropolitan Park. It has also been hampered by conflicting legislation, requiring greater effort to build pacts and commitments (Xavier *et al.*, 2018) and integrating different planning policies.

Sustainable planning of urban areas presupposes coordination between all the players involved in the process (public managers, the business community, operators and receptive agents, and the community directly and indirectly involved) through shared actions and the development of integrated projects to revitalize and reinvigorate the local cultural heritage (Carvalho, 2010).

According to Ferreira *et al.* (2021), there are no protected areas in Brazil whose sacred spaces have been legally registered despite their uses being informally recognized by the population and public managers. This informality generates conflicts that tend to be major obstacles to achieving biodiversity conservation (Anthwal *et al.*, 2010).

In the case of Lagoa do Abaeté, the infrastructure and urban planning construction works disregard the religious communities, and public managers have shown no willingness or ability to meet the community's demands. On the one hand, the mobility of tourists and the enjoyment of urban

and cultural infrastructure tends to be reflected in the increased perception of residents regarding the significance of heritage as a place of memory and everyday experience. On the other hand, cultural tourism without proper planning can contribute to geographical segregation between tourists and the receiving community, as well as the formation of spaces decontextualized from social dynamics (Carvalho, 2010).

For the cultural tradition and the local community to be respected, the SNS of Lagoa do Abaeté must be recognized both in the Management Plan of the EPA of Lagoas e Dunas do Abaeté (INEMA, 1997) and in its EEZ (CEPRAM, 2002), to incorporate cultural and religious manifestations and present actions and delimitations of the area according to its vocation, bringing economic benefits for its maintenance. For example, studies on forest management in India point out that autonomy in drawing up rules at the local level (rather than rules imposed by the government) has been decisive in producing goods and services to support the livelihoods of the local population (Singh *et al.*, 2011).

In Mexico in 2000, Wirikuta (the place where the sun rises and the universe was created) was recognized by the Mexican government as a natural protection area and a sacred site, where a mining company sought to extract silver and zinc. In 2012, the courts suspended the authorization, preventing public authorities from allowing mining activities (Lamberti, 2016). In Hawaii (USA), the construction of a 30-meter telescope on Mauna Kea Volcano sparked an intercultural conflict between native Hawaiians and the International Observatory, as it was to be installed on sacred land. Protests delayed the start of construction, which has been ongoing since 2014 (Molina, 2021). In Salvador, the Pedra

de Xangô, considered a convergence center for numerous *terreiros* that communicate and connect through networks, was completely stripped to make way for a road and a series of condominiums (Silva, 2017; 2021). After significant community pressure, a municipal Environmental Protection Area (EPA) was created at the site.

The EPA's Management Council stands out as a privileged interlocutor to start these discussions since it includes representatives involved in the lagoon's socio-environmental and cultural conservation. The council was created in 2010 (INEMA, 2010) and has been improved over the years to include different representations (INEMA, 2022). However, the African-oriented religions that use Lagoa do Abaeté for their sacred rituals are not represented on the EPA Council, which removes this group from decision-making power over the SNS's management. Thus, the Peoples of Axé are indirectly defended by the following representations: Cultural Association Ganhadeiras de Itapuã, Búzios Institute, the Itapuã Permanent Forum, Guardiões e Guardiãs do Abaeté, Abaeté Viva, and Ateliê Axogbo.

Religious public use in protected areas encourages an articulated view of ecological, social, economic, cultural, and religious aspects. Furthermore, it contributes to recognizing diversity as a component of the social reality present in different cultures (Bensusan, 2014). In order to advance in SNS management, it is necessary to gather information regarding their conservation value and how to integrate them into broader conservation strategies (Dudley *et al.*, 2009).

Therefore, it is important to encourage participatory research and heritage education in SNS with the involvement of stewards. Conventional

research techniques normally applied in surveys carried out in protected areas, such as interviews and focus groups, may not capture the symbolic and intangible aspects associated with conservation. Participatory mapping (Dasgupta *et al.*, 2021) and photovoice (Berbés-Blázquez, 2012; Masterson *et al.*, 2018; Lim *et al.*, 2021) are methods that favor the expression of the territory and strengthen stewardship within different sections (gender, age, and race) in social groups of SNS users.

In this case, the community, in addition to identifying spaces for visitation, can establish which aspects or elements should be emphasized, delimiting the degree of interference of tourism and/or conservation in local dynamics (Carvalho, 2010). These advances have already been made in other SNSs, such as Pedra de Xangô (Silva, 2017) and Parque São Bartolomeu (Teixeira, 2014), in Salvador; Parque Nacional da Tijuca and Parque Natural Municipal de Nova Iguaçu, in Rio de Janeiro (Ferreira *et al.*, 2021). In these SNSs, public managers have had to dialog with the community and create a listening channel to manage conflicts between the objectives of creating protected areas and religious public use.

Through strategies that foster dialogue between public, private, and non-governmental organizations, as well as civil society, the preservation of urban and religious parks can be seen as a broad social development strategy, considering the complexity of the relationships between nature and culture (Teixeira, 2014; 2017). Finally, this study highlighted recurring cases of disregard for social participation by public institutions responsible for the public management of a common right guaranteed by the Brazilian Constitution.

5. Conclusions

Lagoa do Abaeté case illustrates how SNSs manifest a symbolic dimension that is not captured by public authorities and that changes the very logic of the state in conserving natural heritage. The intangible dimension of the socio-environmental conflict exposed the state's limitations in managing contrasting worldviews. Furthermore, it illustrates that, behind the lack of understanding of the intangible aspects of conservation, there can be environmental racism and authoritarianism (unwillingness to show possibilities and lack of adequate response and institutional coordination) that suppress social participation regarding access to the resources available to carry out a construction work of public interest.

Moreover, this research exposed the lack of an urbanization model related to the necessary expansion of basic sanitation based on the NBS approach, especially when community demands are guided by values of protecting natural and cultural heritage (stewardship). The infrastructure proposals from public organizations did not seem to fit in with the worldview of the local social groups, generating a reaction from the communities. New basic sanitation projects and other infrastructure programs may encounter local resistance if they do not include a governance structure that guarantees user participation and alignment with the NBSs' perspective.

We believe that INEMA needs to recognize the role of the EPA Council and abide by its decisions as a perspective for the governance of the Lagoa do Abaeté SNS. Based on this recognition, the council must demand that the management agency recognize the SNS and include religious public use in

both the EEZ and the Management Plan. Protected areas are privileged spaces for mobilizing (blue) technologies that are better suited to nature, where scientific and local knowledge is mobilized to support decision-making. In a broader sense, protected area managers and conservation organizations should recognize the legitimacy of nature's sacred values, improve training on these issues, and work in cooperation with religious groups to ensure that spiritual and cultural values are effectively respected within protected areas.

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