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Rights of Nature in Brazil: limits and possible interpretations of the 1988 Constitution

ABSTRACT - The recognition of Nature as a subject of legal rights became an important point of inflection for environmental constitutionalism in the beginning of the New Millennium, notably introduced by Ecuador and Bolivia Constitutions. This context gave rise to a new Latin American Constitutionalism biocentric trend. By examining the rights of nature in a constitutional comparative law perspective, this article aims to analyze the normative limits and the interpretative possibilities of applying the rights of nature acquisitive evolution to the Brazilian constitutional system. The hypotheses to be examined are that: a) nature cannot be comprehended as a subject of legal rights in Brazil, because the Constitution adopts an anthropocentric perspective; or b) despite not expressly recognizing the rights of nature, Brazilian Constitution includes both anthropocentric and biocentric perspectives, which would allow the recognition of the rights of nature, as occurs in other Latin American countries. New municipal legislation recognizing the rights of nature in Brazil seems to reinforce the biocentric interpretative potential of the 1988 Constitution and provide a greater incentive to recognize this interpretation in both the legislative and judicial realms.

KEYWORDS - Latin American Environmental Constitutionalism, rights of nature, Brazil.

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of the 1988 Constitution*****

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1. Introduction

Given the dramatic increase of environmental degradation in recent decades, which diminishes quality of life on the planet and compromises the future of the next generations, protecting environmental resources becomes increasingly important. At the same time, the adoption of environmental legislation at both international and national levels also increased, as did discourse about sustainable development.

The start of a new millennium brought with it the advent of new constitutional movements that recognized nature as a subject of legal rights, notably in Ecuador and Bolivia. This context gave rise to a new Latin American Environmental Constitutionalism biocentric trend.

By examining the rights of nature in a comparative law perspective, recognized most notably by the Ecuadorian Constitution, this article aims to answer the following question: What are the normative limits and interpretative possibilities of applying the rights of nature acquisitive evolutions to the Brazilian constitutional system?

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To do this, we must discover how the rights of nature have previously appeared in the Brazilian legal framework. We'll present the findings of bibliographical research and a normative study using a comparative method within the scope of constitutional theory.

The hypotheses to be examined are that: a) nature cannot be comprehended as a subject of legal rights in Brazil, because the Constitution adopts an anthropocentric perspective; or b) despite not expressly recognizing the rights of nature, Brazilian Constitution includes both anthropocentric and biocentric perspectives, which would allow the recognition of the rights of nature, as occurs in other Latin American countries.

This article is divided into three parts. First, the main elements of the rights of nature are analyzed, focusing on the innovations of new Latin American constitutionalism, most notably in the constitutions of Ecuador in 2008 and Bolivia in 2009. Then, the Brazilian legal system and its peculiarities are discussed in terms of environmental constitutionalism, including a debate between anthropocentrism and biocentrism in Brazil's 1988 Constitution.

Finally, it analyzes a lawsuit brought before the Brazilian judiciary in 2017 that sought to apply to the national legal framework the understanding of nature as a subject of legal rights, as well as municipal legislation that also seeks to implement this type of understanding.

2. Rights of Nature and new Latin American constitutionalism

In the first decade of the 21st century, constitutionalism in Latin America received new contributions from the revised constitutions of Ecuador (2008) and Bolivia (2009), which created a movement referred to by some authors as "new Latin American constitutionalism" or "Andean constitutionalism."

Departing from classic European constitutionalism, and with a commitment to the decolonization process, these new constitutions reframed the notion of the state and popular sovereignty by assigning value to cultural and multiethnic pluralism, social inclusion and political participation, socio-environmental sustainability and protection, historical and cultural diversity, and sustainable development. They also sought balance in the use of economic and environmental resources, within a socioeconomic model aimed at providing a better quality of life. This is

defined as *buen vivir* or *sumak kawsay* in the Ecuadorian Constitution and *vivir bien* or *suma qamaña* in the Bolivian Constitution¹.

These constitutions are part of an unprecedented phenomenon in the environmental constitutionalism. According to Domenico Amirante, they are paradigmatic documents, since the environmental aspects are now considered basic in the legal system and respect for nature has become a precondition for the exercise of constitutional rights and guarantees².

For caution, can be useful remember that this new trend of Latin American constitutionalism of the early 21st century cannot be confused with “neoconstitutionalism”³. However, the neoconstitutionalism theoretical characteristics can certainly be found in the new Latin American constitutions, both concepts do not coincide. Behind these constitutional texts there are cultural and philosophical concepts far apart from those that inspire neoconstitutionalism (and constitutionalism in general)⁴.

The reflections of Latin American doctrine in recent years highlight the specificities of the phenomenon in South America that, according to Silvia Bagni, can be identified “*nella partecipazione popolare all’esercizio del potere, in primis nello stesso processo costituente, nell’interculturalità e in una nuova visione dei rapporti fra l’uomo e la natura, che sta a fondamento, in alcuni casi ma non in tutti, del (tentativo di) adesione a nuovi modelli economici*”⁵.

Among the criticisms of the new constitutionalism, R. Gargarella's observes that Latin American constitutions overlap often opposing models of democracy, which correlate economic aspirations, political ideals, legal commitments, and constitutional models in tension with each other. In this sense:

¹ M. PETERS MELO, *O patrimônio comum do constitucionalismo contemporâneo e a virada biocêntrica do ‘novo’ constitucionalismo latinoamericano*, in *Revista Novos Estudos Jurídicos*, 18, n. 1/2013, 74-84.

² D. AMIRANTE. *Environmental Constitutionalism Through the Lens of Comparative Law. New Perspectives for the Anthropocene*, in D. AMIRANTE, S. BAGNI (a cura di), *Environmental Constitutionalism in the Anthropocene. Values, Principles and Actions*, Routledge, London, 2022.

³ In this sense, M. PETERS MELO, *Neocostituzionalismo e “nuevo constitucionalismo” in America Latina*, in *Diritto Pubblico Comparato ed Europeo*, 2/2012, 342-354; ID, *As recentes evoluções do constitucionalismo na América Latina: neoconstitucionalismo?*, in A. WOLKMER; M. PETERS MELO (a cura di), *Constitucionalismo latino-americano: tendências contemporâneas*, Juruá, Curitiba, 2013.

⁴ L. PEGORARO, *Diritto, diritto comparato, altre scienze nello studio del nuevo constitucionalismo e del buen vivir andino*, in S. BALDIN, M. ZAGO (a cura di), *Le sfide della sostenibilità. Il buen vivir andino dalla prospettiva europea*, Filodiritto, Bologna, 2014, 391.

⁵ S. BAGNI apud L. PEGORARO, *op. cit.*, 390.

Esa misma mezcla/acumulación problemática se da con otras cuestiones y en otros ámbitos de la Constitución: muchas de las nuevas constituciones (como las de Colombia o Perú, claramente) aparecen, a la vez, afirmando formulaciones económicas “neoliberales” y proclamas de fuerte contenido social que parecen indicar su vocación por formas económicas diferentes. Es muy común, también, en todas las constituciones “nuevas” comprometidas con los derechos indígenas, que se afirme simultáneamente el valor de la propiedad privada y el valor de la propiedad comunitaria (u otras similares), o que se afirme el valor de la economía privada, mixta, y pública, al mismo tiempo⁶.

Effectively, as observes Gargarella⁷, a good example of the concepts brought by these new constitutional texts that seem in evident tension with neoliberal economic aspirations (and its anthropocentric development models) is the *buen vivir* or *sumak kawsay*, which appears as a new structuring model, where human beings are seen as a part of the nature with which they must live in harmony⁸.

In Ecuador’s Constitution of 2008, the constitutional affirmation of *buen vivir* presents as one of its most notable consequences the recognition of nature as a subject of rights (*Pacha Mama*), which is explained in the constitution’s preamble, as well as in Art. 10 and Chapter VII (Art. 71-74)⁹.

Among the notable outcomes of a constitutional affirmation of *buen vivir*, which is enshrined in Bolivia’s Constitution of 2009 as *vivir bien*, was the World People’s Conference on Climate Change and the Rights of Mother Earth, held in April 2010 outside the Bolivian city of Cochabamba. There, a Universal Declaration of the Rights of Mother Earth was proclaimed, which recognizes in Art. 2 the inherent rights of Mother Earth and all beings that comprise it, as well as the right to water as a source of life¹⁰.

The *buen vivir* seeks the well-being of the entire community rather than solely the individual. Leonardo Boff wrote, “*Buen vivir* supposes a holistic and integrative vision of the human being inserted in the great earthly

⁶ R. GARGARELLA, *Sobre el “Nuevo constitucionalismo latinoamericano”*, in *Rev. Urug. Cienc. Polít.* [online], 27, 1/2018, 109-129.

⁷ *Ibidem*.

⁸ E. GUDYNAS, *Direitos da natureza. Ética biocêntrica e políticas ambientais*, Editora elefante, 2019; R. SANTAMARÍA, *El derecho de la naturaleza: fundamentos*. In: A. ACOSTA, E. MARTÍNEZ (a cura di), *La naturaleza con derechos: de la filosofía a la política*, Quito, 2011.

⁹ S. BALDIN, *Il buen vivir nel costituzionalismo andino. Profili comparativi*, Giappichelli, Torino, 2019.

¹⁰ G.O. MORAES, *O constitucionalismo ecocêntrico na américa latina, o bem viver e a nova visão das águas*, in *Revista da Faculdade de Direito da Universidade Federal do Ceará*, Fortaleza, v. 34, n. 1/2013, 4.

community that includes, in addition to the human being, the air, water, soil, mountains, trees and animals; it is to be in deep communion with *Pacha Mama* (Earth)¹¹. It also is a primary element of Andean cosmology, an alternative to competitive capitalism and unlimited growth, which contradicts a balance with nature¹².

Buen vivir implies breaking with anthropocentrism and overcoming the welfare state, which gives rise to a new way of viewing the relationship between man and nature, in order to ensure the well-being of people and the survival of other beings and ecosystems that make up the planet. Thus, the constitutions of Ecuador and Bolivia, based on the indigenous cosmology, depart from binary modern thinking and developmentalism and embrace biodiversity and environmental sustainability.

In this sense:

The adoption of the *buen vivir* model requires a profound change in consciousness, in the way human beings perceive and understand life and conduct themselves in it. This demands the demolition of old structures, leaving in their place a novel civilization based on the central value of life instead of deifying the economy, as is still being done today. It seeks for *buen vivir*, in the words of Gudynas, to break with the classic vision of development associated with perpetual economic growth, linear progress and anthropocentrism¹³.

Thus, the recognition of nature as a legal subject implies a break with anthropocentrism, which for Eduardo Gudynas explains much of the resistance against these constitutions, because their biocentric stance recognizes that beings and their environmental support systems have their own value in addition to possible uses for human beings; therefore, rights and obligations arise from and to nature. For Gudynas, "This establishes the new Constitution of Ecuador as the expression of a biocentric shift in the political ecology of Latin America"¹⁴.

Germana de Oliveira Moraes argues that in addition to a strong biocentric focus, the new Latin American constitutions demonstrate a

¹¹ Translated by the authors. L. BOFF, *Sustentabilidade: o que é, o que não é*, Vozes, Petropolis, 2016.

¹² G. MORAES, *op. cit.*, 07.

¹³ Translated by the authors. G. MORAES, *op. cit.*, 07.

¹⁴ Translated by the authors. E. GUDYNAS, *Los derechos de la naturaleza y la construcción de una justicia ambiental y ecológica en Ecuador*, in C.E. GALLEGOS-ANDA, C.P. FERNÁNDEZ (a cura di), *Los derechos de la naturaleza y la naturaleza de sus derechos*, Ministerio de Justicia, Derechos Humanos y Cultos, Quito (Ecuador), 2011, 113. In the same sense: A. ACOSTA, *O Bem viver: uma oportunidade para imaginar outros mundos*, Elefante, São Paulo, 2016.

normatization, through various principles, of the inseparable relationship of interdependence and complementarity of living beings, which according to the author, means the constitutions could more adequately be described as a form of ecocentric¹⁵ constitutionalism¹⁶.

To illustrate the innovations of the constitutions of Ecuador (2008) and Bolivia (2009), we will examine in greater detail the main provisions for the rights of nature in both constitutional texts.

Ecuador's Constitution of 2008 is a landmark of new Latin American constitutionalism. It contains about 63 provisions on environmental matters, all originally written in the constitutional text. Like the text of Bolivia's Constitution, the preamble of the Ecuadorian Constitution celebrates nature and *Pacha Mama*, "of which we are part, and which is vital for our existence." It commits to building "a new form of coexistence for citizens, based on diversity and harmony with nature, to achieve *buen vivir*, *el sumak kawsay*"¹⁷.

The main provisions on environmental matters are Art. 10, which recognizes nature's inherent condition of being a subject, Art. 14, which recognizes the right of the population to live in a healthy environment, and Art. 15, which establishes a commitment to clean energy, energy and food sovereignty, and the right to water:

Art. 10. Las personas, comunidades, pueblos, nacionalidades y colectivos son titulares y gozarán de los derechos garantizados en la Constitución y en los instrumentos internacionales. La naturaleza será sujeto de aquellos derechos que le reconozca la Constitución [...]

Art. 14. Se reconoce el derecho de la población a vivir en un ambiente sano y ecológicamente equilibrado, que garantice la sostenibilidad y el buen vivir, *sumak kawsay*. Se declara de interés público la preservación del ambiente, la conservación de los ecosistemas, la biodiversidad y la integridad del patrimonio genético del país, la prevención del daño ambiental y la recuperación de los espacios naturales degradados [...]

Art. 15. El Estado promoverá, en el sector público y privado, el uso de tecnologías ambientalmente limpias y de energías alternativas no contaminantes y de bajo impacto. La soberanía energética no se alcanzará en detrimento de la soberanía alimentaria, ni afectará el derecho al agua [...]¹⁸.

¹⁵ About the difference between "biocentrism" and "ecocentrism" in the new Latin American constitutions, D. LOURENÇO, *Qual o valor da Natureza? Uma introdução à ética ambiental*, Elefante, São Paulo, 2019.

¹⁶ G. MORAES, *op. cit.*, 11.

¹⁷ Translated by the authors. ECUADOR, ASSEMBLEIA NACIONAL, *Constitucion Política de la República Del Ecuador*, 2008.

¹⁸ *Ibidem*.

A chapter dedicated to the rights of nature (Art. 71-74) also is highly relevant:

Art. 71. La naturaleza o Pacha Mama, donde se reproduce y realiza la vida, tiene derecho a que se respete integralmente su existencia y el mantenimiento y regeneración de sus ciclos vitales, estructura, funciones y procesos evolutivos. [...]

Art. 72. La naturaleza tiene derecho a la restauración. Esta restauración será independiente de la obligación que tienen el Estado y las personas naturales o jurídicas de Indemnizar a los individuos y colectivos que dependan de los sistemas naturales afectados. [...]

Art. 74. Las personas, comunidades, pueblos y nacionalidades tendrán derecho a beneficiarse del ambiente y de las riquezas naturales que les permitan el buen vivir [...]¹⁹.

The holistic vision of the rights of Nature enshrined in Latin America has its source in the Andean philosophy of *Buen Vivir*, which, according to Ramiro A. Santamaría, can be summarized in four basic principles: relationality, correspondence, complementarity, and reciprocity²⁰, which focus on the idea that “*el ser humano no está en la naturaleza – o la naturaleza alberga al ser humano –, sino que el ser humano es la naturaleza [...] ambos son uno, de ahí que hacer daño a la naturaleza es hacerse daño a sí mismo*”²¹.

The Bolivian Constitution of 2009 refers environmental protection in several normative provisions²², but most relevant for the nature’s rights safeguard is the constitutional preamble, which also denotes axiological elements of Andean cosmology:

*En tiempos inmemoriales se erigieron montañas, se desplazaron ríos, se formaron lagos. Nuestra amazonia, nuestro chaco, nuestro altiplano y nuestros llanos y valles se cubrieron de verdes y flores. Poblamos esta sagrada Madre Tierra con rostros diferentes, y comprendimos desde entonces la pluralidad vigente de todas las cosas y nuestra diversidad como seres y culturas. Así conformamos nuestros pueblos, y jamás comprendimos el racismo hasta que lo sufrimos desde los funestos tiempos de la colonia*²³.

¹⁹ *Ibidem*.

²⁰ Other authors also mention these principles: H. ECHEVERRÍA, D. LEROUX, *The Rights of Nature in Ecuador: An Overview of the New Environmental Paradigm*, in C. FOLLETTE, C. MASER (a cura di), *Sustainability and the Rights of Nature in Practise*, CRC Press, New Zealand, 2017.

²¹ R. SANTAMARÍA, *op. cit.*, 210-211.

²² For example: articles 9, 30, 33 e 34, 80, 99, 108, 135, 189, 255, 264, 298, 299, 302, 304, 309, 311, 312, 316, 319, 337, 342, 343 ao 349, 351 ao 354, 357, 358, 373, 376, 378 ao 382, 385 ao 391, 395, 402, 403, 406 e 407. BOLIVIA. *Constitución política del Estado (CPE)*, 7 feb. 2009.

²³ *Ibidem*.

It should be noted that the text of the Bolivian Constitution does not expressly recognize the rights of nature like Ecuador's Constitution does. As E. R. Zaffaroni points out, in both constitutions, the Earth assumes the condition of a person, albeit expressly in the Ecuadorian text and tacitly in the Bolivian text, but with equal effects in both: "*cualquiera puede reclamar sus derechos, sin que se requiera que sea afectado personalmente, supuesto que es primario si se la considerase un derecho exclusivo de los humanos*"²⁴.

Nature's rights also find an important basis in the concept of "*Pacha Mama*" or "*Pachamama*", an expression that has Quechua and Aymara origins and is not traditionally a synonym for "Nature" but would be more extensive. According to Gudynas²⁵, for Andean cosmology there is no sense in dominating and controlling the environment, because humans should coexist with Pacha Mama which is the source of all life. The reproduction of social life is based, for these peoples, on bonds of reciprocity, complementarity and correspondence between human beings, the extended community and Pacha Mama²⁶.

As David R. Boyd points out, this movement inaugurated by Ecuador's 2008 Constitution has also spurred the recognition of rights of nature elsewhere in the world, like in Bolivia, U.S., New Zealand, Colombia, India, and other countries that have "enacted laws, filed lawsuits, and even amended constitutions to reshape our relationship with other species and the ecosystems within which we all live"²⁷. This can be seen, for example,

²⁴ E.R. ZAFFARONI, *La naturaleza como persona: de la Pachamama a la Gaia*, in C.E. GALLEGOS-ANDA, C.P. FERNÁNDEZ (a cura di), *Los derechos de la naturaleza y la naturaleza de sus derechos*, Ministerio de Justicia, Derechos Humanos y Cultos, Quito (Ecuador), 2011, 33. For more information about the theme, Cfr. M. CARDUCCI, *Prefazione*, in S. MESSINA, *Eco-democrazia: Per una fondazione ecologica del diritto e della politica*, Orthotes, Napoli-Salerno, 2019; e M. CARDUCCI, *Diritti della Natura*, in R. SACCO, *Digesto delle discipline pubblicistiche. VII Aggiornamento*, Utet, Torino, 2017.

²⁵ E. GUDYNAS. *Direitos da natureza. Ética biocêntrica e políticas ambientais*, Elefante, São Paulo, 2019, 143.

²⁶ The expression *pachamama* is formed by the words '*pacha*' which means universe, world, time, place, and '*mama*' translated as mother. According to remaining vestiges, Pachamama is an Andean myth that refers to 'time' linked to the earth. In addition, "at present, there is a consensus among authors that among the Indians of the Andes (Peru, Ecuador, Colombia, Bolivia, Chile and Argentina), Pachamama carries the meaning of 'great earth, director and sustainer of life'. Z. TOLENTINO, L. OLIVEIRA, *Pachamama e o direito à vida: uma reflexão na perspectiva do novo constitucionalismo latino-americano*, in *Veredas do Direito*, Belo Horizonte, 12, n. 23/2015, 313-335.

²⁷ D. BOYD, *A legal revolution that could save the world*, ECW Press, Toronto, 2017.

from the data provided by the United Nations' Harmony with Nature project²⁸.

In short, the constitutional acknowledge of nature's rights involve the recognition of "Nature"²⁹ as an entity, a complex being that embraces diversity and singularity in many forms of life, a complex subject of law. Therefore, also means the recognition of essential values intrinsic to the non-human elements of the biosphere and the ecosystems autonomous protection. Pointing that the environment, the Nature, and the different forms of life are protected not for human's welfare or human rights, needs or aspirations (even though environmental safeguard is *condition sine qua non* for human life), but because Nature holds a fundamental right to existence and maintenance of its (their) life cycles.

3. Brazilian environmental constitutionalism: between anthropocentrism and biocentrism

This section analyzes the Brazilian legal system and its peculiarities in terms of environmental constitutionalism. It first offers a general overview of the environment in Brazilian constitutional history. Then, it discusses the debate between anthropocentrism and biocentrism in the Constitution of the Federative Republic of Brazil of 1988, which is currently in force.

3.1 Environmental constitutional law in Brazil

The 1988 Constitution of the Federative Republic of Brazil (*Constituição da República Federativa do Brasil* or CRFB/1988) was the first in the country's history to use the term "environment." Previously, environmental protection was not specifically addressed by the constitution³⁰. In fact, previous constitutional texts mentioned only matters

²⁸ UNITED NATIONS. *Harmony with Nature. Rights of Nature law and policy*. 2022. Available at: <http://www.harmonywithnatureun.org/rightsOfNature/>.

²⁹ For further debates about the idea of "Nature" cfr. P. VIDALI, *Storia dell'idea di Natura: dal pensiero greco alla coscienza dell'antropocene*, Mimesis, Milano, 2022; e R. FERNÁNDEZ, *Derechos de la naturaleza: una mirada desde la filosofía indígena y la Constitución*, in C. GALLEGOS-ANDA, C. FERNÁNDEZ (a cura di), *Los Derechos de la Naturaleza y la Naturaleza de sus Derechos*, Ministerio de Justicia, Derechos Humanos y Cultos, Quito, 2011.

³⁰ P. MACHADO, *Direito ambiental brasileiro*, XIV ed, Malheiros, São Paulo, 2006, 115.

like the prohibition of industrial activities contrary to citizens' health,³¹ a division of authority to deal with mines and land³², subsoil resources, mining, water, forests, hunting and fishing³³.

In addition to provisions relating to the division of authority between the various entities of the federation, the constitutions of 1934, 1937 and 1946 outlined provisions for the protection of natural beauty, historical, artistic and cultural heritage,³⁴ and landscapes and areas especially endowed with nature,³⁵ in addition to the protection of plants and herds against diseases and other threats.³⁶ The 1st Amendment of 1969 contained the first reference in Brazil's legal system of the term "ecological," establishing in Art. 172 that, "The law will regulate, upon prior ecological survey, the agricultural use of land subject to weather and calamity. The misuse of land will prevent the owner from receiving incentives and aid from the Government"³⁷.

Thus, the issue of environmental protection didn't gain importance until the mid-20th century and wasn't an important element of the Brazilian legal system until the adoption of the 1988 constitution. Older constitutions in the hemisphere, such as the U.S. Constitution of 1776, also did not specifically address the issue³⁸.

In fact, environmental protection didn't begin to become legally relevant until the 1960s. Globally, the United Nations Conference on the Human Environment of 1972, known as the Stockholm Conference, which 113 countries participated in, set the precedent for international environmental protection. From that conference, the first "green" constitutions began to emerge, enshrining the concept of a Social Democratic State of Environmental Law. Examples include Portugal's Constitution of 1976, Spain's Constitution of 1978, and Brazil's Constitution of 1988³⁹.

The absence of environmental regulations in Brazil's Constitution did not mean, however, that there were no legal regulations in place prior to 1988 to control activities considered detrimental to the environment.

³¹ Art. 179, XXIV, 1824 Brazilian Constitution.

³² Art. 34, n. 29, 1891 Brazilian Constitution.

³³ Art. 5º, XIX, j, 1934 Constitution; and Art. 16 from 1937 Brazilian Constitution.

³⁴ Art. 10, III and Art. 148 (1934) and Art. 175 (1946 Brazilian Constitution).

³⁵ Art. 134, 1937 Brazilian Constitution.

³⁶ Art. 18, 1937 Brazilian Constitution, letters "a" and "e".

³⁷ P. MACHADO, *op. cit.*, 115.

³⁸ E. MILARÉ. *Direito do ambiente*, X ed., in *Revista dos Tribunais*, São Paulo, 2015, 162.

³⁹ E. MILARÉ, *op. cit.*, 171.

According to Herman Benjamin (2010, 109), examples from this period include the Forest Code of 1965 and Law 6.938/81 (the Law of National Environmental Policy), which today are milestones of the evolution of Brazilian environmental law.

As Milaré notes (2015, 162), although no constitutional provision specifically addressed the environment, lawmakers promoted laws to protect the environment that were aimed at "protecting human health." This meant that the basis for environmental protection historically has been described as protecting human health with the assumption, either implicitly or explicitly, that this meant protecting environmental health as well.

Brazil's 1988 Constitution fundamentally changed the legal status of environmental issues by recognizing the environment as an autonomous legal asset and a system organized in the form of a constitutionalized environmental public order⁴⁰. In this sense, it is seen as an eminently environmentalist constitution, as it dealt with the matter in a broad and modern way⁴¹.

Unlike its predecessors, the *CRFB/1988* established a new concept of rights by structuring the protection of environmental values in its own chapter, thus institutionalizing the right to the environment as a diffuse and fundamental right of the individual. Art. 225 states that, "Everyone has the right to an ecologically balanced environment, a good for common use by the people and essential to a healthy quality of life, imposing on the public authority and the community the duty to defend and preserve it for present and future generations"⁴².

This article defines an ecologically balanced environment as a right for everyone, a common good for the people that is essential to a healthy quality of life, its defense and preservation the responsibility of society and the state. There is, however, doctrinal divergence regarding the scope of the expression "all" used in the constitutional text.

Fiorillo⁴³, for example, argues that the expression chosen by a particular constituent should be analyzed based on a systematic reading of the constitutional text, so that the word would be directly connected with the provisions of the *caput* in Art. 5 of the Federal Constitution, which covers Brazilians and foreigners residing in the country. On the other hand,

⁴⁰ A. BENJAMIN, *Direito constitucional ambiental brasileiro*, in J.J.G. CANOTILHO, J. LEITE (a cura di), *Direito constitucional ambiental brasileiro*, III Ed., Saraiva, São Paulo, 2010, 162.

⁴¹ J. SILVA, *Direito ambiental constitucional*, X ed., Malheiros, São Paulo, 2013, 23.

⁴² Translated by the authors. BRAZIL, *Constituição da República Federativa do Brasil*, 1988.

⁴³ C. FIORILLO, *Curso de direito ambiental brasileiro*, XIII ed., Saraiva, São Paulo, 2007, 13.

the author also mentions the existence of a doctrinal interpretation that the term “all” in Art. 225 would designate “any and every human person.”

In contrast, Machado⁴⁴ understands that “the right to a balanced environment belongs to everyone, as a human person, regardless of their nationality, race, sex, age, health status, profession, income or residence,” so that the use of the expression “everyone” “extends the scope of the legal norm, since by not specifying who has the right to the environment, it prevents the exclusion of anyone.”

Additionally, Brazilian doctrine concludes that by declaring the ecologically balanced environment as a “good for the common use of the people,” the Federal Constitution of 1988 recognized its nature as a “subjective public right,” making it an enforceable right in the realm of the state itself, and that sometimes environmental protection stems from disputes between public authority and the community⁴⁵.

For Fiorillo⁴⁶, the constitutional text created a third kind of good in the legal system, which is a diffuse good insusceptible to appropriation but subject to management, thus dissociating the protection of environmental values from the institutions of ownership. In this sense, the Federal Constitution of 1988 also expanded the concept of the environment, inserting the social and environmental functions of property as a basis for environmental management, going beyond the concept of private and public property. The public authority then becomes not the owner of environmental assets, but rather a manager that owes society satisfaction regarding their management, which is why the participation of civil society in the management of environmental assets is justified⁴⁷.

For Herman Benjamin⁴⁸, the right to the environment provided for by Art. 225 of the *CRFB/1988* is also considered a third-generation right, based on “fraternity” or “solidarity” being the right to collective and individual exercise, owned by the community (“all”). Thus, Art. 225 of the Federal Constitution of 1988 also enshrined the notion of diffuse trans-individual rights, which means that the right to a balanced environment transcends the notion of the individual and goes beyond the realm of individual rights and obligations. Its nature is indivisible, as it belongs to everyone, and at the

⁴⁴ P. MACHADO, *op. cit.*, 116.

⁴⁵ E. MILARÉ, *op. cit.*, 163.

⁴⁶ C. FIORILLO, *op. cit.*, 14.

⁴⁷ P. MACHADO, *op. cit.*, 118.

⁴⁸ H. BENJAMIN, *op. cit.*

same time, no one owns it. Its ownership is undetermined⁴⁹, therefore, it is not limited to a single person, but extends to an indeterminate collectivity⁵⁰.

Despite the Federal Constitution of 1988 having foreseen the ecologically balanced environment as a trans-individual right, the constitutional text did not present the definition for the expression used. This is because the legal definition of "environment" had already been inserted into the Brazilian legal system with the advent of the National Environmental Policy Law of 1981, according to which the environment is "the set of conditions, laws, influences and interactions of a physical, chemical and biological order, which allows, shelters and governs life in all its forms"⁵¹.

In a narrow sense, the environment can also be defined as "the natural heritage, nature, considered statically and dynamically, that is, the set of all living beings in their relationships with each other and with the elements that make up the planet (the earth's crust and the atmosphere)"⁵². However, when establishing the protection of legal-environmental values, the Federal Constitution dealt with the concept of environment in a broad and indeterminate way, covering not only nature or the natural environment, but also the artificial, cultural and work environment; that is, goods created by humanity itself.

Therefore, legally, the expression "environment" can be seen narrowly as covering only the concept of the natural environment, or broadly as covering all original (natural) and artificial nature⁵³. For José Afonso da Silva, the environment would then be the "interaction of the set of natural, artificial and cultural elements that provide the balanced development of life in all its forms"⁵⁴.

In summary, the natural environment can be conceptualized as nature itself, and natural resources such as flora, fauna, air, water and soil. The work environment would encompass "the health, life and well-being of the worker and the population surrounding the work environment"⁵⁵. The

⁴⁹ C. FIORILLO, *op. cit.*, 09.

⁵⁰ P. MACHADO, *op. cit.*, 116.

⁵¹ Art. 3, legal act No. 6.938/1981, our translation. BRAZIL, *Lei n. 6.938, de 31 de agosto de 1981. Dispõe sobre a Política Nacional do Meio Ambiente, seus fins e mecanismos de formulação e aplicação, e dá outras providências.*

⁵² E. PETERS, P. PIRES, J. HEIMANN (a cura di), *Manual de direito ambiental*, III ed., Juruá, Curitiba, 2015, 9.

⁵³ E. MILARÉ, *op. cit.*, 139.

⁵⁴ J. SILVA, 2 *op. cit.*, 20, translated by the authors.

⁵⁵ Art. 200, VIII BRAZIL, 1988, *op. cit.*.

artificial environment, on the other hand, is built, or covers urban spaces in particular, such as cities and buildings. The cultural environment would be a value to be protected, that is, the cultural heritage formed by material goods (monuments, paintings, architecture) and immaterial goods (forms of expression, poetry, music)⁵⁶. Thus, Art. 225 of *CRFB/1988* would be a synthesis of all the environmental provisions present in the constitution, as throughout the constitutional text the right to the environment repeatedly appears by citing the protection of health, work, the ecological function of rural property, etc.⁵⁷

The expression in Portuguese "*meio ambiente*" is often criticized for being redundant, since the term "*ambiente*" (environment) would imply the idea of "*meio*." Nevertheless, the expression is already consecrated by popular usage, legislation, doctrine and jurisprudence⁵⁸. The term "ecologically balanced," in turn, would designate "the harmony or proportion and sanity between the various elements that make up ecology – populations, communities, ecosystems and the biosphere"⁵⁹. This ecological balance must, according to Art. 225, be sought and protected both by the government and by the community in general.

Finally, the importance of the constitutional provision of environmental protection should be noted, since as a constitutional norm, the right to an ecologically balanced environment and environmental protection are no longer mere political commitments, but rather are now endowed with normative force. That is, they seek to conform and order reality⁶⁰.

3.2 *The Brazilian Constitution of 1988: Between anthropocentrism and biocentrism*

Among the most common views that reflect the human relationship with the terrestrial ecosystem, three stand out, namely: anthropocentric, biocentric and ecocentric. Anthropocentrism, according to Milaré⁶¹, is a generic concept in which man is the center of the universe and the

⁵⁶ E. PETERS, P. PIRES, J. HEIMANN, *op. cit.*, 19.

⁵⁷ H. BENJAMIN, *op. cit.*, 123.

⁵⁸ M. SETTE, *Manual de direito ambiental*, III Ed, Juruá, Curitiba, 2014, 35.

⁵⁹ P. MACHADO, *op. cit.*, 119.

⁶⁰ K. HESSE, *A força normativa da Constituição (Die normative Kraft der Verfassung)*, Fabris, Porto Alegre, 1991.

⁶¹ E. MILARÉ, *op. cit.*

maximum and absolute reference for all other beings. This interpretation, based on the assumption that reason is an exclusive attribute of man and "is the greatest and determinant value of the purpose of things," serves as the basis for the current legal system. Its origins stem from the philosophical movement known as Humanism, which gave rise to the Renaissance and gained strength in the Western world due to rationalist positions⁶².

For Junges (2010, 19), this anthropocentric view would be severely predatory, as it has historically forced man to conquer lands in view of exploitation and enrichment, based on an ideology of progress promoted by capitalism and a false notion of the overabundance of natural resources, leading to the current ecological crisis. According to Junges, ecological discussion emerged as a response to this exaggerated anthropocentrism and led to two developments: mitigated anthropocentrism and biocentrism.

In summary, weak or mitigated anthropocentrism admits the existence of human duties or a human responsibility for natural resources (for nature) for future generations, so that nature would be protected in order to meet the material needs of humans. This concept was further divided between those who would maintain a conservationist ethic and those who would promote a preservationist one.

Biocentrism, in turn, defends man's duties before nature (to nature), seeing it as a subject of law that has intrinsic value. As such, there would be no distinction of treatment between human and non-human beings. This camp was divided between two anti-anthropocentric ethics: a mitigated biocentrism that prioritizes individual entities, and an ecocentrism (or global biocentrism) that emphasizes totalities and natural processes irreducible to their components⁶³.

Milaré⁶⁴ notes that beginning in the mid-20th century, man's view of the environment began to change, departing from the view of man as the center of the universe, and enshrining all living beings as the center of concerns and interests, which mitigated anthropocentrism and gave rise to biocentrism. The fundamental ecocentric concept "defends the non-instrumental value of ecosystems, and of the ecosphere itself, whose balance reveals a greater concern than the need for each living being to flourish in individual terms" (Amado, 2012, 22, translated by the authors). Thus, to ensure a balance of the ecosystem, human beings, as a component of nature, are required to limit agricultural and industrial activities.

⁶² P. ANTUNES, *Direito ambiental*, VII Ed, Lumen Juris, Rio de Janeiro, 2004, 26.

⁶³ J. JUNGES, *(Bio) ética ambiental*, Unisinos, São Leopoldo, 2010.

⁶⁴ E. MILARÉ, *op. cit.*, 108.

According to Paulo de Bessa Antunes, the main rupture that environmental law caused in the legal order was to that of the traditional anthropocentrism model, because although the legal doctrine is typically based on the subject of law, environmental law uses a vast system of presumptions and attributions of legal and procedural personality to communities and associations, and recognition of some legal status of animals and ecosystems, so that it has even been possible to defend non-human forms of life⁶⁵.

Art. 225 establishes that the environment is essential to a healthy quality of life, and thus, to human dignity itself, which is enshrined as the foundation of the Brazilian Republic (Art. 1, item III, CRFB/88). In this sense, Machado⁶⁶ argues that the *caput* of Art. 225 of the Brazilian Constitution follows anthropocentric reasoning because it enshrines the fundamental right of the human person as essential to people's life and dignity. On the other hand, the author also notes that Art. 225 balances anthropocentrism and biocentrism with a concern for harmonizing and integrating human beings and biota.

Fiorillo⁶⁷, in turn, states that by establishing the dignity of the human person as a basis for interpreting all constitutional norms, the *CRFB/98* explicitly adopted an anthropocentric view, according to which the right to the environment is aimed at the satisfaction of human needs. For the author, life that is not human can only be protected by environmental law insofar as its existence implies a guarantee of the healthy quality of human life.

On the other hand, Antônio Herman Benjamin⁶⁸ argues that the valuation of the environment by the 1988 Constitution has a hybrid character, as it was based on a combination of mitigated anthropocentric arguments (marked by intergenerational solidarity evidenced by a concern for future generations), biocentric arguments (the author cites as an example the notion of preservation of the *caput* of Art. 225) and even ecocentric arguments. The author also emphasizes that the 1988 Constitution, unlike its predecessors, did not view environmental resources as abundant or infinite.

In the same sense, Paulo de Bessa Antunes⁶⁹ argues that the Brazilian Federal Constitution affirms the human dimension of environmental law in

⁶⁵ P. ANTUNES, 2004, *op. cit.*, 25.

⁶⁶ P. MACHADO, *op. cit.*

⁶⁷ C. FIORILLO, *op. cit.*

⁶⁸ H. BENJAMIN, *op. cit.*, 105.

⁶⁹ P. ANTUNES, *op. cit.*, 2004, 11.

which the protection of environmental goods would have the function of ensuring human beings an ecologically balanced environment, but the legal technique would recognize the “rights” of non-human beings with the aim of guaranteeing them adequate legal protection. This can be recognized in the constitutional text establishing the duties of public authority (Art. 225, § 1) to “preserve and restore essential ecological processes and preserve the diversity and integrity of the country’s genetic heritage.” In that case, these provisions would point to an ecological dimension of the constitutional text.

4. *Rights of Nature in Brazil*

To fulfill the objective of investigating how the rights of nature have appeared in the Brazilian context, it is necessary to analyze two areas where the matter has been debated: judicial analysis and municipal legislation.

First, we will analyze the reasoning behind an unprecedented legal action brought before the Brazilian judiciary. This legal action sought to apply to the national legal order the understanding of nature as a holder of rights. Next, we will discuss municipal legislation in the country that has sought to implement this type of understanding.

4.1 *Rights of nature in the Brazilian judiciary: The Rio Doce basin lawsuit*

In November 2015, a disaster in the city of *Mariana, Minas Gerais*, caused by the collapse of the *Fundão* dam, which was operated by the *Samarco* mining company, flooded and buried the subdistrict of *Bento Rodrigues*, leaving a trail of destruction all the way to the coast of *Espírito Santo*. More than 600 km of watercourses were affected, and approximately 34 million cubic meters of mining tailings were dumped into the region's rivers and waterways. The wave of toxic sludge reached all the way to the Atlantic Ocean after passing through the state of *Espírito Santo* via the *Rio Doce*.

According to data from the Brazilian Institute of the Environment and Renewable Natural Resources, or IBAMA⁷⁰, the disaster destroyed 1,469 hectares, including Permanent Preservation Areas (“*Áreas de Preservação*”

⁷⁰ INSTITUTO BRASILEIRO DO MEIO AMBIENTE E DOS RECURSOS NATURAIS RENOVÁVEIS (IBAMA), *Recuperação ambiental. Rompimento da Barragem de Fundão: Documentos relacionados ao desastre da Samarco em Mariana/MG*, 16 mar. 2016.

Permanente,” or APPs), and caused the deaths of 19 people, along with other socio-environmental damage, such as the isolation of inhabited areas, the displacement of communities due to the destruction of their dwellings and urban structures, the destruction of native fauna and flora, restrictions on fishing following the decimation of wild aquatic fauna during the closed fishing season, difficulty generating electricity by the affected plants, and changes in the quality and quantity of water. In addition, the tragedy affected not only the surviving residents of the *Bento Rodrigues* district, who were forced to resettle in new locations, but also the entire population that depends on the region’s existing hydrographic basin. Also affected were the treatment of water for human consumption and the fishing-based economy, elements that further contributed to displacement in the *Rio Doce* region.

The catastrophe dumped 62 million cubic meters of iron ore mud into the *Rio Doce*, killing 19 people and displacing 1,265. Two districts of Mariana (*Bento Rodrigues* and *Paracatu de Baixo*) and one district of *Barra Longa* (*Gesteira*) were affected, while the district of *Bento Rodrigues*, where 236 families lived, was flooded and buried in mud. The damage affected 38 municipalities (35 in *Minas Gerais* and three in *Espírito Santo*), threatened the lives of 6 million people, and killed 98 species of fish in the *Rio Doce* (29,000 fish carcasses were collected). Birds, especially the tern, were left without food. And 1,176 hectares along the banks of the *Rio Doce* (46% pasture and 43% native vegetation) were destroyed.

The disaster prompted an unprecedented legal action in Brazil, filed on behalf of the *Rio Doce* basin against the federal government (the federal “Union”) and the state of *Minas Gerais*, aimed at recognizing the ecological entity as a subject with rights worthy of protection, based on the concepts of nature brought about by new Latin American constitutionalism. The lawsuit was filed on Nov 5, 2017, in the name of the *Rio Doce* basin via the NGO Pachamama, before the 6th Federal Court of Belo Horizonte/MG (No. 1009247-73.2017.4.01.3800). It sought recognition as a subject of law for the *Rio Doce* basin and to force the public authority to devise a plan of disaster mitigation and prevention to help protect the entirety of the river basin’s population. The lawsuit stated:

THE RIO DOCE HYDROGRAPHIC BASIN, herein represented by ASSOCIAÇÃO PACHAMAMA, a non-profit legal entity, [...] files a lawsuit against the FEDERAL UNION, a legal entity governed by public law, and the STATE OF MINAS GERAIS, a legal entity governed by public law, for the establishment of the NATIONAL REGISTER OF MUNICIPALITIES SUSCEPTIBLE TO DISASTERS and for the preparation of the CIVIL DEFENSE AND PROTECTION PLAN OF THE STATE OF MINAS GERAIS, with the

participation of representatives of academic institutions and riverine peoples (indigenous or not)⁷¹.

The lawsuit was divided into three main topics: 1) “Who am I?” 2) “What did you do to me?” and 3) “What should they have done?” The first topic introduces the *Rio Doce* basin as a federal hydrographic basin (86% of which is in *Minas Gerais* and 14% in *Espírito Santo*) that supplies water to more than 3.5 million people in 230 municipalities. It also has the largest steel complex in Latin America, and several mining companies operate there.

The same section also briefly explains the water cycle as an essential ecological process that affects the biodiversity of animals and plants in the basin. It also explains the importance of the *Rio Doce* for the *Krenak* people, an indigenous community that inhabits the region.

In its reasoning, the lawsuit cites provisions of the constitutions of Ecuador (2008, Art. 71) and Bolivia (2009, Art. 34), which as mentioned above recognized the condition of a subject of rights for nature (in Ecuador), and the active legitimacy of the collectivity extended to any person safeguarding the environment (in Bolivia). It also notes that these legal protections that are guaranteed by the constitutions of Ecuador and Bolivia also have been confirmed by the Constitutional Court of Colombia, which in 2016 considered the *Atrato* River a subject of biocultural law. That court determined that a deep relationship exists between the river and riparian peoples (indigenous or not), and they both should be treated as a single entity. Thus, the interdependence between biological diversity (the river) and cultural diversity (communities) would give the river the status of a subject of biocultural law — that is, the status of an ecosystemic legal entity.

Thus, the Colombian court essentially declared the legal personality of the hydrographic basin (the river and its tributaries) of the *Atrato* River. In addition, the same ruling called for the protection of the *Atrato* River by a commission of guardians, composed of representatives from the communities and the state, and advised by a panel of experts. The government was ordered to draft and implement, with input from members of the river communities, plans to clean up the hydrographic basin and restore its ecosystems, neutralize, and eradicate illegal mining, and restore traditional forms of subsistence and food.

⁷¹ Translated by the authors. BRAZIL, *Justiça Federal de Minas Gerais, 6ª Vara Cível. Sentença. Autos n. 1009247-73.2017.4.01.3800, Petição Cível, Juíza Federal Sônia Diniz Viana, 21 sep. 2018.*

The Brazilian lawsuit argues that Brazil has ratified the same international standards and conventions as Colombia, including ILO Convention 169 on Indigenous and Tribal Peoples (1989), the U.N. Convention on Biological Diversity (1992), the U.N. Declaration on the Rights of Indigenous Peoples (2007), the OAS Declaration on the Rights of Indigenous Peoples (2016) and the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage (2003). For this reason, the Brazilian river communities should have the same cultural rights that were guaranteed to the communities on the *Atrato* River, the lawsuit argued.

It also noted that ILO Convention 169 (Art. 13) obliges the state to respect the spiritual importance the land has for indigenous and tribal peoples. Because the *Rio Doce* basin is recognized by the *Krenak* people as an ancestor (grandfather), it must be respected by the Brazilian state and not be treated as an object, as this would violate the dignity of the *Krenak* people, as this community and the basin would form a single biocultural entity. "Not recognizing me as a subject of law is equivalent to denying the *Krenak* culture, which is prohibited by Convention 169," the lawsuit stated.

It also cites the U.N. Declaration on the Rights of Indigenous Peoples (Art. 25), the OAS Declaration on the Rights of Indigenous Peoples (Art. 25), the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage (Art. 14, 15) and the U.N. Convention on Biological Diversity (Art. 8, j).

The second topic of the lawsuit, titled "What have you done to me?", demonstrates the environmental damage caused by the disaster in *Mariana/MG*, mostly with images. According to the lawsuit, the federal court of *Minas Gerais* acknowledged the damage caused to the *Rio Doce* basin in a federal civil lawsuit brought by the Public Ministry, which sought reparations totaling 155 billion *reais*. That lawsuit cites the socio-environmental consequences suffered by river residents and the contamination of the basin by heavy metals, which extended more than 600 km to the coast.

In the third topic, "What should they have done?" the author, speaking as the voice of the *Rio Doce* basin, argues that "Brazil has not complied with the National Policy on Adaptation to Climate Change (Law 12187/2009) and the National Policy on Civil Defense and Protection (Law 12,608 /2012), which actively contributed to *Samarco's* socio-environmental disaster," so "the omissive public entities (Union and *Minas Gerais*) must be coerced by the Judiciary, the last frontier in the defense of my right to a healthy existence, to comply with their obligations to prevent disasters, so that I

may have the right to regenerate myself, without the risk of suffering another such brutal aggression.”

Finally, it sought a) the recognition of the *Rio Doce* hydrographic basin as a subject of law; and b) the recognition of the broad legitimacy of all people to defend the right to a healthy existence of the *Rio Doce* hydrographic basin.

On the merits, the lawsuit requested confirmation of the injunction granted and the definitive condemnation of the Union and the State of *Minas Gerais* to comply with the following guidelines of the National Plan for Adaptation to Climate Change: 1) the creation of a national registry of municipalities with areas susceptible to disasters, which is provided for in Art. 3-A of Law 12,340/2010, within a maximum period of six months or in a period that the court deemed reasonable, due to the urgency of disaster prevention measures; 2) the preparation of the *Minas Gerais* Disaster Prevention Plan, provided for by Art. 7 of Law 12,608/2012, within six months or any period deemed reasonable by the court, due to the urgency of disaster prevention measures, and with the mandatory participation of representatives of academic institutions and riverine peoples (indigenous or not).

Marcelo Kokke⁷² points out that the first curiosity that arises is the absence in the lawsuit of the company that generated the pollution and caused the environmental damage. Only the federal government and the state of *Minas Gerais* are mentioned. In addition, the *Rio Doce* basin is represented by the *Pachamama* Association, a nonprofit, private legal entity headquartered in *Rio Grande do Sul*, which is approximately 2,100 km from *Mariana/MG*. So, the plaintiff would have ignored the provisions of Art. 5, item V, paragraph 'b' of legal act 7.347/85 (Law of Public Civil Action), which provides that the plaintiff association must include among its institutional purposes the environmental protection of the object of the action.

Kokke also criticizes the fact that at no time does the plaintiff mention the Law for National Water Resources Policy. On the contrary, the plaintiff argues that Brazil failed to comply with the National Policy on Climate Change, as cited in Law 12.187/09. But it is difficult to link the environmental disaster in *Mariana* with the emission of greenhouse gases.

However, despite the criticisms of other authors (Maia Melo, 2018) and the flaws, which are debatable, it should be recognized that the action

⁷² M. KOKKE, *Distorções na ação "ajuizada" pelo rio Doce mostram déficit processual*, in *Con.jur*, São Paulo, 14 nov. 2017.

in question is unprecedented and has strong support in terms of comparative constitutional law and environmental protections provided for by international treaties to which Brazil is a signatory, as well as the Federal Constitution of 1988, which as noted, describes a mitigated anthropocentric perspective.

It is noteworthy, finally, that a ruling was issued on Sept. 21, 2018, that dismissed the initial petition on the grounds that the *Rio Doce* basin did not have legal standing to act as a plaintiff. The ruling stated that the Brazilian legal system does not confer legal standing to nature (Brazil, 2018).

The filing of the legal action also reinforces the pressure on those responsible for the environmental damage to the *Rio Doce* basin to be punished, as the disaster has reached unprecedented proportions in Brazil. However, public authorities do not seem to view the issue with urgency. In this sense, the case of *Mariana* is an example of the negligence of public authorities, both in terms of inspection and prevention of environmental damage, as well as in terms of punishing those responsible.

Despite the outcome of the lawsuit, which was terminated in *Minas Gerais* in 2018, it should be noted that it was the first attempt to open the Brazilian legal system to the recognition of nature as a subject of rights. Since then, some progress has been made in this direction, notably through municipal legislation, as will be discussed below.

4.2 *Nature's rights in municipal legislation*

Driven by the new Latin American constitutionalism and the movements in favor of *buen vivir* and the rights of nature, some Brazilian municipalities decided to update their “organic laws,” which are based on the constitutions of Brazilian municipalities.

In an unprecedented move, the Municipality of *Bonito*, in the state of Pernambuco, recognized the rights of nature in a modification of its organic law in late 2017. Chapter IV, Art. 236 states:

The Municipality recognizes the right of nature to exist, prosper and evolve, and shall act to ensure all members of the natural community, human and non-human, in the Municipality of Bonito, have the right to an ecologically healthy and balanced environment and the maintenance of ecosystem processes that are necessary for quality of life; it is the responsibility of the public authority and the community to defend and preserve nature, for present and future generations of the earth's community members (Bonito, 2015, our translation).

This article also establishes that the municipal entity must ensure the effectiveness of these rights through the expansion of its public policies in the areas of environment, health, education, and economy, "in order to provide conditions for the establishment of a life in harmony with Nature." Art. 237 states that the government must ensure community participation in environmental issues and provide means of ecological awareness of the population⁷³.

In the same sense, in 2019, an amendment to the Organic Law of *Florianópolis*, the capital of the state of Santa Catarina, promoted the sustainable management of common use resources and agro-ecological practices to "guarantee the quality of life of human and non-human populations, respecting the principles of good living and granting nature ownership of rights" (Art. 133). It also assigns responsibility to public authorities for promoting public policies and instruments for nature to acquire ownership of rights:

Art. 133. The Municipality is responsible for promoting diversity and harmony with nature and preserving, recovering, restoring and expanding natural ecosystem processes, in order to provide the socio-ecological resilience of urban and rural environments; planning and natural resource management should promote the sustainable management of common use resources and agro-ecological practices in order to guarantee the quality of life of human and non-human populations, respect the principles of good living and grant nature the ownership of rights.

The public authority will promote public policies and tools for environmental monitoring so that nature acquires ownership of rights and is considered in municipal budget programs and in government projects and actions, and decision-making must be supported by Science, be based on the principles of natural conservation, observe the precautionary principle, and seek to involve the Legislative and Judiciary powers, the State and the Union, other municipalities in the Metropolitan Region and civil society organizations. (Amendment to Organic Law No. 47/2019)⁷⁴.

It is also worth mentioning that due to a disaster (the disruption of a sewage treatment dam) in January 2021 that severely contaminated the *Lagoa da Conceição* in *Florianópolis* (SC), a public civil action was filed by the Environmental Law Research Group (*Grupo de Pesquisa em Direito Ambiental - GPDA*) of the Federal University of Santa Catarina (*Universidade Federal de Santa Catarina - UFSC*), under the coordination of Professor Dr. José Rubens Morato Leite, with Lagoa as its titleholder.

⁷³ Translated by the authors. BONITO, CÂMARA MUNICIPAL DO BONITO, ESTADO DE PERNAMBUCO, *Lei Orgânica*, 2015.

⁷⁴ Translated by the authors. FLORIANÓPOLIS. *Emenda à Lei Orgânica nº 47. Lei Orgânica do Município de Florianópolis/SC*, 2019.

The process is still in its initial stages and hasn't been ruled on by the judiciary yet. However, in view of the existence of municipal legislation that grants nature ownership of rights, it is expected that this lawsuit in *Florianópolis* will have a different outcome than that of the *Rio Doce* basin, which was heard by the federal court of *Minas Gerais*.

A logical consequence of the federative pact is that municipal legislation needs to be in line with the Brazilian constitutional order. Thus, revisions of the organic laws of *Bonito* (PE) and *Florianópolis* (SC) show that the Constitution of the Federative Republic of Brazil of 1988 enables the defense of the rights of nature through an adequate hermeneutics of Art. 225. Therefore, it is up to the interpreter to make this interpretive effort in the sense of extending the protection of the environment through the recognition of the rights of nature.

5. Conclusions

From what has been discussed, it can be concluded that the normative limitations and the possibilities of applying (protecting) the rights of nature in Brazil constitute, in fact, an interpretative issue. Thus, depending on the understanding of the current constitutional text, it can be used as a limit or as a possibility for the recognition and safeguard of nature's rights.

This is because despite the Brazilian Federal Constitution of 1988 not expressly recognizes nature as a subject of law and rights, as did the Constitution of Ecuador (2008), the Brazilian constitutional text has a mitigated anthropocentric standing point and is open to a biocentric perspective.

From a multidimensional perspective, in a non-reductionist approach, it is possible to observe that Brazilian Constitution has an ecological dimension⁷⁵, able to guarantee nature and biodiversity protection, as established in Art. 225, § 1, which lists the shared duties of the public authority and society to "preserve and restore essential ecological processes" and "preserve the diversity and integrity of the country's genetic heritage."

While some scholars and jurists believe that it is incongruous for the current Brazilian legal system to file a lawsuit in the name of the *Rio Doce* basin, this experience has, nevertheless, brought to the forefront of debate

⁷⁵ I. SARLET, T. FENSTERSEIFER, *Direito Constitucional Ambiental: Constituição, Direitos Fundamentais e Proteção do Ambiente*, in *Revista dos Tribunais*, São Paulo, 2011.

new trends in environmental contemporary constitutionalism. These trends, taking place in Latin America, in new constitutional texts, such as in Ecuador (2008) and Bolivia (2009), and in constitutional courts, such as in Colombia, raise a critical review of anthropocentric models of state, society and development. These have reinforced the importance of valuing life in general by recognizing the rights of nature.

Despite the referred process was dismissed without a resolution of the merits, and based essentially on procedural considerations, the lawsuit would have had support in the *caput* and paragraphs of Art. 225 of *CRFB/1988*, which are concerned with harmonizing and integrating human beings and nature. It is worth reiterating that in the system of the Brazilian Constitution of 1988, one can combine anthropocentric, biocentric and even ecocentric arguments.

This understanding is shown to be more in line with the constitution's compass, considering the new demands being placed upon it by the community of constitutional interpreters⁷⁶, as well by constitutional comparisons and dialogue with a culture⁷⁷ based on the protection of life in its different dimensions. From this perspective, it is possible to conclude that a formal amendment to the Brazilian constitutional text is unnecessary to protect nature as a subject of rights. Given that the "Green Constitution," as Brazil's Constitution became known after its enactment in 1988, already has guarantees for the protection of ecosystems in harmony with human beings.

The advent of new municipal legislation recognizing the rights of nature in Brazil seems to reinforce this interpretative potential of the 1988 constitutional text and provide a greater incentive to recognize this interpretation in both the legislative and judicial realms.

⁷⁶ P. HÄBERLE, *Hermenêutica Constitucional a sociedade aberta dos intérpretes da constituição: contribuição para a interpretação pluralista e procedimental da constituição*, Tradução de Gilmar Ferreira Mendes, Sérgio Antônio Fabris editor, Porto Alegre, 1997.

⁷⁷ P. HÄBERLE, *Teoría de la constitución como ciencia de la cultura*, Tecnos, Madrid, 2000.