

Environment

The Ideal of Environmental Protection as Protected Areas: a literature review

A Ideia da Proteção Ambiental como Áreas Protegidas: uma revisão de literatura

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ABSTRACT

This article analyzes the evolution process of the Protected Areas and the changes in views regarding environmental protection. It is a literature review. In Brazil and other countries, the Protected Areas were created according to international models with different conceptions, mainly the International Union for Conservation of Nature (IUCN) recommendations. In the IUCN International Protected Areas System, specific categories of strict sense protected areas allow natural resources and human occupation. In others not. The debate on this issue remains controversial worldwide. On the one hand, there are preservationists (strict protection believers) who argue that only sites with the objective of strict preservation should have the status of Protected Areas. Conservationists believe that such sites could maintain this status, even though they are not exclusively focused on strict preservation. The historical trend persists in considering land use and access to natural resources in occupying space, emphasizing issues of their domain and management, causing conflicts of views and interests. As a result, the establishment and maintenance of areas to be protected become more complex, mainly when they are historically occupied and used by man.

Keywords: Protected Areas; Preservation; Conservation; Environmental Management

RESUMO

Este artigo analisa o processo de evolução das Áreas Protegidas, bem como as mudanças de visões relativas à proteção ambiental. Trata-se de uma revisão da literatura. As Áreas Protegidas, tanto no Brasil como em outros países, foram criadas segundo modelos internacionais com diferentes concepções, principalmente as recomendações da International Union for Conservation of Nature (IUCN). No Sistema Internacional de Áreas Protegidas da IUCN, certas categorias de Áreas Protegidas strict sense permitem

o uso de recursos naturais e a ocupação humana, em outras não. Em todo o mundo permanece controverso o debate a esse respeito. De um lado, têm-se os preservacionistas, que defendem que apenas os sítios com o objetivo de preservação estrita devam ter o status de Áreas Protegidas. De outro, os conservacionistas, que consideram que tais sítios poderiam manter este status, mesmo não sendo voltados exclusivamente à preservação estrita. Persiste a tendência histórica em se considerar o uso da terra e o acesso aos recursos naturais no processo de ocupação do espaço com ênfase nas questões de seu domínio e gestão, provocando conflitos de visões e interesses. Com isso, tornam-se mais complexos tanto o estabelecimento como a manutenção de áreas a serem protegidas, sobretudo quando elas são historicamente ocupadas e/ou utilizadas pelo homem.

Palavras-chave: Áreas Protegidas; Preservação Ambiental; Conservação Ambiental; Manejo Ambiental

1 INTRODUCTION

Historically, Protected Areas have been a way of guaranteeing the Protection of the environment (preservation or conservation strategies) as whole or natural resources (International Union for Conservation of Nature [IUCN], 2008). They also provide several social, environmental, and economic benefits, especially to the communities in and around them (IUCN, 2014). Therefore, Protected Areas are considered fundamental for solving the main challenges facing society, such as food and water security, human health and well-being, reducing the potential for environmental risk, alleviating poverty, and climate change (IUCN, 2014; MULONGOY; CHAPE, 2004).

There are more than 200.000 protected sites globally with the primary objective of protecting the environment and belonging to the International System of Protected Areas (ISPA) of the IUCN. Together they cover around 14.6% of the land and 2.8% of the oceans (IUCN, 2014).

According to Sheppard (2008), most countries in the world have national legislation regarding Protected Areas. In many cases, these legislations predate the IUCN-ISPA. In the Brazilian case, the country is a signatory to international agreements relating to Protected Areas and follows the IUCN-ISPA guidelines for this topic.

There is a debate about which sites can be considered protected areas or not, both in Brazil and internationally. Some researchers, organizations, and social

actors believe that only sites with the primary objective of strictly preserving nature or wild biodiversity should be considered Protected Areas (DUDLEY, 2008; PUREZA et al., 2015).

On the other hand, other researchers, organizations, and social actors defend that as long as the main objective of the sites remains as the protection of the environment, the spaces should be considered as Protected Areas, even if the forms of management are not aimed at strict preservation strategies (BENSUSAN, 2006; DUDLEY, 2008; PARRISHET al., 2008; PUREZA et al., 2015).

It was questioned in this paper whether it would be possible to reconcile the human dimension within the Protected Areas established according to the IUCN-ISPAA model.

The Protected Areas category allows the natural resources use and human occupation. However, it has to be controlled and sustainable because it seems to be neglected by restrictive ones, such as Park, due to not protecting the environment. It also does not make any difference to environmental protection. Therefore, they would not be Protected Areas truly.

The hypothesis defended here is that to account for the issues involved, it is necessary to understand its construction dynamics from creating the first instituted protected site to the present day. For this, it becomes necessary to consider Protected Areas as a human construct that influences and participates of various social actors in international, national, regional, and local contexts.

It must consider that the role of groups (individuals or communities) and the state, which own the land (or the sea) and natural resources, manifest their goals and materialize their interests based on their power and authority. Moreover, other actors or even Nation-States can also be mentioned. It may also express their interests in the creation and maintenance of Protected Areas, even if they do not own land and natural resources, such as researchers, environmentalists, and Non-Governmental Organizations (NGO's), among others.

It is argued, in this work, it is possible to reconcile the Protected Areas objectives of environmental protection with the presence of human activities. However, this will only be effective if all State efforts are made in financial and human investments in research development, improving State monitoring and environmental enforcement, and encouraging social participation during the managing process of these areas. Because the implementation of Protected Areas caused, and still does, conflict with the process of their categorization, creation, implantation, and management.

This article aims to analyze historically the evolutionary process of the concepts that involve the creation, implantation, and management of protected sites and the changes in worldviews related to environmental protection to contribute to this debate.

The specific objectives are, (i) to characterize the criteria for differentiating lato sense and strict sense Protected Areas; (ii) Identify the functions and strengths and weaknesses of the IUCN-ISPA; (iii) Historically analyze the evolutionary process in the construction of, a. the ideal of environmental protection; b. the value of a site for it to become protected; c. the land domain and its translation in the form of authority and power before the creation and management of Protected Areas; d. the environmental protection strategies (preservation and conservation) applied in protected sites; e. the dilemma of direct use of natural resources and human occupation in a protected site.

This work is the importance of Protected Areas for the maintenance of biodiversity and local and traditional cultures and other benefits that such protection implies in terms of socio-environmental sustainability. Furthermore, the creation and maintenance of these areas involve controversial issues both of a theoretical/conceptual and methodological and operational nature and, therefore, remain open.

Just as it has based on the statement by Dudley (2008) and Phillips (2008a), the dualist debate about preservation or conservation strategies does not

contribute to the environmental protection of Protected Areas. For these authors, it is essential to understand other issues that influence IUCN-ISPA, such as: (i) what Protected Areas are and how they work; (ii) what are the categories of Protected Areas, their objectives, and, consequently, their management strategies; (iii) how the categories of Protected Areas and their sites complement each other in the form of a System.

2 METHODOLOGY

The methodology of this work involved the hypothetical-deductive method and its unfoldings, exploratory office research, through a literature review.

Literature consultation was conducted on internet pages such as Google Scholar, Scielo portal, journal portal of the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES), in search of articles, books, monographs (undergraduate, postgraduate lato sense studies, Master and Doctor degree thesis), works published in conference proceedings, specialist studies, legal regulations, and official documents.

The consultation procedures took place between March 2015 and April 2019. The choice of consulted literature and official documents were based on search indexers. The text choice composes the research and guides the problem of this review, the hypothesis, and the objectives. Search indexers also served to separate the chosen texts into themes.

3 LITERATURE REVIEW

3.1 The historical process of creating Protected Areas around the world

The term Protected Area (Protected Area), *lato sense*, characterizes areas with different objectives and management forms. One of them is environmental protection. While the Protected Areas, *strict sense*, are defined geographical spaces,

recognized and destined for managing the environment through legal regulations or other instruments of equal effectiveness (IUCN, 2008).

Protected Areas, *strict sense*, explicitly have the main objective of protecting the environment, while the *lato sense* does not have explicit this objective, but contribute significantly to this end. In that case, what must be kept in mind is that the Protected Areas, *lato sense*, comprise the sample group of the *strict sense* ones (MARETTI et al., 2012).

According to EEA (2012), the motivation evolution in Protected Areas creation is two main factors. First is ownership in the form of the domain, which provides the power and authority for space management. The second one is why a Protected Area is considered of value or its protection interest.

As a result, protecting the environment is a direct result of the domain and the protection interest. It is essential to understand these issues to understand how the management of Protected Areas takes its place.

The records of Protected Areas, *lato sense*, have existed universally for thousands of years in the form of spaces and natural resources reserved because they are considered essential for spiritual and religious reasons (European Economic Area [EEA], 2012; PHILLIPS, 2008b). For example, on the Island of Sumatra in 252 BC existed the Hunting Parks for royal recreation (PUREZA et al., 2015). In them, the domain of the land belonged to the ruler, and the objective was recreational hunting. Natural resource protection was achieved secondarily due to the restriction on the use and access of the natural resources necessary to maintain hunting stocks.

The first record of a Protected Area, *strict sense*, dates back to 252 BC. The character of protection was given to forested areas and some terrestrial and aquatic species by Emperor Ashoka in India (EEA, 2012). The domain of the land also belonged to the ruler, but the objective was environmental protection. In this case, in a punctual and isolated way, to some forests and animal species.

In medieval Europe, the Protected Areas, *lato sense*, were still aimed at the isolated protection of some natural resource. The land natural resources domain was ruler, who used these areas for his benefit and that of his peers, that is, Protected Areas created by the elite and only for the elite to enjoy. In general, they were land for entertainment (Hunting Reserves) or a reserve of a strategic natural resource, such as wood for shipbuilding (EEA, 2012; MULONGOY; CHAPE, 2004).

In the 17th and 18th centuries, the idea of a Protected Area, *lato sense*, changed to a space of natural beauty, in the form of landscaped gardens in the homes of the rich and powerful in Great Britain. The gardens mixed elements of wild nature with some human design. The value was that nature, in these gardens, was in its most refined state, an object of contemplation (EEA, 2012). The domain was still of the nobility, and environmental protection still was a secondary objective of protection.

Still, in the 18th century, there is a record in the Law of the first Forest Reserve created specifically for environmental conservation in the Islands of Trinidad and Tobago, Caribbean, 1776. The Tobago Reserve, a Protected Area, *strict sense*, is considered a landmark of environmental conservation because its objective was explicitly to attract rain and contribute to the fertility of the land (PUREZA et al., 2015). Despite this, their domain still was the rulers.

In the 19th century, the modern movement of Protected Areas in the United States of America (US) was consolidated where National Parks emerged to safeguard the wilderness (wild areas or wildlife) (PHILLIPS, 2008b).

The National Parks were large parcels of natural, uninhabited, and wildlands owned by the state, transformed into Protected Areas to preserve pristine areas from exploitation or human habitation (EEA, 2012). No person was allowed to live permanently in the area except for Park employees (BENSUSAN, 2006). Thus, the only human structures allowed were those to support management.

According to Mulongoy and Chape (2004), it chooses the areas to create the first National Parks, and the elite made their acts of creation and for the elite, such as the old hunting or timber reserves of medieval and modern Europe.

Therefore, a problem remains current, the transfer of residents, usually forced from the places where they traditionally lived, creates uninhabited areas to be transformed into National Parks. The problem lies in the fact that "Yellowstone was not an "empty" area either, devoid of human populations; it was home to the Crow, Blackfeet and Shoshone-Bannock Native Americans" (BENSUSAN, 2006, p. 13, our translation).

The pristine model of National Park with no resident population spread slowly across North America and later around the world during the 19th century (MCNEELY; HARRISON; DINGWALL, 1994). During this period, many European countries experienced creating National Parks in their colonies, comparing the context to the US (EEA, 2012).

In the first half of the 19th century, there was another type of Protected Area, the Nature Reserve. They aimed to preserve the environmental quality of flora and fauna. Human occupation and the direct use of natural resources were wholly prohibited. Environmental Protection was more restrictive about National Parks and the state or the nobility (EEA, 2012).

As an example, in 1826, was created in Wakefield (West Yorkshire, England), the Walton Colliery Nature Park, the first Nature Reserve registered. The Reserve, created by Charles Waterton, was known for the specific objective of preserving bird species and their nesting habitat (HOLDGATE, 1999).

Another example is the Naturpark Siebengebirge, created in 1836. That Protected Area is Germany's oldest Nature Reserve in Drachenfels (WINES OF GERMANY, 2019). It should be noted that although these Protected Areas are recognized as Reserves, the term Park is associated with their names.

In the 19th / 20th century, the logic of environmental Protection as Protected Areas changed once again. The intrinsic value of nature started to be emphasized

for aesthetic reasons, and the wild Protected Areas started to be valued for the natural beauty of untamed places. That fact changed the objective of the National Parks. Safeguarding the wilderness gave way to preserving areas with dramatic and sublime beauty for the man's reconnection with the natural world and contemplation tourism (EEA, 2012).

This period also saw an increasing number of Civil Society Organizations (CSO) in Europe whose express purpose was to protect landscapes of outstanding natural beauty. European National Parks were created in the form of small Protected Areas of private property to protect beautiful landscapes. Many of these National Parks took place in a matrix occupied by man; their lands were not uninhabited or pristine environments, and man was not necessarily excluded from the environment (EEA, 2012).

According to the EEA (2012), Europe was already occupied and managed for thousands of years unlike the new world countries. Thus, there were few environments considered natural and uninhabited. Therefore, it was difficult to exclude people from the Protected Area compared to the US, for example, which had vast lands isolated from urban occupation and which were, or were, uninhabited before the creation of National Parks (EEA, 2012).

The growing popularity of National Parks has led to pressure in Germany to create similar Protected Areas. The private initiative led to the foundation, in 1909, of the Nature Park Society (Verein Naturschutzpark). In 1909, the Swiss League for the Protection of Nature was founded to finance land leases to create the Basse-Engadine National Park (EEA, 2012).

It was only at the beginning of the 20th century that the state appeared as a social actor in European Protected Areas, which led to the creation of protected spaces with public resources and citizens' enjoyment. It is noteworthy that private initiatives did not disappear but parallel with public ones (EEA, 2012).

The creation of Protected Areas in State-owned Parks gained emphasis in Europe after the First World War. Several National Parks have been created in

European countries. However, each nation developed its approach without common management standards, categories, or terminology. The only shared idea was that protected sites should be significant scenic, wildlife, or outdoor recreation areas that should be identified and protected for the good of society (PHILLIPS, 2008b).

Most European National Parks created immediately before or after World War I consciously followed the US model. As in it, European National Parks place initially in less populated areas. However, they were typically smaller in area, comparably (EEA, 2012).

In 1933, the first international effort to clarify the Protected Areas categories terminology was during the International Conference for the Protection of the Fauna and Flora in London. The reason was the high number of National Parks and Nature Reserves worldwide and the great confusion between nomenclatures and environmental protection objectives. The conference ratified four categories of Protected Areas, National Park; National Reserve; Natural Monument; Strict Wildlife Reserve. However, it did not determine the objective and specific rules for managing these categories (PHILLIPS, 2008b).

After World War II, the logic of environmental protection changed once again. In this case, the issue of maintaining natural or wild biodiversity began to be observed. With this, the biological uniqueness of a Protected Area began to assume a political meaning that went beyond the simple idea of a place of beauty, or environmental quality, to be preserved (EEA, 2012).

The post-war period also saw a dramatic increase in land allocated as Protected Areas (EEA, 2012) due to the perceived need for a global framework for Protected Areas (PHILLIPS, 2008b).

In 1948, the International Union for the Protection of Nature (IUPN) was founded, currently known as the International Union for the Conservation of Nature (IUCN), to promote the protection of nature worldwide.

In 1959, the 27th session of The Economic and Social Council of the United Organizations, or UN (ECOSOC), recognized National Parks and Reserves as essential factors in the rational use of natural resources. In response, the Protected Areas Commission formed by the IUCN (now know as World Commission on Protected Areas - WCPA) has drawn up the World List of National Parks and Equivalent Reserves (PHILLIPS, 2008b).

The first List of Protected Areas was presented at the First World Conference on National Parks in Seattle (1962), along with the nomenclature of Protected Areas. However, there were no concepts associated with that nomenclatures. The World List of National Parks and Equivalent Reserves was the first version of the current UN List of National Parks and Protected Areas, dating back to 1985. The UN List of Protected Areas documents the international recommendations for Protected Areas for countries (PHILLIPS, 2008b).

While the debate about the need for an international system for Protected Areas grew, new programs and international treaties had an impact on this theme, such as, a. the conference on the Biosphere that generated the Man and the Biosphere Program (MaB) (1971); b. the Convention on Wetlands of International Importance, especially as a Habitat for Waterfowl or the Ramsar Convention (1971); c. the UN Conference on the Human Environment or Stockholm Conference (1972); d. and, in parallel, the Convention for the protection of the World Cultural and Natural Heritage or Paris Recommendation (1972) (PHILLIPS, 2008b).

Until 1975, the IUCN published several editions of the UN List, after 1972 one, and the World Directory of National Parks and Protected Areas with varied trends. A large number of Protected Areas were also established up to that year. However, they were created over an intense confusion of meaning between the nomenclatures National Park and Natural Reserve due to the absence of concepts associated with them (PHILLIPS, 2008b).

During this period, Protected Areas were still seen as independent portions of the landscape or seascape, that is, as isolated jewels of the crown. Social benefits

were considered utterly incompatible with the protected sites' protection objectives (EEA, 2012).

In 1976, the first step in dealing with issues relating to human occupation in Protected Areas was taken. Local communities with specific cultural characteristics that were part of natural ecosystems were considered within the criteria of Environmental Zoning established for the Parks, in the form of Protected Anthropological Zones. However, even with the aggregation of this concept, it was possible to relocate or even expel ethnic groups (VALLEJO, 2017).

In 1978, the IUCN created the first International System of Protected Areas (ISPA). Each Protected Area category of the IUCN-ISPA had a name, environmental protection objective, and an associated number. One of the main reasons for this measure was to reduce the confusion between the nomenclatures of the protected sites and their environmental protection objectives (PHILLIPS, 2008b). Box 1 shows the IUCN-ISPA categories (1978).

Box 1: The Protected Areas Category System was defended by the IUCN in 1978

Group	Definition	Nomenclature
Group A	Categories for which CNPPA will take special responsibility	I - Scientific Reserve
		II - National Park
		III - Natural Monument / National Landmark
		IV - Nature Conservation Reserve
		V - Protected Landscape
Group B	Other categories of importance to IUCN, but not exclusively in the scope of CNPPA	VI - Resource Reserve
		VII - Anthropological Reserve
		VIII - Multiple-Use Management Area
Group C	Categories that are part of international programs	IX - Biosphere Reserve
		X - World Heritage Site (Natural)

Source: Elaborated by the author (2019) from Dudley (2008).

According to Phillips (2008b), the main points about the IUCN-ISPA (1978) are the following, a) it had ten categories of Protected Areas; b) the categories were

separated into groups; c) the categories derive from environmental protection objectives, except for Group C; d) all categories were considered essential, and no category was seen as more valuable than another; e) governments were encouraged to develop National Protected Areas Systems (NPAS's) as per IUCN-ISPAs recommendations; f) it was assumed that land in specific categories was likely to be owned or managed by the government. However, it was recognized that other interest groups should be involved in the management, and; g) IUCN-ISPAs also aimed to influence land use and land cover planning in areas not usually considered to be protected.

However, even after the IUCN-ISPAs (1978) recommendations, the problem between nomenclatures, categories, and objectives persisted. Dudley and Phillips (2008) say that the system still had unresolved structural problems and conceptual confusion.

As a result, national legislation generally continued to use the same nomenclature of Protected Areas between countries, although they translated into very different environmental protection objectives. The name of Park and Reserve were the most used, and, consequently, these terms caused more confusion among managers, internationally and nationally (DUDLEY; PHILLIPS, 2008).

According to Mulongoy and Chape (2004), this confusion refers to the fact that the common names of protected sites do not necessarily help distinguish them. The authors report that more than a thousand terms are used globally to name protected sites and that this variation in nomenclature and management objectives leads to confusion.

Box 2 shows this problem with the National Park nomenclature, translated into several countries with different objectives.

Box 2: Examples of Protected Areas are called National Park in different IUCN categories

Category	Name	Location	Date
I	<i>Dipperu National Park</i>	Austrália	1969
II	<i>Guanecaste National Park</i>	Costa Rica	1991
III	<i>Yozgat Camligi National Park</i>	Turkey	1988
IV	<i>Pallas-Yllästunturi National Park</i>	Finland	1938
V	<i>Snowdonia National Park</i>	Wales, UK	1954
VI	<i>Expedition National Park</i>	Australia	1994

Source: Adapted by the author (2019) from Dudley (2008).

According to Phillips (2008b), other limitations of the IUCN-ISP (1978) soon became apparent, a) it did not contain a definition of a Protected Area; b) the universe covered by the categories was not transparent and, therefore, caused confusion among managers. It is the reason why many terms describe the entire all ten categories, including management categories conservation, conservation areas, and Protected Areas categories:

- c) the inclusion of two international categories (IX and X) that could be classified as another category in the system;
 - d) some of the distinctions between the categories were not clear;
 - e) the system covered only terrestrial areas in its concepts and language.
- That is, it lacked a marine dimension.

Those IUCN-ISP (1978) problems served as the basis for the United Nations Lists of National Parks and Protected Areas from 1980 to 1993. However, these lists now only cover Categories I-V of the IUCN-ISP (1978); that is, they excluded Categories VI-VIII, in addition to IX and X that were international.

Categories V-VIII represented the least restrictive Protected Areas, where the man could directly use natural resources and occupy the land. With the exclusion of categories VI-VIII, restricted categories I-IV remained in the lists, not allowing human occupation. They prevented the direct use of natural resources, and

category V. Thus, the only category of Protected Area with a human dimension was Protected Landscapes or V.

Consequently, the IUCN-ISPA (1994) did not contemplate categories VI-VIII of the IUCN-ISPA (1978). The reason would be an implicit connotation that the more restricted Protected Areas (I-IV) were more critical than before; after all, the IUCN did not recommend the hierarchy of the categories since 1978. However, it existed among the specialists and researchers of the IUCN itself (PHILLIPS, 2008b).

In the 1990s, debates on Protected Areas took hold, mainly on the environmental protection objectives of these sites. In 1992, the IV World Congress of National Parks and Protected Areas (Caracas, Venezuela) was held, where the concept of Protected Areas was defined for the first time as,

An area of land and sea is primarily dedicated to protecting and maintaining biological diversity and natural and associated cultural resources and managed through legal or Other effective means (IUCN, 1994, p.7).

In 1992, during the United Nations Conference on Environment and Development (ECO-92), held in Rio de Janeiro, the Convention on Biological Diversity (CBD) was signed. The Convention was based on three main pillars: environmental protection, sustainable use, and benefits derived from biodiversity. The most consolidated instrument within the CBD is the establishment of Protected Areas (BENSUSAN, 2014). Brazil is one of the signatories of the CBD. Decree N^o. 2519 of 1998 ratified the instrument, fully accepting its text.

The 1993 United Nations List of National Parks and Protected Areas gave rise to the first IUCN manual on Protected Areas management - Guidelines for Protected Area Management Categories - Talking the Same Language and the IUCN-ISPA (1994). The manual served as a milestone in international discussions on Protected Areas. It presented itself as the adequate unified basis for countries to categorize, create and promote the management of sites. It endorsed the exclusion of Categories VI-VIII from the IUCN-ISPA (1978) and created a new

Category (VI - The protected area with sustainable use of natural resources) (IUCN, 1994).

Category VI was incorporated some ideas from the former IUCN-ISPA (1978) Categories VI, VII, and VIII. It was conceived during the debates at the 1992 Caracas Congress. There were also conceptual and objective changes between the remaining five categories and their goals (Phillips, 2008b).

Claudio Maretti highlights the Brazilian influence on the consolidation of the sixth category of the IUCN-ISPA, where "the history of Extractive Reserves was decisive in creating Category VI" (PUREZA et al., 2015, p. 32, our translation).

Box 3 shows the IUCN-ISPA of 1978 and 1994, its categories, and objectives.

Box 3: Environmental protection categories and their objectives -comparisons between IUCN-ISPA 1978 and 1994

Category (1978)	Objective (1978)	Category (1994)	Description/Objective (1994)
la - Scientific Reserve / lb - Strict Nature Reserve	To protect nature and maintain natural processes in an undisturbed state, ecologically representative examples of the natural environment are available for scientific study, environmental monitoring, education, and the maintenance of genetic resources in a dynamic and evolutionary state.	la - Strict Nature Reserve and lb – Wilderness Area	Areas of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features and species, available primarily for scientific research and environmental monitoring; or large areas of unmodified or slightly modified land, and sea, retaining their natural character and influence, without permanent or significant habitation, which are protected and managed to preserve their natural condition.

Continued...

Box 3: Continuation

Category (1978)	Objective (1978)	Category (1994)	Description/Objective (1994)
II. National park	To protect natural and scenic areas of national or international significance for scientific, educational, and recreational use.	II. National park	Protected Areas Managed Mainly for Ecosystem Conservation and Recreation. Natural areas of land and sea, designated to (a) protect the ecological integrity of one or more ecosystems for this and future generations, (b) exclude exploitation or occupation inimical to the purposes of designation of the area, and (c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.
III. Natural Monument / Natural Landmark	To protect and preserve nationally significant natural features because of their particular interest or unique characteristics.	III. Natural Monument	Protected Areas Managed Mainly for Conservation of Specific Features. Areas contain one or more, specific natural or natural/cultural feature that is of outstanding or unique value because of its inherent rarity, representative or aesthetic qualities or cultural significance.
IV. Managed Nature Reserve / Wildlife Sanctuary	To assure the natural conditions necessary to protect nationally significant species, groups of species, biotic communities, or physical features of the environment require specific human manipulation for their perpetration.	IV. Habitat/Species Management Area	Protected Areas Managed Mainly for Conservation Through Management Intervention. Areas of land and sea are subject to active intervention for management purposes to ensure the maintenance of habitats and meet specific species' requirements.

Continued...

Box 3: Continuation

Category (1978)	Objective (1978)	Category (1994)	Description/Objective (1994)
V. Protected Landscapes	To maintain nationally significant natural landscapes characteristic of the harmonious interaction of man and land while providing opportunities for public enjoyment through recreation and tourism within the everyday lifestyle and economic activity of these areas.	V. Protected Landscape/Seascape	Protected Areas Managed Mainly for Landscape/Seascape Conservation and Recreation. Areas of land, with coast and sea as appropriate, where people and nature interact over time have produced distinct character with significant aesthetic, cultural, and ecological value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance, and evolution of such an area.
VI. Resource Area	To protect the natural resources of the areas for future use and prevent or contain development activities that could affect the resource pending the establishment of objectives based upon appropriate knowledge and planning.	VI. Managed Resource Protected Area	Protected Areas Managed Mainly for the Sustainable Use of Natural Ecosystems. Areas containing predominantly unmodified natural systems managed to ensure long-term protection and maintenance of biological diversity while providing at the same time a sustainable flow of natural products and services to meet community needs.
VII. Natural Biotic Ark / Anthropological Reserve	To allow the way of life of societies living in harmony with the environment to continue undisturbed by modern technology.		

Continued...

Box 3: Conclusion

Category (1978)	Objective (1978)	Category (1994)	Description/Objective (1994)
VIII. Multiple- Use Management Area/Managed Resource Area	To provide for the sustained production of water, timber, wildlife, pasture, and outdoor recreation, with the conservation of nature primarily orientated to the support of the economic activities (although specific zones may also be designated within these areas to achieve specific conservation objectives).	VI. Managed Resource Protected Area	Protected Areas Managed Mainly for the Sustainable Use of Natural Ecosystems. Areas containing predominantly unmodified natural systems managed to ensure long-term protection and maintenance of biological diversity while providing at the same time a sustainable flow of natural products and services to meet community needs.

Source: Elaborated by the author (2019) from Mcneely, Harrison, and Dingwall (1994, p.09-10).

According to Phillips (2008b), the IUCN-ISPAA (1994) did not initially intend to establish or raise the levels of management standards, nor to propose a model for use at the national level. The idea was for Protected Areas to be established to meet national or local needs. Only after the creation of a site would it receive a category according to its management objectives.

In 2002, the levels of implementation of Protected Areas around the world were still low. Therefore, the CBD approved a strategic plan to be developed by 2010 to help solve that problem (BENSUSAN; PRATES, 2014).

In 2003, the World Park Congress – Protected Areas: Benefits Beyond Boundaries was held, in conjunction with the World Heritage Convention. The event was considered the most diverse and had various social actors and local and indigenous communities. It established Protected Area's new agreement with local communities and indigenous peoples to promote cultural and hereditary rights

maintenance and enhance traditional knowledge in managing landscapes and natural and modified resources, agro-diversity, species with co-evolution, sacred areas, and cemeteries. At the event, there was a broad discussion on the need for a human dimension in the management of Protected Areas and Governance in protected areas (IUCN, 2005).

In 2004, the *Speaking a Common Language* report (IUCN, 2008) sought to plan the concepts of the categories of the IUCN-ISPA. With this, the report validated the system's structure and its categories, which, in 1994, still had some conceptual confusion (BOITANI; RONDININI, 2008).

According to Boitani and Rondinini (2008), the report also highlighted several problems in the implementation and use of the IUCN-ISPA (1994), especially: 1) the rules for creating Protected Areas and designating the categories should be more apparent; 2) the application of the system is incipient in specific biomes, mainly forests and marine areas; 3) understanding is complex and using the IUCN-ISPA and its categories as a basis for the NPAS's; 4) there is confusion between a categorization system based on environmental protection objectives and the reality on the ground; 5) the IUCN-ISPA still favors an outdated view of Protected Areas as independent and isolated islands.

In 2008, the *Defining Protected Areas* report reviewed the Protected Areas categorization process and consolidated the IUCN Protected Areas concept used by the body until 2021, as,

A geographical space, recognized, dedicated, and managed through legal or other effective means, achieves long-term conservation of nature with associated ecosystem services and cultural values (DUDLEY, 2008, p.08).

Box 4 shows how the IUCN started to group Protected Areas in 2008 until 2021 (IUCN, s.d., Protected Areas). It also highlights a description of each category and its primary environmental protection objective. In this case, the IUCN-ISPA Protected Areas are categorized according to their primary environmental protection objectives; they are of the specific objective type. Each category has a

unique and specific objective of environmental Protection (DUDLEY; STILTON, 2008).

Box 4: IUCN-ISPA categories (2021)

Category	Description	Primary objective
(Ia) Strict Nature Reserve	Protected areas are strictly set aside to protect biodiversity and possibly geological/geomorphological features, where human visitation, use, and impacts are strictly controlled and limited to protect the conservation values. Such protected areas can serve as crucial reference areas for scientific research and monitoring.	To conserve regionally, nationally, or globally unique ecosystems, species (occurrences or aggregations), and geodiversity features: these attributes will have been formed chiefly or entirely by non-human forces. They will be degraded or destroyed when subjected to all but very light human impact.
(Ib) Wilderness Area	Protected areas are usually large unmodified, or slightly modified, retaining their natural character and influence without permanent or significant human habitation are protected and managed to preserve their natural condition.	To protect the long-term ecological integrity of natural areas that are undisturbed by significant human activity, free of modern infrastructure, and where natural forces and processes predominate so that current and future generations have the opportunity to experience such areas.
(II) National Park	It sets large natural or near natural areas aside to protect large-scale ecological processes and complement the species and ecosystems characteristic of the area, providing a foundation for environmentally and culturally compatible spiritual, scientific, educational, recreational, and visitor opportunities.	Protect natural biodiversity and its underlying ecological structure, support environmental processes, and promote education and recreation.
(III) Natural Monument or Feature	Protected areas are set aside to protect a specific natural monument, such as a landform, sea mount, submarine cavern, geological features such as a cave, or even a living feature such as an ancient grove. They are generally relatively small protected areas and often have high visitor value.	To protect specific outstanding natural features and their associated biodiversity and habitats.

Continued...

Box 4: Conclusion

Category	Description	Primary objective
(IV) Habitat/Species Management Area	Protected areas aiming to protect particular species or habitats and management reflects this priority. Many category IV protected areas will need regular, active interventions to address particular species' requirements or maintain habitats, but this is not a requirement of the category.	To maintain, conserve and restore species and habitats.
(V) Protected Landscape / Seascape	A protected area where the people and nature interaction produced an area of distinct character with significant ecological, biological, cultural, and scenic value: safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation other values.	To protect and sustain essential landscapes/seascapes and the associated nature conservation and other values created by human interactions through traditional management practices.
(VI) Protected área with sustainable use of natural resources	Protected areas conserve ecosystems and habitats, together with associated cultural values and traditional natural resource management systems. They are generally large, with most of the area in a natural condition, where a proportion is under sustainable natural resource management and where low-level non-industrial use of natural resources compatible with nature conservation is seen as one of the main aims of the area.	Protecting natural ecosystems and using natural resources sustainably can be mutually beneficial when conservation and sustainable use.

Source: Elaborated by the author (2019) from IUCN (s.d., Protected Areas).

Box 4 shows that the stricter categories aim to preserve species and habitat (Ia, II, III, and IV) or preserve wildlife (Ib). While Categories V and VI provide for the use and access to natural resources and the human occupation of their lands with the protection of specific natural and cultural characteristics or the sustainable use of resources arising from natural ecosystems, respectively.

Category VI is a bit different from the standard of a category that foresees the human dimension of the environment. In addition to aiming at the sustainable use of natural ecosystems, it aims primarily to preserve species and habitat.

Thus, Category VI sites usually have large portions of natural ecosystems to be preserved and some anthropized areas to be used sustainably or recovered. It could be said that their sites are more restrictive than those in Category V, but they also consider men to be part of the environment.

In this context, Dudley and Stolton (2008) show that the Protected Areas categories are specific objectives, creates an indirect correlation between the categories and the degree of human intervention within their sites.

According to the authors, Category Ia, Ib, II, and III sites have fewer adverse environmental impacts and require little human intervention. Such interventions aim to carry out projects for the Recovery of Degraded Areas (RAD) and management actions to maintain the ecological balance of their ecosystems, habitat, and species; they are protected areas from being preserved. Meanwhile, Category V sites are on the threshold between natural and artificial, which requires RAD strategies and occasional or constant management actions.

Category VI sites are closer to Category I-III than Category V sites, as they aim to protect (preserve and conserve) large areas that are not negatively impacted. On the other hand, Category IV sites are closer to Category V. In addition to preserving species and habitat, they aim to restore degraded environments.

For Dudley and Stolton (2008), the IUCN-ISPAs serve several valuable purposes, including, 1) emphasizing the importance of Protected Areas; 2) demonstrate the variety of purposes that Protected Areas serve; 3) promote the idea of Protected Areas as a System, instead of isolated sites; 4) reduce terminology confusion (nomenclature); 5) improve communication and understanding of a System; 6) facilitate assessments of the efficiency of the management of a site or a System; 7) provide the analysis (comparison) between sites of the same category.

IUCN-ISPAs further provides an agreed set of international guidelines for NPAs. However, it was not created to be used in its fullness in an NPA but to guide their elaboration according to the specificities of each country.

It was seen that the IUCN-ISPA has a standard structure consolidated after decades of debates, which aims to help with some obstacles to the functioning of the NPAS's and provide their fullness. It is not and does not intend to be infallible, and it is not unanimous yet, as it is under constant discussion in international debates.

As IUCN-ISPA recommendations for NPAS's, the following stand out,

(i) The creation, implementation, and management of a protected site must be based on the principles of good Governance - 1) Legitimacy and voice; 2) Direction; 3) Performance; 4) Accountability; 5) Fairness and rights (GRAHAM; AMOS; PLUMPTRE, 2003; WORBOYS et al., 2015);

(ii) The Governance types (Government management or Governance by the government; Multistakeholder management or Shared governance/Co-governance; Private management or Private Governance; Traditional community management or Governance by indigenous peoples and local communities) must be neutral between the IUCN-ISPA categories. There cannot be predetermination of a type of Governance for a category of the protected area. Thus, in the IUCN-ISPA, there are categories of protected areas that fulfill every possible combination of governance types (GRAHAM; AMOS; PLUMPTRE, 2003; WORBOYS et al., 2015);

(iii) All categories of protected areas can be from any domain of land and natural resources, regardless of the level of restriction of environmental protection – p., e.g., a National Park can be owned (domain) by government agencies, NGO's, communities, indigenous peoples, companies and private owners, alone or in combination (BORRINI-FEYERABEND et al., 2008);

(iv) The categorization of a protected site should not be based on its specific characteristics, but on the primary objective of the Protected Area category it belongs to (WORBOYS et al., 2015);

Falzon (2008) reports that even with the IUCN-ISPA, it is still difficult for managers to categorize large sites, especially those containing a wide variety of environments with different degrees of human intervention. The reason, for the

author, is that for each portion of the site, there may be different environmental protection objectives, which leads to confusion in the determination of categories. To remedy this problem, the author recommends establishing the appropriate category for a site when at least three-quarters of it, or more, are managed for the primary purpose of the respective chosen category. The management of the remaining area must not conflict with this primary objective.

(v) Direct use, access to natural resources, and human occupation should not be wholly impeded in any site independently of its category (Worboys et al., 2015).

Harmon (2008) warns that only under these conditions an NSAP can be fully functional or complete. According to Mulongoy and Chape (2004), NPAS's that do not act entirely end up based on management models that exclude local and traditional communities because they realize their existence, views of the world, ways of life, and activities are incompatible with the environmental protection. According to the authors, this could happen even in sites designed to include human populations in their interior.

Dudley et al. (2008) also propose the Accountability Democracy, Disputation Data Management Verification principles, which, according to them, are fundamental to the categorization procedure. While Phillips (2008a) also includes Participation, Accountability, Equity, Transparency, and Leadership, they are part of a continuum of responses and have a rights-based approach.

Even after these discussions, in 2010, it was found that the levels of implementation of protected sites were still low. Therefore, the CBD prepared a new strategic plan (2010-2020) that determined the so-called Aichi Targets to contain global biodiversity loss. The eleventh goal deals specifically with Protected Areas, and it guides the NPAS's (BENSUSAN, 2014).

In 2014, the IUCN Congress, Parks, people, planet: inspiring solutions (The Promise of Sydney) was held in Sydney, Australia. It had as its primary objective to assist national governments in creating new Protected Areas and directing more

resources towards biodiversity protection. The event addressed the means to (i) achieve protection goals; (ii) respond to climate change; (iii) improve health and well-being; (iv) support human life; (v) reconcile different development challenges; (vi) improve the diversity and quality of Governance; (vii) respect the culture of indigenous and traditional knowledge; and, (viii) inspire a new generation to prioritize environmental Protection (CULLEN, 2015).

Finally, in 2015, it was noted that the new strategic plan of the CBD 2010-2020 would not be fulfilled, which led the United Nations to propose a global pact with a new agenda for 2030, including for Protected Areas. This pact outlines the Sustainable Development Goals (SDGs) that the signatory countries must meet by 2030, including protected coverage targets (PACTOGLOBAL, s.d., ODS).

3.2 Environmental Protection and Human Populations: Should there be a human dimension on Protected Areas?

The Sydney Promise again brought to light a debate that began in 1972 (Stockholm Conference), had its apex at the Durban Congress in 2003 and continues until 2021 with open questions, such as, Protected Areas can have a human dimension? Consequently, should Protected Areas protect and promote social and cultural factors? Should Protected Areas with direct use of natural resources be considered Protected Areas? According to Dudley (2008), this debate permeates the core of the concept of Protected Areas and is installed in the environmental protection objectives of the categories.

Dudley (2008) reports two globally accepted definitions of Protected Areas, the CBD and the IUCN. The CBD defines a Protected Area as "a geographically defined area which is designated or regulated and managed to achieve specific conservation objectives" (UNITED NATIONS, 1992, p. 04). The IUCN defines it as "A clearly defined geographical space, recognized, dedicated and managed, through

legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values" (DUDLEY, 2008, p. 08).

According to Dudley (2008), the CBD recognizes the IUCN categories. However, for him, the definition of the IUCN goes beyond the CBD, as it encapsulates a philosophy about the role and purpose of Protected Areas in its concept and having a clear focus on maintaining biodiversity. Still, the concept of the CBD does not encompass the cultural aspects of the Protected Areas, while that of the IUCN encompasses them (MULONGOY; CHAPE, 2004). The authors say that the IUCN Protected Area concept is more accepted than that of the CBD. However, the IUCN concept itself is not unanimously accepted among its peers.

Dudley (2008) says that since the 2000s, there has been a more excellent defense of equity between biological and cultural values within Protected Areas, which has made the difference and clash between the two main lines of thought on the subject of Areas clearer. Protected, the preservationist and the conservationist.

The preservationist current defends the maintenance of biological diversity as the primary objective of a Protected Area and that the human dimension is secondary to this objective. Therefore, it must be disregarded in the context of the management of Protected Areas. The conservationist currently believes that the maintenance of biodiversity is secondary to the "conservation of nature with associated ecosystem services and cultural values" (DUDLEY, 2008, p. 08).

According to Dudley (2008), the preservationist current defends the exclusion of categories of Protected Areas where man resides or directly uses the environment. Only those categories aimed at the restricted preservation of nature, natural or wild biodiversity should be considered protected areas for preservationism.

The reason for excluding the categories of Protected Areas with a human dimension lies in the idea that man degrades the environment by using natural resources and occupying space. Even if it makes a traditional and sustainable use,

the relationships established between human populations and the environment will change over time, putting the Protected Area, nature, and its natural or wild biodiversity at risk.

On the other hand, conservationists argue that the Protected Areas where man is inserted have additional proven benefits for the environment. These areas protect as much as the strictest ones (DUDLEY, 2008). Parish et al. (2008) state that Category V and VI sites usually offer a better conflict management option than more restricted ones, especially where men dominate the matrix.

This author arises whether an area can be considered a Protected Area, if the environmental managing body does not prioritize the maintenance of biodiversity or, more precisely, if it places it as secondary to other objectives such as maintenance of cultural or landscape values. Many assume that protecting biodiversity (or a rough equivalent, such as preserving wildlife or nature) is always a primary objective of Protected Areas. The human dimension should be eliminated from the management of Protected Areas or placed as secondary.

Dudley (2008) warns that if the human dimension is removed from the environmental protection objectives of Protected Areas, primarily or secondarily, several protected sites will be excluded today under the character of Protected Areas by the United Nations list. Among them, Category V and VI sites would be disregarded as Protected Areas. Another point defended is that it would be better to have a Protected Area with a less restricted level of protection, but effective and permanent, than a strictly ineffective Protected Area - paper Protected Area syndrome (PARRISH et al., 2008).

In categories V and VI defense, Maretti et al. (2012) say that according to the IUCN the environmental protection must always be its primary objective. In other words, biological diversity maintenance should not be the primary objective of all Protected Areas, such as preaches the preservationist current.

Furthermore, an area with the primary objective of managing natural resources, although sustainable, is not a strict sense Protected Area. However, this

is not the case for Categories V and VI, as, on sites in these categories, sustainable use is a means by which environmental protection is achieved. Thus, both Category V and VI meet the prerequisite to be considered Protected Areas strict sense. Therefore, they are not sustainable management of natural resources, or just lato sense Protected Areas (MARETTI et al., 2012).

For Dudley (2008), the preservation and conservation of the environment work together. He says that its dualist debate does not contribute to environmental protection because of implementing promoting sites management Protected Areas. It is more important to take other facts, for example:

- a) Establishing restrictive Protected Area, such as social costs and economic aspects;
- b) Most of the benefits related to tourism revenue in restricted reserves rarely fall on the local communities affected by implementing a Protected Area.

According to Phillips (2008a), perhaps this debate between exclusion and maintenance of Categories V and VI will be resolved if it is realized that all categories of Protected Areas are complementary at a System level. In other words, each of them has a specific function (primary management objective) that guarantees a range of its protection results, which are complementary and necessary to the complexity of the environment. Because of this, it is wrong to compare the effectiveness of environmental protection between different categories of Protected Areas (HOCKINGS; DUDLEY, 2008).

4 FINAL CONSIDERATIONS

From this Literature Review, it was lato sense that Protected Areas have existed for thousands of years. Historically, they varied in values to become protected spaces, translating into diverse management and objectives forms.

It was the lato sense that Protected Areas secondarily have the objective of environmental protection. However, the Protected Areas strict sense are delimited geographical spaces, recognized and intended primarily for environmental protection, through legal regulations or other instruments of equal effectiveness.

The historical evolution of the creation and management of Protected Areas resulted from ownership of land and natural resources. Their interest in protecting them results in its protection value domain on something varied time.

The domain of land and natural resources initially in history was that of a ruler who managed space and natural resources for himself and his peers according to their particular interests, which resulted in the Protection of specific, punctual, isolated, and strategic resources. In the 17th and 18th centuries, protected areas owned by the nobility emerged that functioned similarly to the previous model

In the 19th century, the state emerged as the creator and manager of protected areas in the USA. The creation and management were established according to the state's interest in reserving areas to preserve wild nature, for their intrinsic value, or serving elite contemplation tourism.

During the 19th and 20th centuries, the domains of the state and private property consolidated. In parallel, the interest in the usufruct of the community and the vision of preserving wild biodiversity emerged. It was only in the 1980s and 1990s that other types of Governance were consolidated, such as that shared by communities. Consequently, the concept of environmental conservation in Protected Areas was adopted. The environmental protection idea was realized as the primary protected area aim during this period and protected areas and environmental management networks and systems strategies among preservationists and conservationists.

After 2000, Protected Areas were valued for various reasons, such as aesthetic artifacts, biodiversity repositories, and potential economic wealth

sources, through sustainable use. It gave rise to a constellation of worldviews about the purpose of Protected Areas and the correct way to manage them.

Protected Areas managers began to recognize the importance of local communities and types of Governance and the State's National Parks. They also began to address the need for Protected Areas networks more systematically and comprehensively, incorporating new ideas in environmental planning and developing rapidly.

Protected Areas began to be seen more as social enterprises to be managed according to the needs of local communities, often through partnerships between researchers, local communities, and other stakeholders. At the same time, the management of Protected Areas began to be open to new partners, including NGOs. It led to the creation of new categories of Protected Areas.

Changes have continued to shape Protected Areas policy in many countries, including Brazil. In the emerging perception, they are seen as a critical component of a life support system. In this new conception, Protected Areas must do more than simply protect biodiversity or provide habitat and refuges for species. They came to be seen as nodes of environmental resilience; they adapt to adverse environmental impacts. Protected Areas also provide ecosystem services, seen as the benefits and functions (provision, regulation, and cultural) that an ecosystem provides, such example, clean water, temperature regulation, food provision, among others.

From an international perspective, Protected Areas are expected to provide a range of social benefits, sustaining local communities within and around their borders and contributing significantly to the United Nations Millennium Development Goals (MDGs).

It expects to generate revenue to support its operation and strengthen local and national economies through tourism and natural resources. However, it should be noted that, although these economic and social arguments have gained weight

in recent years, the intrinsic value of Protected Areas remains the fundamental reason for their continued protection and management.

Changing Protected Area's perception contrasts in almost every aspect with what has prevailed in the last 30 or 40 years. The promoters behind the contemporary Protected Areas model include a) increasing sophistication and scientific understanding; b) greater awareness of human rights and traditional populations; c) the protection of world, cultural and natural heritage sites and other agreements signed in international conventions; and d) the notion that Protected Areas may disproportionately offer burdens and bonuses among people.

In this literature review, it was evident that at each time the power and authority exercised in the management of space and natural resources, the value and objectives of environmental protection, and the concepts of Protected Areas were imperative, or even definitive, for the creation and management of protected sites. Issues changed throughout history in a process in which the worldwide network of Protected Areas has been re-signified and reworked.

However, there is still a dispute between managers, researchers, organizations, and social actors on the direct permission in natural resources usage and human occupation in protected sites. Consequently, whether Categories V and VI should be considered Protected Areas strict sense, which from this Literature Review shows up as a historical holdover from the preservationist vision that comes from Yellowstone and the founding of the IUCN.

It is recommended to resolve this conflict in-depth research to assess the efficiency of managing protected sites with human presence and direct natural resources. Especially those of Category V and VI, as well as unveiling these two categories, effectively protect the environment or not. In this context, it must be questioned whether the exclusion of the two categories from the IUCN-ISPA is pertinent or not.

As for the change in the perception of power and authority structures exercised in managing space and natural resources, we must pay attention to the authoritarian escalation in some nation-states.

Brazil has been experiencing conflicts and uncertainties regarding environmental public policies, especially concerning Protected Areas, due to the advance of specific private interests on the community and the environmental goods in the last five years. It has put historical environmental achievements in check from the country.

With the new federal government cycle, which began in 2019, a series of actions or interests were intensified to make it more flexible, fragile, freeze and even dismantle the performance of the environmental portfolio in the country. It can be mentioned,

(i) Breaking or threatening to dissolve national and international agreements, which was Brazil is a signatory;

(ii) Flex, threaten, or revoke the environmental legislation, mainly decrees, ordinances, resolutions, and normative instructions;

(iii) Attempt to extinguish the Environment Ministry (MMA), or demote it to a Secretariat subordinate to the Agriculture Ministry, contrary to the Stockholm Conference resolutions;

(iv) Trying to merge IBAMA (Environmental Executive Agency of the government) and ICMBio (Protected Areas Management Agency of the government) and transform them into just a regulatory agency, with the primary intention of weakening the licensing and environmental enforcement and Protected Areas management process that would decentralize the municipalities;

(v) Extinguish the Specialized Environment Group of the Public Ministry (Public Prosecutor's Office);

(vi) Cut or freeze fixed or linked budgets, scrap the infrastructures and work equipment, promote insufficiency, disassemble and harass human resources. Exonerate specialist employees with the key or managerial positions and replace

professionals with no subject or military personnel experience. Authoritatively transfer public servants to distant locations and positions with different characteristics of their academic background;

(vii) Promote dismantling, removing autonomy, freezing enforcement actions, and the administrative, procedural sequence of environmental fines. Exonerate public servants from environmental supervisory positions due to the application of fines, embargoes, seizures, and mischaracterization of assets used in environmental crimes;

(viii) Extinguish, dismantle or weaken environmental public councils, including to the exclusion of entities or representatives of organized civil society, with replacement by military and government representatives, which goes against the parity established by legislation;

(ix) Promote lobbying, in-licensing, and environmental enforcement, mainly federal. Promote official and unofficial speeches and discourses, with fake news that: (a) encourage the biomes environmental degradation, especially Amazonia and Pantanal, and ecosystems for the illegal advancement of the agricultural frontiers, mineral extraction, and industry activities with potential for polluting or negative environmental impacts; (b) promote an anti-environmental movement, which pits a portion of the population against environmental agencies of the government, environmental institutions and environmental protection itself; ix) approve a law project in the Chamber of Deputies (lower house of the National Congress) that distorts, dismantles, or weakens licensing and enforcement environmental, with: (I) dispensing with environmental licensing from diverse activities and undertakings; (II) creates self-declared environmental licensing with automatic issuance of licenses without prior analysis or enforcement for activities and undertakings with a low negative environmental impact; (III) ends with preliminary licensing; (IV) centralizes decision-making power in the environmental agencies, contrary to the principles of Governance and social participation established by law and in the federal constitution; (V) excludes protected areas of

indigenous and Quilombola lands from the analysis of adverse environmental impacts.

All this, to favor the agrarian elite and a new progressive project, employed the economic growth in the country, to the detriment of the cost of environmental quality, genetic heritage, biodiversity, climate, agro diversity, traditional communities, small farmers, extractive and indigenous peoples. Concerning Protected Areas, the discourse is to disaffect sites that contradict these interests and weaken the legislation and the environmental enforcement of these protected sites by encouraging the use and coverage of land in a predatory way.

In this context, Brazil's structures of power and authority had a setback regarding the perception of the environmental issue, which currently falls short of a conservative model, perhaps, of contemporary adaptive management. Such a posture negatively impacts, directly and indirectly, the value and objectives of environmental protection, which undermines the creation, implantation of management of Protected Sites in the country.

In the current social-political economic scenario in which Brazil finds itself, it is not advisable to check existing public policies, including the National System of Protected Areas, at this moment, given the attempt by government agents with interests to make them more flexible or dismantled. Thus, a more appropriate strategy for the current moment is signing official and unofficial agreements, with the Public Ministry aware, with the social actors, mainly the local and traditional communities that live in or around Protected Areas. In addition to local, regional, national, and international environmental activism for the defense and promotion of public environmental policies.

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