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PACE LAW SCHOOL

PACE UNIVERSITY

Leonardo Munhoz

**The Environmental Limitations to Property Rights in Brazil and the
United States of America**

White Plains

Leonardo Munhoz

**The Environmental Limitations to Property Rights in Brazil and the
United States of America**

Master Thesis presented to the
LLM course, as the writing
requirement for the Master of
Laws degree in Environmental
Law, oriented by

Professor David N. Cassuto

White Plains

January 2014

"All men by nature desire knowledge".
Aristotle

Acknowledgements

I would like to thank Professor David N. Cassuto for the honor of sharing his knowledge, spending time and effort and giving me the opportunity to achieve this goal, despite all difficulties regarding language and distance.

Extended thanks to all I had the pleasure to study and work at Pace University School of Law, who also made this possible; particularly my friends Anna, Beatriz, Debora, Gregorio and Professor Mark Shulman.

I also would like to recognize the Environmental Law team of Pontifícia Universidade Católica de São Paulo (PUC-SP), especially Professor André Geraldes and friend Mariana Battochio for all the support and guidance.

Lastly, I am extremely grateful for parents, Mario and Leonor, my brother Mauricio and my aunt Ana Lúcia, who played an integral role, helping me when I needed them, even through all adversities.

.

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Abstract

This thesis aims to comparatively analyze the legislative evolution that environmental protection has experienced in the Brazilian versus the American legal systems and their relationship with property rights.

Demonstrably, Brazil's concern with the environment actually came into focus in the 1980s and it therefore received treatment within the Federal Constitution of 1988, as a diffuse right, contributing to better, stronger environmental protection.

Similarly, the protection of the environment in the American Constitution and its statutes as well as their enforcement and interpretation within the legal system are explored.

Of concern is the notion that environmental protection and third-generation rights consequently imply limitations to the concept of property and its use, since in order to ensure a greater common good, a perceived burden must be imposed upon the property owner, thereby conflicting with keystone property rights.

Therefore, this thesis will discuss how environmental protection and property rights can coexist by establishing a comparison between the countries, evaluating the advantages and disadvantages of each system, and assessing how they can be improved to pursue a balance.

Keywords: Property rights - Environmental protection - Common good - Sustainability - Administrative limitation - Land use - Regulatory takings - Inverse condemnation - Physical invasion - Diminished economic value.

Esta tese tem como principal objetivo analisar a evolução legislativa que a tutela do meio ambiente sofreu no sistema jurídico brasileiro e americano e sua relação com o direito de propriedade.

É clara a preocupação do Brasil com o meio ambiente, a qual começou na década de 1960 e posteriormente foi colocada de forma expressa na Constituição Nacional de 1988 como um interesse difuso, direito de todos e inclusive de futuras gerações.

Também, analisar a evolução da tutela do bem ambiental na legislação americana e como isso é interpretado no sistema jurídico.

Entretanto, a proteção ambiental e os direitos de Terceira geração implicam diretamente em uma restrição do direito de propriedade e seu gozo, já que para se proteger um bem difuso, um ônus é imposto para o proprietário individual; conflito o qual questiona o direito fundamental da propriedade.

Nesse sentido, será discutido como a proteção ambiental e o direito de propriedade podem coexistir, estabelecendo uma comparação das vantagens de desvantagens de cada sistema, de forma que se encontre um equilíbrio

Introduction

The environment did not become a global concern overnight. It was an evolutionary cause born of several facts, which certainly had the cumulative effect of a change in the attitude that humanity should take towards consumption lifestyle and industrialization.

Concerns over the environment started after the Second World War with the creation of atomic weapons and nuclear energy, new forces which could generate mass destruction if not wisely used. At the same time, it was becoming clear that the concept of consumption as a standard was unsustainable on a global scale, causing governments to start considering sustainability for economic activities.

Therefore, the United States began domestically creating environmental statutes during the Nixon administration (1969-1974). These were acts of major importance, not only because they were the first of their kind, but also because they regulated and created basic standards of quality for the environment.

In Brazil, this type of legislation was developed almost a decade later with the National Environmental Policy (Política Nacional do Meio Ambiente-PNMA) in 1981. With its never heretofore seen concepts of sustainability and environmental responsibility, it is still, at the time of this writing, one of the most globally well regarded environmental policies.. Eventually the PNMA was absorbed by the Democratic Constitution passed in 1988, which resulted

in an article establishing the right to a balanced and healthy environment for all current and future generations.

Also, it is worth pointing out that this focus on environmental protection did not happen only at the national/domestic level of both countries, but also within International Law, There were major conferences held in Stockholm in 1972, the Brundtland Report in 1987, the Rio declaration in 1992, Rio + 20 in 2012, and the decisions of the International Court of Justice, all of which created sources of hard and soft law, which surely empowered those domestic policies.

Thus, the research of this thesis will focus on the evolution within the Brazilian and American legal systems, and thus will evaluate environmental law and the contradictions regarding the protection of the environment with its administrative limitations and takings against the basic and fundamental property right.

This thesis will examine how the keystone right of property and the environmental protection system can coexist without creating a disproportional and unfair burden on the property owner.

Concepts and History

1.1 The Origin of Property Rights

Property is a human creation; it is any physical or intangible entity that is owned by a person or jointly by a group of people or a legal entity. It originated with the necessity to define the land and its limits regarding ownership and right to use. Such a need came mostly with the invention of agriculture, firstly because this evolution allowed communities to establish themselves permanently, enabling the production of their basic food necessities without depending on hunting activities. Secondly, agriculture demanded space, and thus originated the main idea of fencing and borders. Therefore, a community could plant its crops in order to provide food to its inhabitants in a peaceful manner, a concept that became the keystone right of most legal and economic systems.

However, this idea was not well defined during ancient times, as it was common to mix law, mostly comprised of oral traditions, with religion. This practice is clearly observed when the personal possessions of the deceased were buried with him. With landownership on the other hand, this did not happen, mostly due to physical impossibility, resulting in the tradition of transferability, the legal instrument employed to pass the right of use to the heir apparent or other specific designated person.

During Roman times, the basic structure of the economy already revolved around the property concept, using this right to produce wealth. This was so imperative to Romans, that it was one of the first societies to create written laws and theories to justify this right, since its creation enabled the capture of a physical space by a specific individual excluding others.

The Romans did not define property itself and ownership, but the right to use, also known as the *dominium*¹. Some authors claim that this process was the initial movement to clearly define what property was, because it had been mixed with the notion of possessing other things and the concept of possession, such as women, sons, slaves, being part of a whole called *mancipium*. Since, the family unit was controlled by the older male figure, also called *pater familia*. Eventually the Romans differentiated property from possessions and the merely "right to use" with the *nihil commune habet proprietas cum possessione* (property has nothing to do with possession), reflecting a tremendous legal evolution.

Eventually the idea of property in the Roman Empire was absolute, enabling use (*jus utendi*), enjoyment (*jus fruendi*) and even the right to abuse or destroy it. However, with the evolution of the Roman society, these approaches became more flexible, adding the notion of moral obligations and duties to the property right. Later on with the Napoleon Civil Code, the absolute use and enjoyment of property was limited by its conformity with the law, similar to modern times.

¹ JÚNIOR, J. CRETILLA, CURSO DE DIREITO ROMANO, 20 (RIO DE JANEIRO, FORENSE) (1997).

For the regions of Barbarian traditions, the notion of property rights did not evolve in a similar manner, in other words, property and ownership remained mixed with the notion of possession and the right to use due to the *Gewere*².

This remained the case until the XIII century, with the adoption of the Roman and Canonical laws, which understood that property and possessions were two separated entities. Thus the property right was defined as the *proprietas dominium*, in other words, property was ownership (law) and possession the right to use (fact)

In order to justify the right of one specific individual's use of the land and ownership while excluding others, a Social Contract Doctrine evolved describing hypothetical conditions that preceded governments, the legitimization of the state of government, and the creation of laws., These contracts also defined the State of Nature Theory in order to defend the creation of property, since it was a major issue to justify this unilateral action taking the land for an exclusive use.

Therefore, the State of Nature theory, argued two main approaches:

First, the "positive" approach defended that lands, animals and chattels were initially unowned in a state of nature, allowing that any individual could keep what he could take for the production of wealth through his work, therefore excluding others. John Locke, the main scholar defending this point

² "The main notion in the law of property was *gewere*, or the power exercised by the owner, which did not clearly distinguish between legal title and physical control. Various forms of limited ownership were recognized. Land was treated differently from movables; originally it had belonged to each family collectively." from *ENCYCLOPEDIA BRITANNICA*, available at <http://global.britannica.com/EBchecked/topic/232270/gewere>.

of view, argued that man's pure essence along with the necessity of creating wealth makes this a natural process, an evolutionary thought. He also emphasized the importance and close relationship between property use and wealth. In other words, property was a wealth-creating institute and that resources only become valuable due to work performed by individuals and therefore those individuals could claim the ownership of the property.³

"Though the earth and all inferior creatures be common to all men, yet every man has a "property" in his own "person." This nobody has any right to but himself. The "labour" of his body and the "work" of his hands, we may say, are properly his. Whatsoever, then, he removes out of the state that Nature hath provided and left it in, he hath mixed his labour with it, and joined to it something that is his own, and thereby makes it his property. It being by him removed from the common state Nature placed it in, it hath by this labour something annexed to it that excludes the common right of other men. For this "labour" being the unquestionable property of the labourer, no man but he can have a right to what that is once joined to, at least where there is enough, and as good left in common for others.⁴"

Also

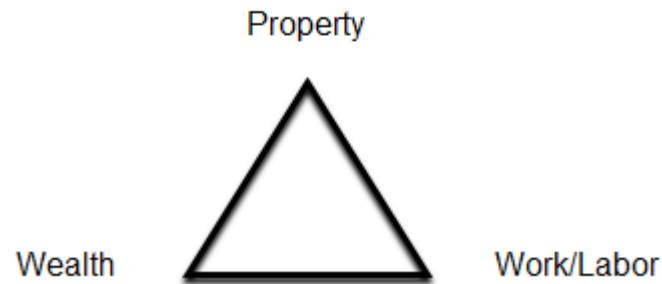
"God gave the world to men in common; but since he gave it them for their benefit, and the greatest conveniencies of life they were capable to draw from it, it cannot be supposed he meant it should always remain common and uncultivated. He gave it to the use of the industrious and rational, (and labour was to be his title to it;) not to the fancy or covetousness of the quarrelsome and contentious. He that had as good left for his improvement, as was already taken up, needed not complain, ought not to meddle with what was already improved by another's labour: if he did, it is plain he desired the benefit of another's pains, which he had no right to, and not the ground which God had given him in common with others to labour on, and whereof there was as good left, as

³ JOHN LOCKE, TWO TREATISES OF GOVERNMENT, THE SECOND TREATISE, § 40-43, (1690)

⁴ JOHN LOCKE, TWO TREATISES OF GOVERNMENT, THE SECOND TREATISE, § 26, (1690)

that already possessed, and more than he knew what to do with, or his industry could reach to⁵”.

Thus, as Locke described, this idea of interconnection between property, production of wealth and work, could be illustrated with the following image:



In contrast, the “negative” approach is the idea that all property in the state of nature is accepted as common good, and it was with the creation of the State and the Law that led to the invention of property. This allowed for the taking of property by an individual, and would, by extension, limit the rights of others, as exclusion would occur. Jeremy Bentham defended this negative approach by suggesting that the evolution of property right is a human process, existing only by Law after the creation of the State, since from a natural perspective this institute would not prevail in nature but is a creation of law. As observed below:

“There have been from the beginning, and there always will be, circumstances in which a man may secure himself, by his own means, in the enjoyment of certain things. But the catalogue of these cases is very limited. The savage who has killed a deer may hope to keep it for himself, so long as his

⁵*Id.*, at § 34

cave is undiscovered; so long as he watches to defend it, and is stronger than his rivals; but that is all. How miserable and precarious is such a possession! If we suppose the least agreement among savages to respect the acquisitions of each other, we see the introduction of a principle to which no name can be given but that of law. A feeble and momentary expectation may result from time to time from circumstances purely physical; but a strong and permanent expectation can result only from law. That which, in the natural state, was an almost invisible thread, in the social state becomes a cable.⁶

Despite one being naturalistic while the other claims the invention of the State justifies the creation of property, both ideals set an evolutionary bottom-up process that would make it the key right. This did not come to be by choice, but by necessity.

The main goal of property right is to be able to produce land value through work. This concept deeply sculpted modern society, including not only its economy, but also its moral and civil behavior. Other rights depend on and are derived from the acquisition and management of property.

It is logical that work upon the land will only be performed with the securing of property. Investment in labor will occur only with the promise of the rewards of this work. This promise can only be guaranteed by the ownership of said property.

Accordingly, property ownership will lead individuals to plan carefully and prudently, as otherwise they will have to bear the losses of mismanagement. Therefore, property ownership results in improvement and efficiency. Conversely, in societies where property rights are not well secured,

⁶ JEREMY BENTHAM, THEORY OF LEGISLATION, 112–13 (R. HILDRETH TRANS., 4TH ED., TRÜBNER & CO., LUDGATE HILL 1882) (1789).

it is possible to observe economic turmoil and deficiencies. Places where the government is constantly challenging property rights and their strengths as an economic safeguard face low production of wealth, lack of investment, and inefficiency as outcomes which consequently reflects on the social and cultural behavior of these societies.⁷

As previously stated, property shaped moral and civil behavior of modern society, because as an instrument of power, property ownership enables the spread of power across many individuals avoiding its concentration on the hands of one specific group or person.

Several authors, such Friedrich Hayek⁸ and Milton Friedman⁹, important critics of socialist regimes, argued that free market economies that secure property rights tend to have political advantages because they broaden the ability to earn money and own property, creating a healthy cycle, thereby supporting other basic individual rights. Furthermore, property ownership makes wealth an alternative source of political power, and consequently, the more that people own property and earn money, the more diffuse the political power will be. This results in more diverse interests being defended and strengthens individual political and civil rights and liberties, a known as the Spread Power Argument of property¹⁰.

⁷ See ROSE, CAROL M., "PROPERTY AS THE KEYSTONE RIGHT?" (1996), 331. FACULTY SCHOLARSHIP SERIES. PAPER 1808. Available at [HTTP://DIGITALCOMMONS.LAW.YALE.EDU/FSS_PAPERS/1808](http://digitalcommons.law.yale.edu/fss_papers/1808)

⁸ See FRIEDRICH A. HAYEK, ROAD TO SERFDOM (1944)

⁹ See MILTON FRIEDMAN, CAPITALISM AND FREEDOM (1962)

¹⁰ See ROSE, CAROL M., "PROPERTY AS THE KEYSTONE RIGHT?" (1996), 340. FACULTY SCHOLARSHIP SERIES. PAPER 1808. Available at [HTTP://DIGITALCOMMONS.LAW.YALE.EDU/FSS_PAPERS/1808](http://digitalcommons.law.yale.edu/fss_papers/1808)

In addition, since it indirectly permits individual political and civil liberties and rights, property ownership also provides individuals the ability to become independent and to self-govern. Persons are independent in the sense that the property owner does not need assistance from government and consequently is not as easily affected by the government's decision or opinions.

Cass R. Sunstein describes what happens to the citizen when property ownership is not the norm:

“In a State in which private property does not exist, citizens are dependent on the good will of government officials....Whatever they have is a privilege and not a right...Any challenge to the state may be stifled or driven underground by virtue of the fact that serious challenges could result in the withdrawal of the goods that give people basic security”¹¹

In Medieval Europe, landowners did not submit completely to the head of state, but rather divided the power with him and were declared co-regent, co-governor etc., clarifying the importance and independence attributed through landownership. In this system, those that did not own land were mere subjects with no political strength. On the other hand, in the United States property was distributed evenly and extensively through the colonies. Despite the fact that landowners were simple farmers, they had political strength and the ability to self-govern, creating the culture to speak freely in a political environment.

¹¹ CASS R. SUNSTEIN, ON PROPERTY AND CONSTITUTIONALISM, 14 CARDOZO L. REV. 907, 915 (1993)

Property acquired by commerce only started to occur with the development of capitalism during the later Middle Ages, since at that time, property ownership was only available for nobles or relatives of the king. In addition, the Catholic belief that profit and wealth were a sin made the new commercial class extremely despised. With the development of commerce, the Protestant Reformation, and the Scottish enlightenment, the commercial pursuit of property was altered. Laws eventually solidified this process and became the pillar of modern economy.

To conclude, as noted *supra*, property not only is a keystone right, but is also the most significant stronghold of the economy, as there is undoubtedly a strict relation between property and wealth. Secondly, it is the pillar of other basic rights and liberties, which shape the modern society moral, laws and ethics.

Finally, after all the historical evolution process presented, the legal definition of property is interpreted differently from nation to nation. However because there is a common past, the basic pillars of property ownership are the same:

- Control of the right to use it
- The right to any benefit from the property
- The right to transfer or sell the property
- The right to exclude others from the property.

What changes from State to State is the effectiveness of those pillars and the limitations imposed by governments in order to pursue its interests and the domestic way of life.

1.2 Origin of the Environmental Good and Protection Concepts

Initially, there were two types of property that originated with the creation of the State and the legal system:

- Private property, which consists of a physical or an intangible entity that is owned by a person, group or legal entity, none of which are related to the government or the State. This type of property can occur not only as physical things, but also as intellectual property, with the owner enjoying the rights, freedoms, and benefits of this ownership.
- Public Property, which consists of the same characteristics as the private, however the owner that retains the rights, freedoms, and benefits of ownership is the State or entities related to it.

However, classifying the goods related to ownership as private or public is insufficient for modern times due to the high complexity of ownership dynamics given that property can belong to an undetermined group of people and that ownership may not be assignable to any person. As such, a good may be relevant to society as a whole, and therefore, a single entity should not enjoy indiscriminately all the rights and freedoms accorded with its ownership.

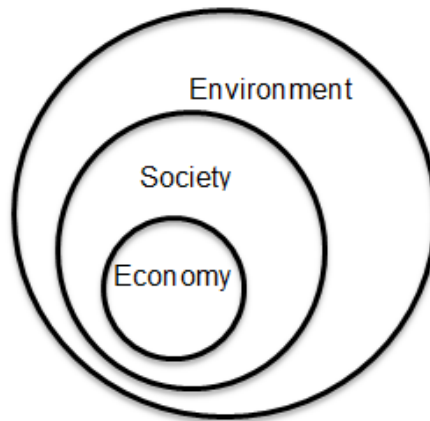
Rodolfo de Camargo Mancuso affirms::

“The reality it is much more complex and its elements are constantly interacting, in a manner, which you cannot limit this phenomena in two categories: private and public. The ‘feared’ third category has been much present in society, composed by elements which exceed this binomial”¹²

He argued that the “third” category became imperative for modern legal systems due to environmental concern and protection.

This third category began to emerge in the 1960’s when the world agreed that the importance of a balanced environment was necessary in order to sustain our way of life and the economy, because processes of the postindustrial era were consuming natural resources in a harmful way and endangering the maintenance of the ecosystems. It is important to point out that the relationship between society, economy and environment is deeply interconnected and that economy and society are bounded by environmental limitations. Thus a destroyed environment will consequently have negative impacts on the society and the economy.

¹² Translated by the author: “a realidade é muito complexa e seus elementos estão constantemente interagindo, de modo que não se pode enquadrar todo esse fenômeno em dois compartimentos estanques: público e privado. O ‘temido’ terceiro termo de há muito está presente na sociedade, formado de elementos que passam esse binômio” from RODOLFO DE CAMARGO MANCUSO, INTERESSES DIFUSOS : CONCEITO E LEGITIMAÇÃO PARA AGIR , P. 42 (7ª Ed., Rt, 2011,)



That general concern led to the Stockholm Declaration of 1972 in which several nations recognized not only that a healthy environment was a human right, but also that there was an obligation to preserve it for future generations, as seen below:

“Principle 1

Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations. In this respect, policies promoting or perpetuating apartheid, racial segregation, discrimination, colonial and other forms of oppression and foreign domination stand condemned and must be eliminated.¹⁴”

And

“Principle 2

¹³ “THE CASE FOR STRONG SUSTAINABILITY.” In: OTT, K. & P. THAPA (EDS.) (2003). *GREIFSWALD’S ENVIRONMENTAL ETHICS*. GREIFSWALD: STEINBECKER VERLAG ULRICH ROSE.

¹⁴ DECLARATION OF THE UNITED NATIONS CONFERENCE ON THE HUMAN ENVIRONMENT (1972), available at <http://www.unep.org/Documents.Multilingual/Default.asp?documentid=97&articleid=1503>

The natural resources of the earth, including the air, water, land, flora and fauna and especially representative samples of natural ecosystems, must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate¹⁵

These phrases initiated the essential ideas of sustainable development that, in 1987, were discussed at the U.N. World Commission on Environment and Development (the Brundtland Commission) and officially solidified in 1992 with the Rio Declaration, concluding that sustainability is only achieved by environmental protection and preservation:

“Principle 4

In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.¹⁶”

In the meantime, nations also developed their own domestic environmental regulations, which to a certain extent reflected the new principles stated in those declarations. However a new problem appeared: how can society protect the environmental good, with no specified owner of property, which could be public or private?

As previously stated, the solution was to classify a third kind of good, a diffuse right, and to define a new third generation rights.

¹⁵ *Id.*

¹⁶ RIO DECLARATION ON ENVIRONMENT AND DEVELOPMENT (1992), available at http://www.unesco.org/education/nfsunesco/pdf/RIO_E.PDF

Early, the first-generation rights regulated the defense of the individual against the State. In other words, civil (property) and political rights were regarded as crucial to the basic liberty of the human being. These were limitations imposed on the State to not act, a negative posture otherwise known as *Laissez-faire*. These rights were the fruits of the *Déclaration des Droits de l'Homme et du Citoyen*¹⁷, 1789, approved by the French National Assembly. This document was strongly inspired by the Naturalist Theory argued by John Locke, Jean-Jacques Rousseau, and Montesquieu. It was also influenced by the American Revolution in 1776, a major turning point in history as it defended the independence of a colony supported by individual rights and liberty ideals.

The second-generation rights are related to equality, and the concern with social, economic and cultural issues. These rights ensured that every human being has the same opportunity and treatment. The development of these rights took place with the consolidation of capitalism and the industrial revolution, as well as concurrently with the ascension of socialism/communism defined by Karl Marx. They were reflected in the Mexican Constitution (1910) and also the Weimar Constitution of Germany (1919), both of which emphasized a more socialist government where the State should be more proactive and provide education, health and labor laws, a departure from the exclusive non-active State of the liberal first-generation

¹⁷ The document clearly states the negative posture regarding the State and the *Laissez-faire Theory* in "Article IV - La liberté consiste à faire tout ce qui ne nuit pas à autrui: ainsi l'exercice des droits naturels de chaque homme n'a de bornes que celles qui assurent aux autres membres de la société la jouissance de ces mêmes droits. Ces bornes ne peuvent être déterminées que par la loi." – "Liberty consists in the freedom to do everything which injures no one else; hence the exercise of the natural rights of each man has no limits except those which assure to the other members of the society the enjoyment of the same rights. These limits can only be determined by law."

rights era which only defended individual freedom. To consolidate this process, after the Second World War, the Human Rights Declaration of 1948 established the ultimate statement of equality:

“Article 1.

All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood.¹⁸”

This was a strong response to the atrocities committed during the war.

Finally, during the 1950s and 1960s, as environmental concerns increased, the third-generation rights were born. This generation addressed fraternity and was an evolution and improvement of the previous two generations of rights. This right defined that the good, nature in this case, was relevant to society as a whole and therefore must not have a determined owner. This right belongs to the community, and thus is a diffuse right, a transindividual and indivisible good.

An important provision of this generation of rights is that for the diffuse good, the State has a management function by establishing limits to the use of property in order to ensure its protection or its continuity to future generations, and this function is not related to ownership¹⁹.

These restrictions were previously mentioned by Garret Hardin in the Tragedy of the Commons²⁰, and were primarily used to discuss the issue of

¹⁸ THE UNIVERSAL DECLARATION OF HUMAN RIGHTS (1948), available at [HTTP://WWW.UN.ORG/EN/DOCUMENTS/UDHR/INDEX.SHTML](http://www.un.org/en/documents/udhr/index.shtml)

¹⁹ PAULO AFONSO LEME MACHADO, DIREITO AMBIENTAL BRASILEIRO, 132 (MALHEIROS, 18 ED, 2010)

²⁰ GARRETT HARDIN, THE TRAGEDY OF THE COMMONS, SCIENCE, NEW SERIES, VOL. 162, NO. 3859. (DEC. 13, 1968)

population growth and the exhaustion of natural resources, concept also related to pollution²¹. The potential tragedy was illustrated via the example of a pasture being used by all, with each herdsman trying to pasture as many cattle as possible in order to maximize production. Eventually, this disorganized maximization will lead to an exhaustion of resources because of internalization of the benefits and externalization of the costs. The author concluded that the solution for this problem was the creation of norms to impose limitation for the use of the commons, avoiding the tragedy.

Hardin's work emphasized that the lack of limitations deriving from an unregulated common property is harmful, since it is in the human nature to maximize the gains, consequently sharing the burdens and negativities if the good is unregulated.

These limitations also would explain the social function of the property within the Brazilian legal system, as well as other environmental norms and statutes regarding land use (zoning) and pursuit of the preservation of those commons, which in the present day are intensively used and illustrate abandonment of the absolute power over property use as protected by by Law (legislative power) or by the monitoring of the state or agencies (Police Power)²².

This resulted in a relative notion over property, which Professor Rudolph von Jhering wrote about in 1878:

²¹ Hardin developed his idea based on the studies of William Foster Loyd. See W.F. Loyd, Two lectures on the checks to population, Oxford University, Press, Oxford England, 1833

²² Police Power is a discretionary act entrenched by law. In Brazil and in the United States it must be balanced and proportional in order to protect the greater good, being the main tool of monitoring by the State, see STEFANIE SOVAK, THE TAKING OF AMERICA?, 28 PACE L. REV. 129 (2007) 133

AVAILABLE AT: [HTTP://DIGITALCOMMONS.PACE.EDU/PLR/VOL28/ISS1/6](http://digitalcommons.pace.edu/PLR/VOL28/ISS1/6)

"There is no absolute property, i.e., property that is freed from taking into consideration the interests of the community, and history has taken care to inculcate this truth into all people."²³,²⁴

Therefore the diffuse interest is an instrument to regulate those areas of private or public ownership with the goal of protection and preservation of nature, which is a common good, creating environmental law. More importantly, despite the fact that property rights are essential for modern society's development of the economy, the rights to the property are not absolute.

It is worth noting that in the United States, the idea of diffuse right is not as definite, broad and present as it is in Brazil, which is also a legal definition.

These administrative restrictions now will be analyzed in a specific way as to how they are interpreted by the Brazilian and American legal systems.

²³ See NOLON, JOHN R., "PRIVATE PROPERTY INVESTMENT, LUCAS AND THE FAIRNESS DOCTRINE" (1992). PACE LAW FACULTY PUBLICATIONS. PAPER 190. Available at [HTTP://DIGITALCOMMONS.PACE.EDU/LAWFACULTY/190](http://digitalcommons.pace.edu/lawfaculty/190)

²⁴ R. VON JHERING, DER GEIST DES ROMISCHEN RECHTS AUF DEN VERSCHIEDENEN STUFEN SEINER ENTWICKLUNG 7 (4TH ED. 1878).

Environmental Protections in the United States and Property Limitations

2.1 Origins in Common Law and Torts

"The common law is not static; its life and heart is its dynamism ability to keep pace with the world while constantly searching for just and fair solutions to pressing societal problems."²⁵

Common Law was created in England during the early middle ages in the King's Court (Curia Regis) leading to the establishment of several general principles which continue to operate. All British colonies inherited this legal system, including the United States, as the roots came with the first English settlers who claimed the tenets of common law as their birthright. Eventually, after America became independent, common law was adopted by the newly born states as well as the eventual federal government.

Common law is a body of laws based on customs and general principles embodied in case law, which is used as precedent and applied in situations where there is no statute or codified laws. These principles and rules of action are applicable to the government as well as to the security of person and property.

In the case of *Kansas v. Colorado*, the Supreme Court stated:

²⁵ HAMSON V. MONTGOMERY COUNTY BD. OF EDUC., 456 A.2D 894, 903 (MD. 1983).

“As it [the common law] does not rest on any statute or other written declaration of the sovereign, there must, as to each principle thereof, be a first statement. Those statements are found in the decisions of the courts, and the first statement presents the principle as certainly as the last. Multiplication of declarations merely adds certainty. *For after all, the common law is but the accumulated expressions of the various judicial tribunals in their efforts to ascertain what is right and just between individuals in respect to private disputes.*”²⁶

These facts make common law flexible²⁷ and evolutionary at the same time as it examines traditions and the guiding principles.

This flexibility allowed for traditional common law to be transformed into environmental law through a slow and evolutionary process, in which new conflicts created through industrialization and technology presented new needs for the creation of rules and compensations, making courts weigh costs and benefits in disputes between private interests and social goals.

The field of torts reaches back many centuries in regards to remedies to plaintiffs who had suffered various civil wrongs or injuries from the relationships between community members.

“there [will] of necessity be losses or injuries of many kinds sustained as a result of the activities of others. The purpose of the Law of torts is to adjust these losses, and afford compensation for injuries sustained by one person as a result of the conduct of another.”²⁸

²⁶ See HERBERT POPE, THE ENGLISH COMMON LAW IN THE UNITED STATES, 24 HARV. L. REV. 6, 12 (1910).

²⁷ See MICHAEL D. AXLINE, THE LIMITS OF STATUTORY LAW AND THE WISDOM OF COMMON LAW, 38 ENVTL. L. REP. NEWS & ANALYSIS 10268 (2008) “The common law, by contrast, is not subject to political pressures and bureaucratic inertia. Plaintiffs in common law actions often have stronger incentives for initiating and prosecuting such actions, such as the immediate risk of personal harm and the potential to recover economic damages. Moreover, although proof of causation is required in common law cases, judges and juries still have flexibility to act in the face of uncertainty. The “more probable than not” standard of proof, for example, allows juries to make decisions in the face of uncertainty far greater than would be tolerated in the scientific arena.”

²⁸ WRIGHT, INTRODUCTION TO THE TORTS LAW, 8 CAMBRIDGE L.J. 238 (1944).

The goal of tort law is to compensate the injuries suffered by the plaintiff due to a wrongful act of others.

Eventually with this process, torts became the approach commonly used by courts to address environmental harms and the injuries produced by them.

2.1.1 Tort Law and Categories of Torts.

Tort law can be defined as a broad category of law that addresses situations where one person's actions have caused another person harm. In contrast to criminal law, which is intended to protect society from the actions of the individual, tort law protects individuals from each other. Individuals harmed by others can seek redress in civil court and if their claims are upheld, they are awarded compensation in proportion to their injury.

It is important to point out that in Civil law countries, no similar or corresponding instrument to tort law exists, and the closest similarity to a tort in Civil law would be the legal figure of the delict. In addition, the Tort law has its differences among common law countries, therefore, the English tort law it is not identical to the American one, since they do not share the same precedents and did not have the same evolution.

In the United States, torts can be divided into two categories, now analyzed:

A) Intentional

The first main category of tort is the intentional tort. Torts can be intentional when the defendant acts in an intentional way to cause harm to another person. Therefore, it must be shown that he or she has exercised

some measure of volition (or positive will) in performing the act. The intentional torts are classified into several defined types, which come from three main branches: intentional torts to persons (battery, assault, false imprisonment and infliction of emotional distress), intentional torts to property (trespass to land, trespass to chattels, conversion) and finally to reputation, which deal with issues and competing interests relating to freedom of speech and the press under the fifth amendment.

B) Unintentional (Negligence Tort)

The second main category of tort is the unintentional tort: a wrongful act, which has no intention, and is characterized by a disrespect of duty. “Every person in society owes a general duty of care to avoid harm to the interest of other persons. This means that we all have an obligation not to engage in activities creating unreasonable risk of injury to innocent parties or their property”²⁹. The unintentional tort is the type mainly adopted to address environmental damages and their effect on the plaintiffs, assuming that pollution is an unintentional act.

The environmental unintentional torts are subdivided in well-defined categories:

- Trespass:

²⁹GERALD MCALINN, DAN ROSEN, & JOHN STERN, AN INTRODUCTION TO AMERICAN LAW 212 (2D ED. 2010)

In the case of *Borland v. Sanders Lead Company*³⁰, the court defined trespass as:

“an intrusion which invades the possessor’s interest in exclusive possession, whether the intrusion is by a visible or invisible pieces of matter or by energy, which can be measured only by the mathematical language of the physicist.”³¹

This rule consequently rejected the former definition that trespass was only applied with the dimensional test (there should be a direct and substantial injury). Now the force and energy test is also applied (there does not have to visible matter or energy), which encompasses pollution and its harms much better.

- Nuisance:

A nuisance tort is the use of property by one party that results in the substantial interference with the reasonable use, enjoyment or value of another’s property, with injury to life or health, offense to the senses, violation to the principles of decency, or obstruction of free passage.

Nuisance torts can be divided into private and public. A private tort is based on the interference of individual, private property rights, while a public tort is the interference with public rights. The nuisance tort was the first common law instrument used to remedy environmental harm.

This type of tort is vital to land use and takings jurisprudence, since it allows an exception for the takings argument, a fact that will be analyzed further on.

³⁰ *BORLAND V. SANDERS LEAD CO.*, 369 So. 2D 523, 529 (ALA. 1979).

³¹ PLATER, ABRAMS, ET AL., ENVIRONMENTAL LAW & POLICY 73 (4th ed., 2010).

- Strict liability³²:

The strict liability tort is a standard for liability which may exist in either a criminal or civil context. A rule specifying strict liability makes a person legally responsible for the damage and loss caused by his or her acts and omissions regardless of culpability (including fault in criminal law terms, typically the presence of *mens rea*). Strict liability is prominent in tort law (especially product liability), corporate law, and criminal law.

To conclude, Tort law is an important part of the legal system. Its flexibility allows tort law to address a wide variety of situations which criminal law cannot cover. Though this same flexibility means the civil court system is sometimes abused by profit seekers, frivolous lawsuits are a small price to pay for the protection the public receives. The flexibility of tort law allowed for adaptation in environmental litigation and to compensate injured plaintiffs for environmental damages, as seen in the following.

2.1.2 Tort Remedies and Issues

The ultimate goal of most tort remedies is to recover monetary damages. However, with environmental use, tort remedies were broadened in order to cover these new problems regarding exposure to harmful pollution, hazardous waste substances and other environmental damages. The

³² The Brazilian Law has a similar instrument called "responsabilidade objetiva", which is stated in the law 6.938/81, article 14, §1, used for environmental litigation, stating that there is no element of culpability, however, it has a much broader concept than the American definition, addressing environmental protections and civil wrongs.

remedies for these instances can be based on more than one type of common law tort. The use of common law tort for environmental protection actually began in the 1960s when plaintiffs started to convince judges that environmental harms were real and needed new specific remedies derived from the traditional principles of common tort law, because no statutes or regulations regarding environmental protection existed at that time³³.

As a result it was determined that the same requirements for torts must be present in these cases. In other words, the plaintiff must demonstrate three things: (1)conduct by the defendant that provides basis for liability; (2)causation of harm to plaintiffs by that conduct; (3)substantial injury.

Liability depends on the sense of culpability, so the conduct must include negligent or reckless actions. The causation of proof is the link between the defendant's conduct and the harm suffered by the plaintiff, the substantial injury ("injury to plaintiffs sufficient to merit the law's attention, not a mere de minimis trifle")³⁴.

The main remedies for a tort action regarding environmental harms are damages, which can be either punitive or compensatory. Punitive damages are sometimes called exemplary damages because this has the social utility of discouraging grossly negligent behavior. However, exemplary damages requires proof of more than just mere negligence. If the duration is long, permanent or irreparable, there is also the equity and injunction, a relief that makes the plaintiff stop his wrongful act.

³³ PLATER, ABRAMS, ET AL., ENVIRONMENTAL LAW & POLICY 70 (4th ed., 2010).

³⁴ *Id.*

However, the restoration of the environment or a command and control approach aimed at avoiding the damage before it happens, especially environmental impact assessment,³⁵ were not the main goal of tort action, since the tort came only as an answer for the damage already caused and the financial compensation for those who have suffered.

2.2 Development of Environmental Law

In order to improve the remedies and correct the flaws presented by the application of common law addressing environmental problems, as the following must be considered:

- retrospective character;
- inadequacy for demands of public necessity;
- lack of broad territorial reach (environmental problems can be regional or global.);
- no purpose to avoid the damage before it occurs; and
- difficulty in addressing public interest.³⁶

Public law came as a support and a supplement, since it allowed an alternative to private or common law. This type of law is a legal structure composed of statutes and administrative regulations at all levels of the government. Authority can be delegated to administrative agencies in order to

³⁵ CERCLA is an example of the first attempt to address the avoidance of the possible risk environmental harm from hazardous substances, see MARK LATHAM, VICTOR E. SCHWARTZ, AND CHRISTOPHER E. APPEL, THE INTERSECTION OF TORT AND ENVIRONMENTAL LAW: WHERE THE TWAINS SHOULD MEET AND DEPART, 80 FORDHAM L. REV. 737 (2011). Available at: [HTTP://IR.LAWNET.FORDHAM.EDU/FLR/VOL80/ISS2/12](http://ir.lawnet.fordham.edu/flr/vol80/iss2/12)

³⁶ See STATE ENVIRONMENTAL L. § 2:2 (2012).

promote enforcement of restrictions, limitation, and mitigation of human economic activity that present a risk for the environment.

Since the 1960s and 1970s the use of regulations has broadened with the development of several approaches called taxonomy, i.e. the way that the regulation operates to avoid harm and risks.

The first type of approach used for environmental regulations was the harm based standard which aimed to prevent identified harm based on the level of exposure to toxic agents. The risk assessment establishes safe dosages and loadings.

Another approach is the technology base standard, setting performance levels for pollution control through the available technology. Also, the technology forcing, which consists on achieving the pollution control, cannot be met by any existing technology.

All these approaches are command and control policies.

2.2.1 Federal Statutes

As discussed previously, during the 1960s and 1970s an outpouring of environmental regulation occurred in the United States, mostly because a high level of public awareness of environmental issues occurred forcing the politicians to approve such measures. Additionally, in the same period of time, the country witnessed big environmental accidents that created severe damages.

There were three cases, Kepone, the Exxon oil spill, and the Atlantic Ground fisheries that have been constantly used as examples of damages and how these statutes eventually made a difference.

Kepone is the commercial name for decachloroocta-hydro-1,3,4,-metheno-2H-cyclobuta[cd]-pentalene-2-one, a synthetic chlorinated pesticide. This chemical was patented in the 1950s by Allied Chemical and introduced in 1958 as a virtually invincible compound to combat leaf-eating insects. The wastes were dumped directly into the James River, Hopewell, Virginia.

Local, state, and federal authorities overlooked safety regulations or made exceptions, which led to catastrophic results in 1975 when the workers started suffering from uncontrollable tremors and other maladies. The cause was identified as the presence of high concentration of Kepone compound in their blood.

With the Kepone tragedy, along with other similar situations such as the Exxon oil spill³⁷ (Prince William Sound, Alaska, 1989), society realized the importance of developing environmental legislation that was already in development and thus should be strengthened.³⁸ This effect was felt by Congress, politically inspiring congressmen to vote for more environmentally friendly policies and to reinforce the existing ones.³⁹

³⁷ Exxon Valdez, an oil tanker bound for, California, struck Prince William Sound's Bligh Reef and spilled 260,000 to 750,000 barrels (41,000 to 119,000 m³) of crude oil over the next few days. It is considered to be one of the most devastating human-caused . See HAZARDOUS MATERIALS RESPONSE AND ASSESSMENT DIVISION (SEPTEMBER 1992). OIL SPILL CASE HISTORIES 1967–1991, REPORT NO. HMRAD 92-11 (PDF). SEATTLE: NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION. P. 80..

³⁸ ZYGMUNT J.B. PLATER. "FACING A TIME OF COUNTER-REVOLUTION: THE KEPONE INCIDENT AND A REVIEW OF FIRST PRINCIPLES." UNIVERSITY OF RICHMOND LAW REVIEW 29, (1995): 657-713.

³⁹ WILLIAM GOLDFARB, CHANGES IN THE CLEAN WATER ACT SINCE KEPONE: WOULD THEY HAVE MADE A DIFFERENCE?, 29 U. RICH. L. REV. 603, 609 (1995).

The Kepone case in particular was essential and notorious for this understanding, because the damages were vivid and affected several groups, families and ecosystems. This became a clear example of an event that precipitated an eruption of public opinion and led to recognition of a need for a practical and powerful regulation that would effectively avoid the externalization of the costs and environmental destruction.⁴⁰

Additionally, the idea of Cooperative Federalism in the 1970's became more defined, creating the scenario for the craft of federal statutes, thereby setting a base standard for the nation, which should be followed and respected by the states as a minimum protection standard, enabling states only to strengthen these basic standards.

Nowadays, for companies to produce things such as the Kepone, several federal and state statutes standards and limits would have to be followed in order to avoid the environmental degradation and harms and to minimize risks.

The following federal statutes are commonly found in the environmental practice today:

- Clean Water Act (CWA);⁴¹
- Clean Air Act (CAA);⁴²
- Resource Conservation and Recovery Act (RCRA);⁴³
- Food, Drugs and Cosmetic Act (FDCA);⁴⁴

⁴⁰ *Id.*

⁴¹ 33 USCA § 1251 (WEST).

⁴² 42 USCA § 7401 (WEST).

⁴³ 42 USCA § 6972 (WEST).

⁴⁴ 21 USCA § 301 (WEST).

- Emergency Planning and Community Right to Know Act (EPCRA);⁴⁵
- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA);⁴⁶
- Safe Drinking Water Act (SDWA);⁴⁷
- Occupational Safety and Health Act (OSHA);⁴⁸
- Coastal Zone Management Act (CZMA);⁴⁹
- National Environmental Policy Act (NEPA);⁵⁰
- Endanger Species Act (ESA);⁵¹
- Pollution Prevention Act (PPA);⁵²
- Toxic Substances Control Act (ToSCA);⁵³ and
- Federal Insecticide Fungicide and Rodenticide Act (FIFRA).⁵⁴

The environmental statutes within the command and control point of view require conduct that also has an environmental objective, and provide a floor or a general standard of protection, which must be respected.

Thus:

“Environmental regulatory laws exist to require conduct that furthers an environmental objective. In many instances, they provide a floor by which all parties are expected to meet, or a ceiling to not exceed. These laws fill the void left by a tort system that does not address harms, to the environment or otherwise, which are not objectively unreasonable or

⁴⁵ 42 USCA § 11046 (WEST).

⁴⁶ 42 USCA § 9601 (WEST).

⁴⁷ 42 USCA § 300f (WEST).

⁴⁸ 29 USCA § 654 (WEST).

⁴⁹ 16 USCA § 1456 (WEST).

⁵⁰ 42 USCA § 4321 (WEST).

⁵¹ 16 USCA § 1539 (WEST).

⁵² 42 USCA § 13101 (WEST).

⁵³ 15 USCA § 2605 (WESTL).

⁵⁴ 7 USCA § 136 (WESTLAW).

negligently caused.”⁵⁵

2.3 Environmental Control Instruments in the Constitution

The United States Constitution is the oldest written constitution in continuous use in the world and contributed to the country’s ability to achieve a high degree of development in many aspects under the principles and ideals of this document. It allows a system of check and balances in which no part can act by itself. In other words, it enables each power to have its own voice.

It is a concern that the State acts regarding regulation of the environment may cause an effect on other states economy or its own. It is believed by some that the individual state action addressing environmental protection often fails, leading to a race to the bottom.⁵⁶ This means that the states feel pressure to become more attractive for business and industries in order to strengthen their economies. Therefore, the state governments would lower the level of environmental protection leading to a domino effect.⁵⁷

It is equally important to emphasize that the United States Constitution allows the Federal government power in a delegated way. The original power

⁵⁵ MARK LATHAM, VICTOR E. SCHWARTZ, AND CHRISTOPHER E. APPEL, THE INTERSECTION OF TORT AND ENVIRONMENTAL LAW: WHERE THE TWAINS SHOULD MEET AND DEPART, 80 FORDHAM L. REV. 737 (2011). Available at: [HTTP://IR.LAWNET.FORDHAM.EDU/FLR/VOL80/ISS2/12](http://ir.lawnet.fordham.edu/flr/vol80/iss2/12)

⁵⁶ GERALD MCALINN, DAN ROSEN, & JOHN STERN, AN INTRODUCTION TO AMERICAN LAW 212 (2D ED. 2010).

⁵⁷ See RICHARD L. REVESZ, REHABILITATING INTERSTATE COMPETITION: RETHINKING THE "RACE-TO-THE-BOTTOM" RATIONALE FOR FEDERAL ENVIRONMENTAL REGULATION, 67 N.Y.U. L. REV. 1210, 1213 (1992) “The simplest example of the **race** to the **bottom** is one in which there are two identical jurisdictions. Assume that State 1 initially sets its level of pollution reduction at the level that would be optimal if it were an island. State 2 then considers whether setting its standard at the same level is as desirable as setting it at a less stringent level. Depending on the benefits of pollution reduction, costs on polluters, and benefits from the migration of industry, the less stringent standard may be preferable, and industrial migration from State 1 to State 2 will ensue.”

belongs to the states or the people, which delegates expressly some of those powers to the Federal government, enacting federalism.

The Tenth Amendment states:

"The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people⁵⁸"

Thus, the principle was born that the United States government is a government of enumerated and limited powers.

2.3.1 Commerce Clause

One of the Federal Government powers expressed by the Constitution is the Commerce Clause, established in Article 1, section 8, clause 3:

"The Congress shall have the power to...

To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes;⁵⁹"

It delegates to the federal government the power to regulate activities that affect interstate commerce, a rationale continuously used for environmental regulations.

This clause is one of the most important constitutional instruments regarding environmental regulation because the federal administration, having jurisdiction, could enact several regulations based on this. This stems from

⁵⁸ U.S. CONST. AMEND. X .

⁵⁹ U.S. CONST. ART. VIII, § 3.

the main argument that in a unified national economy, an existence of state environmental policies could harm the economy and thus should be changed.

Until recently it was safe to say that the power of power was effectively unlimited, a fact proven during almost sixty years of precedents such as *Hodel v. Virginia Surface Mining and Reclamation Association Inc.*,⁶⁰ 452 U.S. 264 (1981), and *Hodel v. Indiana*, 452 U.S. 314 (1981),⁶¹ where the courts confirmed that it is irrelevant whether land use is properly considered a local activity, as long as Congress determines that regulation is necessary to protect interstate commerce from adverse effects.

However, the interpretation of the interstate commerce clause has had some evolution in interpretation. In *United States v. Lopez*, 514 U.S. 549 (1995),⁶² a case where the issue was whether the commerce clause authorizes Congress to enact a statute that makes it a crime to possess a gun in, or near a school, the court surprisingly created a new point of view regarding the broad powers of Congress under the commerce clause. An original understanding of the constitution was interpreted such that “federal powers are few and defined”⁶³ and thus the court struck down a federal statute prohibiting the possession of firearms in areas close to schools.

The rationale used to support this decision was that to further broaden the prerogatives of Congress to regulate activities under the power of the commerce clause was impossible. It was agreed by the Supreme Court that

⁶⁰ *HODEL V. VIRGINIA SURFACE MIN. & RECLAMATION ASS'N, INC.*, 452 U.S. 264, 101 S. CT. 2352, 69 L. ED. 2D 1 (1981).

⁶¹ *HODEL V. INDIANA*, 452 U.S. 314, 101 S. CT. 2376, 69 L. ED. 2D 40 (1981).

⁶² *UNITED STATES V. LOPEZ*, 514 U.S. 549, 115 S. CT. 1624, 131 L. ED. 2D 626 (1995).

⁶³ *Id.*

this unlimited interpretation of the commerce clause would eventually transform Congressional authority into a general police power.

This decision ended a sixty-year practice to allow regulation by Congress through the commerce clause, thereby exhibiting a limited understanding.⁶⁴

2.3.2 Fifth Amendment - Taking Clause

Another essential instrument in the U.S. Constitution used for environmental regulation is the Fifth Amendment:

"No person shall be held to answer for a capital, or otherwise infamous crime, unless on a presentment or indictment of a Grand Jury, except in cases arising in the land or naval forces, or in the Militia, when in actual service in time of War or public danger; nor shall any person be subject for the same offense to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation."⁶⁵

Of note is that this sentence contains two instruments. In the first part, the Due Process Clause states that, "No person shall be deprived of life, liberty, or property, without due process of law." This prohibits the federal government from passing any laws that do not advance legitimate state interest. And in the second part, strategically separated by a semicolon, the Taking Clause says, "nor shall private property be taken for public use, without just compensation." This generally demands that private property

⁶⁴ DIANE MCGIMSEY, THE COMMERCE CLAUSE AND FEDERALISM AFTER LOPEZ AND MORRISON: THE CASE FOR CLOSING THE JURISDICTIONAL-ELEMENT LOOPHOLE, 90 CAL. L. REV. 1675, 1677 (2002).

⁶⁵ U.S. CONST. AMEND. V.

owners that suffers this type of burden to address public use must be compensated, so in theory the owner does not suffer from government action.

Also determined by the Supreme Court:

“The Fifth Amendment was designed to bar Government from forcing some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole.”⁶⁶

2.4 Environmental Protection and Property Rights Conflicts

2.4.1 Property Rights Nature

As detailed previously, property is one of the oldest legal instruments of civilization. Property ownership allowed for economic progress and for individuals to produce wealth by working with the land, as well as leading to many other basic individual rights.

In the United States as well as in most other countries of the world, ownership is described as a fundamental right, which despite being mentioned only once in the Constitution, is vital to the whole legal system. Furthermore, this right permits the possession, use, exclusion and alienation of the land, but these actions are never absolute.

Theorists are continually arguing and discussing how tenacious private

⁶⁶ ARMSTRONG V. UNITED STATES, 364 U.S. 40, 80 S. CT. 1563, 4 L. ED. 2D 1554 (1960).

ownership is and to what degree it is limited by collective rights and public interest. Professor Humbach states that the limitation of property right can be defined and acted upon within two scopes: property freedoms and property rights.

Rights constitute:

“The legal advantage, which an owner holds as the beneficiary of legal duties imposed on others. The most important of these property rights is the rights to exclusivity, and correspondingly, the duty of others not to intrude⁶⁷”

Also, rights, once taken due to an abusive limitation by the police power or by the taking clause, are consistently reaffirmed by the Supreme Court. and therefore such takings would require just compensation.

Freedoms on the other hand, are the legal advantages of not being subject to particular behavioral constraints arising from the rights of others. Thus, the government takes away or limits the property freedom. The Supreme Court jurisprudence in this regard has never required compensation.

But, this dichotomy does not answer all the conflicts regarding this issue, since property is much more complex and has several branches such as:

“First, in standard usage, the word property refers not merely to the things which are subjects of ownership but to the legally

⁶⁷ HUMBACH, JOHN A., “CONSTITUTIONAL LIMITS ON THE POWER TO TAKE PRIVATE PROPERTY: PUBLIC PURPOSE AND PUBLIC USE”(1987). PACE LAW FACULTY PUBLICATIONS. PAPER 96, available at <http://digitalcommons.pace.edu/lawfaculty/96>.

recognized and protected ownership interest as well. Second, property interests include not merely present possessory estates, but also (without attempting to be exhaustive) future interests, incorporeal interests, powers of disposition, and liens. Certain incorporeal interests-negative easements and like servitudes-will draw our particular attention because of their similarity to land-use regulations.⁶⁸

Could a limitation of property freedom be so abusive such that a consequence would be the loss of the property rights? In other words, what are the main differences between a taking (property rights) and a land use regulation or restriction (property freedom)?

2.4.2 Distinguishing Fifth Amendment (Taking) from Land Use

The Fifth Amendment used for environmental protection is often confused with land use regulation and thus creates a significant problem, since they are different instruments with different consequences.

Land use is usually controlled by several regulations, having the goal to preserve the environment or limit pollution, an objective that reflects the police power⁶⁹, with the following functions:

- “1) constitutive functions, which shape social norms, values, and institutions;
- 2) distributive functions, which distribute power and resources; and

⁶⁸ HUMBACH, JOHN A., “WHAT IS BEHIND THE “PROPERTY RIGHTS” DEBATE? (1992). PACE LAW FACULTY PUBLICATION. PAPER 93. Available AT [HTTP://DIGITALCOMMONS.PACE.EDU/LAWFACULTY/93](http://digitalcommons.pace.edu/lawfaculty/93).

⁶⁹ The police power is inherent in a sovereign government. This power is reserved for states in the Tenth Amendment to the United States Constitution. See also *EUCLID V. AMBLER. REALTY COMPANY*, 272 U.S. 365 (1926) (holding that local governments may protect the general welfare through enactment of residential zoning ordinances).

3) protective functions, which protect certain people and things.⁷⁰

In other words, the government's power is to secure rights and restrict activities that may cause harm or represent risks to the public welfare, or simply to improve and protect it, having consequently as a side effect the limitation of property rights.

On the other hand, The Fifth Amendment implicitly includes the power of eminent domain or expropriation, which is an instrument aimed at taking property with compensation for public use. It is the clearest sort of taking and it occurs when a public authority takes, occupies, or encroaches upon private land for its own proposed use, such as to build roads, create parks, or develop other public uses.

However, it is often problematic determining when a regulatory taking for environmental protection would require compensation due to a significant burden to the owner.

This issue is now further analyzed with the relevant precedents and the applicable rules.

A) Pennsylvania Coal Co. v. Mahon

This issue of whether or not to compensate owners due to a regulatory taking for environmental issues was initially considered in 1922 with the

⁷⁰ CRAIG ANTHONY (TONY) ARNOLD, THE STRUCTURE OF THE LAND USE REGULATORY SYSTEM IN THE UNITED STATES, 22 J. LAND USE & ENVTL. L. 441, 461 (2007).

Mahon case.⁷¹ The Supreme Court had to decide what the limits were regarding the extension of a land use regulation and up to what point compensation was not necessary. The Court ruled that the regulation of private property can in some cases be too onerous that it could be regarded as taking and thus the owner should be compensated. In doing this, the Supreme Court set the basis for modern regulatory taking concept addressing the extension of land use regulation, which is:

“While property may be regulated to a certain extent, if the regulation goes too far it will be recognized as a taking”

This ruling set two principles:

- 1.) that government can regulate the use of property by land use without paying compensation (police power) confirming the point of view already established with *Mugler v. Kansas*⁷² in 1887 ; and
- 2.) that the “too far” test should be applied, which determines the line between a mere regulation over a property vs. a taking. Via this test, a judge can rule if the regulation has an excessive effect or burden on the property rights of the owner.

B) Penn Cent. Transp. Co. v. City Of New York

In 1978, the Supreme Court reevaluated this issue with in *Penn Central Transportation Co. v. City of New York*.⁷³ This case involved Grand Central terminal in New York City, owned by Penn Central Transportation,

⁷¹ *PENNSYLVANIA COAL CO. V. MAHON*, 260 U.S. 393, 43 S. CT. 158, 67 L. ED. 322 (1922).

⁷² *MUGLER V. KANSAS*, 123 U.S. 623, 8 S. CT. 273, 31 L. ED. 205 (1887).

⁷³ *PENN CENT. TRANSP. CO. V. CITY OF NEW YORK*, 438 U.S. 104, 98 S. CT. 2646, 57 L. ED. 2D 631 (1978).

and the prohibition to construct a multistory office building over the terminal, as it was protected by New York City's Landmark Preservation Law. This legislation protects historic landmarks and neighborhoods from precipitated decisions to destroy or alter their character.

The trial court granted a relief which was instantly overturned by the New York Court of Appeals, which stated: "Landmarks Law had not transferred control of the property to the city, but only restricted appellants' exploitation of it," and that landmarks law affects some owners more severely than others does not itself result in "taking" since it often the case with general welfare and zoning legislation⁷⁴.

The Supreme Court ruled, despite the fact that the plaintiff was dealing with some limitation of the air rights, it does not constitute a taking, because:

"A taking may more readily be found when the interference with property had to be characterized as a physical invasion by the government and when interference arises from some public programs adjusting the benefits and burdens of economic life to promote the common good."⁷⁵

Also,

"Owners of New York City railroad terminal, which was designated a historic landmark, could not establish a "taking" simply by showing that they had been denied the ability to exploit the superadjacent air space, irrespective of the remainder of the parcel."⁷⁶

The Court decided that the expectation of an economic gain with the air rights is not a taking because the main use of the property is not being denied and it is not totally depraving the owner of the value.

Thus, it limited this definition only for physical invasion, setting a balance

⁷⁴ *Id.*

⁷⁵ *Id.*

⁷⁶ *Id.*

test that considered:

- The character of the government's action;
- The regulation's economic effect on the landowner; and
- The regulation's interference with the landowner's reasonable investment backed expectations.⁷⁷

However, the court agreed that this ruling could not be applied to all cases without further analyses of the specific situation regarding the fairness of compensation. It is clear that a landmark law is specific to a type of limitation that will not destroy the right to use the property. Therefore dissenting votes from Justices Rehnquist and Stevens, warned for the constant problem burdening individuals in the benefit of the general welfare, therefore:

“the burden is shared relatively evenly and it is reasonable to conclude that on the whole an individual is harmed by one aspect of the zoning will be beneficated by another.”⁷⁸

And in Penn's case, the owners have suffered a significant economic loss, violating this supposed fairness, and thus could be approaching the main idea of the Fifth Amendment, a fact already analyzed in previous cases:

This “prevents the public from loading upon one individual more than his just share of the burdens of government, and says that when he surrenders to the public something more and different from that which is exacted from other members of the public, a full and just equivalent shall be returned to him.” *Monongahela Navigation Co. v. United States*, 148 U.S. 312, 325, 13 S.Ct. 622, 626, 37 L.Ed. 463 (1893).⁷⁹

⁷⁷ See MICHAEL C. BLUMM & LUCAS RITCHIE, LUCAS'S UNLIKELY LEGACY: THE RISE OF BACKGROUND PRINCIPLES AS CATEGORICAL TAKINGS DEFENSES, 29 HARV. ENVTL. L. REV. 321 (2005).

⁷⁸ *Id.*, *Supra* note 48.

⁷⁹ *Id.*

In other words, the court agreed that there is no set formula for determining whether a regulation is a taking. It is essentially an *ad hoc* factual inquiry.

C) Agins v. City of Tiburon

In *Agins v. City of Tiburon* in 1980,⁸⁰ the issue was again whether land use regulations constitute regulatory taking and were therefore a violation of the Fifth Amendment, making clear that the line between these two instruments, the taking clause and land use regulations, continued undefined. After the *Penn* case, the court tried to find a better answer by ruling that government regulation (land use) could be a taking if it does not substantially advance legitimate state interest or denies an owner economically viable use of his land, therefore creating a test. If any prong is violated, a taking occurs and compensation must be given.

Hence a new three *per se* elements test:

- permanent physical invasion;
- insufficient relationship to legitimate governmental purpose; and
- a modern formulation of the Mahon “too far test”, evaluated the regulation’s likelihood to deny to the owner economic value of his land

⁸¹.

This was done as an attempt to correct the flaws addressing fairness and

⁸⁰ *AGINS V. CITY OF TIBURON*, 447 U.S. 255, 100 S. Ct. 2138, 65 L. Ed. 2d 106 (1980) ABROGATED BY *LINGLE V. CHEVRON U.S.A. INC.*, 544 U.S. 528, 125 S. Ct. 2074, 161 L. Ed. 2d 876 (2005).

⁸¹ HUMBACH, JOHN A., “WHAT IS BEHIND THE PROPERTY RIGHTS DEBATE?” (1992). PACE LAW FACULTY PUBLICATIONS. PAPER 93, available at <http://digitalcommons.pace.edu/lawfaculty/93>

abusive burdens already established in the Penn⁸² dissenting vote.

But, this test was considered “regrettably imprecise,” since it did not analyze takings, but due process. Likewise in *Lingle v. Chevron*,⁸³ the court unanimously stated that the substantially advanced formula is not a precise test in trying to decide whether a regulation is a taking. Therefore, it does not show “the magnitude or character of the burden a particular regulation imposes upon property rights”.

Notwithstanding, the *Agins* case was surely an improvement, addressing not only physical invasion but also other factors. However the lack of a proper answer lingered.

2.4.3 Compensation for Economic Burden

After demonstrating the considerable conflict regarding land use and takings, other questions arose: Is it appropriate to compensate whenever regulatory actions affect private property rights due to harm or risk? Can a public policy claiming public interest be sufficiently strong to force deprivation of use?

These questions represent a series of issues which the Supreme Court and the rest of the jurisprudence are trying to answer.

A) Lucas Case – broadening “physical invasion”

⁸² PENN CENT. TRANSP. CO. V. CITY OF NEW YORK, 438 U.S. 104, 98 S. CT. 2646, 57 L. ED. 2D 631 (1978).

⁸³ LINGLE V. CHEVRON U.S.A. INC., 544 U.S. 528, 125 S. CT. 2074, 161 L. ED. 2D 876 (2005).

The Supreme Court's decision in *Lucas v. South Carolina Coastal Council*⁸⁴ was a particularly important case that addressed such questions. In this case, the court developed new tests and holdings that until today have unpredictable results.

In 1986, David Lucas purchased two lots located in the coastal area of Charleston County, South Carolina, planning to build family homes on each lot, and paying a total of \$975,000. However, the State of South Carolina released a Beachfront Management Act – S.C.Code Ann § 48 39 250 (sup.1990), which had the direct effect of barring construction of any permanent habitable structure in this area, since it could suffer from erosion. This act made Lucas property valueless.

Consequently, Lucas filed a lawsuit claiming that this was a regulatory taking and thus required compensation, which the trial court set at \$1 million. This amount was later denied by the State Court, which ruled that the Act actually prevented a public harm from the erosion and thus used police power to avoid nuisance.

The Supreme Court had to rule whether the South Carolina law constituted a taking on Lucas's property that required compensation. In previous decisions the court had used the "per se test" developed during the *Penn Central Case* in 1978, making it harder for petitioners to defend the necessity of compensation, as was only allowed for physical invasions, not for value deprivation.

⁸⁴ LUCAS V. S. CAROLINA COASTAL COUNCIL, 505 U.S. 1003, 112 S. CT. 2886, 120 L. ED. 2D 798 (U.S.S.C. 1992).

The Supreme Court relied upon the trial court's fact based determination that all economically beneficial or productive use of the plaintiff's land had been taken. Thus, Justice Scalia quoted Justice Brennan: "Total deprivation of beneficial use is, from the landowner's point of view, the equivalent of physical appropriation." Referring back to the Agins case, especially the part regarding economic loss instead of only physical invasion, the justices stated:

"There are two discrete categories of regulatory deprivations that are compensable under Fifth Amendment without case-specific inquiry into public interest advanced in support of restraint; the first encompasses regulations that compel property owner to suffer physical invasion of his property, and the second concerns situation in which regulation denies all economically beneficial or productive use of land.⁸⁵"

This corrected the statement in the Penn case, which only addressed physical invasions as a taking, by completing it with some aspects of the Agins case. The rationale for this was supported by questioning if the supposed harmful activity from Lucas was significant enough for a total limitation of the use of his property, creating an abusive burden. The judges debated:

"The transition from our early focus on control of "noxious" uses to our contemporary understanding of the broad realm within which government may regulate without compensation was an easy one, since the distinction between "harm-preventing" and "benefit-conferring" regulation is often in the eye of the beholder. It is quite possible, for example, to describe in *either* fashion the ecological, economic, and esthetic concerns that inspired the South Carolina Legislature in the present case. One could say that imposing a servitude on Lucas's land is necessary in order to prevent his use of it from "harming"

⁸⁵ *Id.*

South Carolina's ecological resources; or, instead, in order to achieve the “benefits” of an ecological preserve.⁸⁶”

They concluded that the state regulations regarding “nuisance or harmful activities”, for the benefit of the general welfare, can actually be abusive and oppositional to the takings clause. Therefore it is extremely hard to distinguish which regulations are in fact protecting the welfare without injuring property rights and which are being abusive by putting an unfair burden to the owner, leading to the analysis of the following definitions.

B) Nuisance Exception

The nuisance exception is a way to defend the claim of an administrative limitation caused by an environmental restriction (land use) instead of a taking based on the 5th amendment, and consequently it does not lead to compensation for the burden caused to the owner. It suggests that when a regulation is enacted to prevent harm (a fact common to most environmental statutes and regulations) in the nature of a nuisance to the public, there is no taking.

Justice Rehnquist tried to make the nuisance exception clearer to the general requirements for compensation. He analyzed which harmful uses of the land should be denied without compensation and which regulations did not aim for the general welfare but merely state interests, abusing the owner.

⁸⁶ *Id.*

Before the Lucas case, the nuisance exception was already cited in *Mugler v. Kansas*, which defined that compensation was not necessary for actions that only prohibited uses of property that would be injurious to health, morals or safety of the community. A hundred years later, with the *Keystone* case, the court made this definition even broader, as based on the *Mugler* case, such that “no individual has the right to use his property to create a nuisance or otherwise harm others.”⁸⁷

But, with *Lucas*, the broad definition brought by *Mugler* and *Keystone* came to an end, since the Supreme Court specified the necessity to distinguish between a regulation that prevents harmful use, from those that confer benefits, which is extremely difficult. It determined that the ecological and esthetic Beachfront Management Act from South Carolina could be considered both preventing harm and conferring the benefit.

Justice Scalia emphasized the importance of looking to the Second Restatement of Torts as guidance for the court, regarding nuisance.⁸⁸

“§ 822. General Rule: One is subject to liability for a private nuisance if, but only if, his conduct is a legal cause of an invasion of another's interest in the private use and enjoyment of land, and the invasion is either

(a) intentional and unreasonable, or
(b) unintentional and otherwise actionable under the rules controlling liability for negligent or reckless conduct, or for abnormally dangerous conditions or activities.

§ 824. Type Of Conduct Essential To Liability: The conduct necessary to make the actor liable for either a public or a private nuisance may consist of

(a) an act; or
(b) a failure to act under circumstances in which the actor is under a duty to take positive action to prevent or abate the

⁸⁷ *MUGLER V. KANSAS*, 123 U.S. 623, 8 S. CT. 273, 31 L. ED. 205 (1887).

⁸⁸ See MICHAEL C. BLUMM & LUCUS RITCHIE, *LUCAS'S UNLIKELY LEGACY: THE RISE OF BACKGROUND PRINCIPLES AS CATEGORICAL TAKINGS DEFENSES*, 29 HARV. ENVTL. L. REV. 321 (2005).

interference with the public interest or the invasion of the private interest.

§ 827. Gravity Of Harm: Factors Involved In determining the gravity of the harm from an intentional invasion of another's interest in the use and enjoyment of land, the following factors are important:

- (a) The extent of the harm involved;
- (b) the character of the harm involved;
- (c) the social value that the law attaches to the type of use or enjoyment invaded;
- (d) the suitability of the particular use or enjoyment invaded to the character of the locality; and
- (e) the burden on the person harmed of avoiding the harm.

⁸⁹ "

The Restatement cannot determine a background principle inquiry, but with this, Lucas established the importance of the analyses of relevant precedents. The nuisance determination had to be "objectly reasonable application of relevant precedents"⁹⁰ and according to Scalia, it would allow "some leeway in a court's interpretation of what existing state law permits"⁹¹. In addition, the legislation must not be new.

As a result, the extremely broad scope presented by earlier cases regarding the nuisance exception, i.e. no compensation, has been made more narrow with Lucas, and replaced by an inquiry which takes into account the actual motive of the legislation and its impact for the owner, a more comparative and balanced inquiry, which despite being more difficult to perform and not being an instant formula, allows the possibility of discussion and therefore ensures the protection of the environment as well as the owners.

⁸⁹ RESTATEMENT (SECOND) OF TORTS (1979) DIVISION 10. INVASIONS OF INTERESTS IN LAND OTHER THAN BY TRESPASS, CHAPTER 40. NUISANCE, TOPIC 2. PRIVATE NUISANCE: ELEMENTS OF LIABILITY.

⁹⁰ LUCAS V. S. CAROLINA COASTAL COUNCIL, 505 U.S. 1003, 112 S. CT. 2886, 120 L. ED. 2D 798 (U.S.S.C. 1992).

⁹¹ *Id.*

C) Inverse Condemnation

Inverse condemnation is a lawsuit brought by a property owner seeking compensation for land taken for public use by a government entity with eminent domain powers. Eminent domain is the taking of private land for public use with payment of compensation by a government entity. Inverse condemnation actions are usually brought when the government has limited use of private land to an extent that the value of that land is greatly reduced, or where the government has allowed the public to make use of private land.

Inverse condemnation may be a direct, physical taking of or interference with real or personal property by a public entity. For example, inverse condemnation liability has been found due to flooding, escaping sewage, interference with land stability, impairment of access, or noise from overflying aircraft.

A claim of inverse condemnation may also arise from a regulatory taking. In such cases, a government regulation is claimed to amount to a taking or damaging of property, such as overly restrictive zoning regulations, denial of building or demolition permits, and burdensome conditions placed on development.

2.5 Finding a balance?

This ruling change occurred with Lucas case, despite apparently being confusing and difficult to put in practice, much less unable to create a magic

formula to resolve all the conflicts with the same or similar issues, also has its advantages.

The understanding adopted by the Supreme Court was a new point of view that the property rights and the individual should be somehow managed more carefully by the authorities regarding environmental legislation and rule making. This position is also included in the takings clause, which not only enables taking of a property for public use, but also ensures that this procedure does not harm, in an abusive or unfair way, an individual and his property. It ensures that the burdens of environmental protection, which surely exist, should be divided within the society as a whole, a fairness factor made possible by a analysis of each case individually rather than applying a general preset formula. This was true for situations such as Lucas case which was determined to be a “relatively rare situation where the government has deprived a land owner of all economic beneficial uses”⁹²

To conclude, by implementing course of action that does not have a preplanned outcome, but rather takes a case specific approach, the environment, the owner and the property could be protected. Also, because the outcome is derived from common law itself, with its flexibility, as demonstrated, remedies can be provided in a manner which does not correct the problem or harm completely, which has been shown to have its difficulties as well. Rather, as a supplement for the Statutes and enhancing them⁹³,

⁹² SEE DANA BEACH & KIM DIANA CONNOLLY, A RETROSPECTIVE ON LUCAS V. SOUTH CAROLINA COASTAL COUNCIL: PUBLIC POLICY IMPLICATIONS FOR THE 21ST CENTURY, 12 SOUTHEASTERN ENVTL. L.J. 1, 8 (2003).

⁹³ 9 N.Y.PRAC., ENVIRONMENTAL LAW AND REGULATION IN NEW YORK § 1:1 (2D ED.).

“common law may ultimately provide the best mechanism for striking balance between the need for economic activity and for individual justice⁹⁴”

⁹⁴ MICHAEL D. AXLINE, THE LIMITS OF STATUTORY LAW AND THE WISDOM OF COMMON LAW, 38 ENVTL. L. REP. NEWS & ANALYSIS 10268, 10276 (2008).

Environmental Protection in Brazil and Property Limitations

3.1 Origins in the Civil Law

The civil Law tradition is based mostly on written or codified laws, a legacy of the Roman Empire's Codes of Theodosius and Justinian. The main idea is that all law flows from a coherent set of legal principles contained in a written code provided or enacted by the sovereign power. The codes distinguish between different categories of law: substantive law establishes which acts are subject to criminal or civil prosecution, procedural law establishes how to determine whether a particular action constitutes a criminal act, and penal law establishes the appropriate penalty.

The theoretical foundation of Civil Law systems is that the principles of neutrality, consistency and predictability of the Law are most effectively implemented by codification and legislation rather by the discretionary power of the judiciary. Therefore, courts interpret the code and legislation but decisions of judges are not law. Consequently, the principle of *stare decisis* does not exist and courts are not bound to apply precedents contained in prior case law.

However, as a practical matter, the prior case law has significant persuasive value, especially the decisions of the higher appellate courts, which in Brazil can even become binding and are called "Súmula Vinculante." But these are not actual precedents and are provided in the format of a norm.

However, in general, Civil Law tradition is considerably less flexible and more predictable than Common Law

Brazil adopted the Civil Law system, since it was a Portuguese colony, and initially used the Manuelinas and Felipinas ordinances, which helped to control the extraction of brazilwood used to dye clothes a reddish color, the most important raw material and export from the colony. This was an economic activity performed through the Feitorias buildings, a mixture of trading stations with fortresses, by Portuguese and natives, called "brazilers" at that time.

The brazilwood and the environment were so extensively exploited that theses ordinances also addressed the "protection" of this natural asset with monetary penalty or whipping for harmful and unreasonable acts regarding the environment. Eventually, the Portuguese ordinances remained the main applicable written Law in Brazil until the first Civil Code of 1916 was enacted.⁹⁵ As a consequence of this heritage, Brazil's legal system is centered on a hierarchy of statutes and Laws.

It is worth noting that initially, in the colonial period and with Portuguese Law heritage, the Civil Law tradition was purely Roman. But with the achievement of independence, especially with the Republic proclamation, scholars and the legislative branch of government also started to use the German Civil Law tradition, being strongly inspired by Hans Kelsen,⁹⁶ and his

⁹⁵ See ARLINDO DAIBERT, HISTORICAL VIEWS ON ENVIRONMENT AND ENVIRONMENTAL LAW IN BRAZIL, 40 GEO. WASH. INT'L L. REV. 779, 803 (2009).

⁹⁶ See KELSEN, HANS, 1881-1973. TEORIA PURA DO DIREITO / HANS KELSEN ; [TRADUÇÃO JOÃO BAPTISTA MACHADO]. 6ª ED. - SÃO PAULO : MARTINS FONTES, 1998. - (ENSINO SUPERIOR).

work on the hierarchy of Laws and their compliance with the Federal Constitution.

Currently the Civil Law tradition adopted in Brazil is a hybrid of Roman and German Civil Law tradition.

3.2 Environmental Law Evolution

Due to its massive natural assets, Brazil always has had a concern with environmental protection. However, past instruments created to address this problem, as described earlier, did not have as a goal protection itself, nor did it hold that nature was a collective or common good. However, such measures were designed to support the economy by preserving its biggest "engine", since Brazil has always been a raw material exporter and is dependent on natural resources exploitation.

Over time, the Brazilian Legal system created a vast range of instruments from the most general to the most specific, as demonstrated below. Importantly, the idea for the purpose of preservation changed from preserving the economic engine as a raw material to actually accepting that preserving the environment is a right of all people. This new understanding was officially introduced in the 1988 Constitution, which is currently still in force.

3.2.1 The Constitution and Environment as a Diffuse Right

The Federal Constitution of 1988 was the first Constitution, not only in Brazil, but in the world, to clearly state the expression "environment". It

certainly was the most important improvement in legislation addressing the protection of nature, not only for economic reasons, but as a fundamental right. It eventually complemented other legal instruments, as seen in the following citation of the unique article 225 of the Constitution of 1988:

“All have the right to an environment that is ecologically in equilibrium and that is available for shared use by the people, essential to a healthy quality of life, which imposes on both the government and society as a whole the duty of protecting it and preserving it for both the present and future generations.⁹⁷”

The term “all” used in the text made the environment a diffuse right. In other words, it is a type of good which belongs to all, avoiding any kind of exclusion or being directed at a specific person, an undetermined collectivity. Another important point is the anthropologic character of the article, defending the environment as a right of every person in order to preserve their dignity and fundamental liberties.

The Brazilian Supreme Court (Supremo Tribunal Federal –STF) through one vote from Justice Celso de Mello, stated the right to a balanced environment as “typical third-generation right, which is undetermined to all humans, a situation that creates an special obligation for the State and society to preserve and protect it”⁹⁸

⁹⁷ CONSTITUIÇÃO FEDERAL [CF] [CONSTITUTION] OCT. 05,1988, ART. 225 (BRAZ.) (OFFICIAL SENATE TRANSLATION).

⁹⁸ Translated by the author “como típico direito de Terceira geração que assiste, de modo subjetivamente indeterminado, a todo gênero humano, circunstancia essa que justifica a especial obrigação - que incube o estado e a própria coletividade de defende-lo e de preserva-lo em beneficio das presentes e futuras gerações” from MS 22.164-0-SP, J 30.10.1995,DJU 17.11.1995. V. JOSÉ ADÉRCIO SAMPAIO, A CONSTITUIÇÃO REINVENTADA PELA JURISDIÇÃO CONSTITUCIONAL, BELO HORIZONTE, DEL REY, 2002, P. 701.

It is important to point out that a diffuse right does not transfer the possession of the good/environment to the State as the owner, but makes the State a manager, which is why it has the obligation to inform and explain its actions to the society, according to principles derived from Administrative Law.

3.2.2 Relevant Environmental Statutes

Several environmental Laws and Statutes in Brazil were enacted before the Democratic Constitution of 1988, which weren't any less important. On the contrary, the Statutes began to legally speak to the concern for the environment in Brazil. These were later confirmed by the Constitution.

Among all environmental laws and regulations the most important ones, especially those addressing property rights limitation are:

A) Forest Codes from 1965 (Law nº4771/1965) and 2012 (Law nº12.651/2012)⁹⁹

In 1965, the Forest Code was enacted, which had as a main goal the regulation of farmers' activities regarding suppression of native forests and to what point property could be used for an economic activity.

This Code presented two main instruments: the Permanent Preservation Area (Área de Preservação-APP Permanente) and the Legal Reserve (Reserva Legal-RL)¹⁰⁰.

- Permanent Preservation Area (APP)¹⁰¹: The APP has the main objective of protecting water bodies and their sustainability by

⁹⁹ LEI Nº 4.771/1965 and LEI Nº 12.651/2012(BR.).

¹⁰⁰ It is important to emphasize that the Forest Code in 2001 was amended adding the notion of proper rem obligation, in other words, the obligations and demands requested by this law follow the property regardless of its owner. It passes from owner to owner making the present one liable for past actions, even if the present one did not damage the environment. – LEI Nº 4.771/1965, ART. 14 .

preserving the surrounding vegetation and avoiding the draft or destruction of this habitat. It is also applicable for areas with hills and mountains to avoid erosion. Therefore the APP has a safety and damage control function¹⁰².

According to the law, the APP can be (i) legally enacted, in which case the situations that are protected and stated by law are specific; and/or it can be an (ii) administrative APP created by the public power as an administrative act and is discretionary

It is essential to emphasize that the APP, regardless of its burden to the owner, does not generate compensation.

- Legal Reserve (RL): The RL is different from the APP in that it has the goal of preserving the native flora, stopping the owner from completely suppressing the native vegetation of his property. It is worth mentioning that the RL only exists in rural property, while the APP can occur in both urban and rural settings. The area percentage of protection applied for the RL varies according to the region of the country, extending from 20% to 80% of the property.

The code of 1965 as expressed in the Law nº4771/1965 was recently replaced by the controversial new forest code, Law nº12.651/2012, which was passed in Congress with several executive vetoes and some conflicts

¹⁰¹LEI Nº 12.651/2012, ART. 2 AND 3(BR.).

¹⁰²PAULO AFFONSO LEME MACHADO "DIREITO AMBIENTAL BRASILEIRO" 18 EDIÇÃO, EDITORA MALHEIROS, 2010, SÃO PAULO, P 77.

regarding certain instruments, which surely will eventually be debated as issues by the judicial branch.

However, in the forest code of 1965, the two instruments of APP and RL were enumerated separately. Therefore, the burden could be more than 80% of the property. Currently, since the enactment of the new forest code, the rule of thumb is that these two instruments be counted together as stated in article 15, and it is considered a benefit that could be used by the owner to avoid abusive burdens for the property's production capacity.

These facts are relevant for further analysis concerning the possibility of compensation for environmental limitation and takings compensation.

B) National Environmental Policy Act (Política Nacional do Meio Ambiente – PNMA)¹⁰³

The National Environmental Policy Act (PNMA) creates a system, which addresses environmental protection as a whole, describing procedure and liability for acts, as well as defining and establishing concepts such as pollution, habitat and nature. The most important instruments created by this law are (i) the environmental permitting system addressing all activities which can represent a threat or a damage to the environment, an instrument also regulated and better defined by the Resolution of the Conselho Nacional do Meio Ambiente - CONAMA¹⁰⁴ 237, and (ii) the Sistema Nacional do Meio

¹⁰³LEI Nº6.938/1981 (BR.)

¹⁰⁴CONAMA is a consultant agency for environmental issues and governmental policies, with the purpose of defining standards, in order to keep a balanced and healthy environment. See LEI Nº6.938/1981, ART. 6, II(BR.).

Ambiente - SISNAMA¹⁰⁵, which created the agencies and their respective jurisdictions to enforce environmental regulations and permits.

It is worth noting that despite being very similar to American NEPA (National Environmental Policy Act), sharing the use of environmental impact assessments and the dissemination of information regarding the impacts of economic activities; the PNMA has a broader scope, as it addresses all economic activities, not only the actions of federal agencies as NEPA does..

C) Environmental Crimes Law (Lei de Crimes Ambientais)¹⁰⁶

Law nº 9.605/98, which addresses environmental crimes, was enacted in 1998 with its main goal to define crimes directly injuring the environment (flora, fauna and pollution), both in the criminal and administrative levels, along with its respective sanctions and penalties which should be applied.

D) Conservation Units System (Sistema de Unidades de Conservação-SNUC)¹⁰⁷

Law nº 9.985/2000 enacted a system of protected areas/units, which would create a mosaic of units with different objectives and purposes to better protect forests and native vegetation and, consequently, its respective fauna.

The Law divides the system into two big groups of units:

- Total Protection¹⁰⁸ (Proteção Integral): This group is composed of 5 types of units with differing approaches to preservation: Estação

¹⁰⁵ The SISNAMA was enacted by the Law nº6.938/1981, article 6, it is the system by which the environmental agencies and its hierarchy is organized.

¹⁰⁶ LEI Nº9.605/1998 (BRAZ.).

¹⁰⁷ LEI Nº9.985/2000 (BRAZ.).

¹⁰⁸ *Id.*, at ART. 7, I, §1º.

Ecológica, Reserva Biológica, Parque Nacional, Monumento Natural and Refugio da Vida Silvestre. However all units of total protection share the same purpose, to preserve nature, authorizing only the indirect use of its resources and allowing nothing more than scientific studies and extremely controlled acts.

- Sustainable Use¹⁰⁹ (Uso Sustentável): This group is composed of 7 categories, which are Área de Proteção Ambiental, Área de Relevante Interesse Ecológico, Floresta Nacional, Reserva Extrativista, Reserva de Fauna, Reserva de Desenvolvimento Sustentável, Reserva Particular do Patrimônio Natural. The main common purpose of these units is to sync conservation and preservation with the management and use of the land in a sustainable way.

It must be noted that these instruments and legal concepts are used constantly in cases of environmental protection, thereby limiting property rights. These cases and issues will be further discussed in this research.

3.4 Property rights

Currently, private property is strongly affirmed in the Federal Constitution as a fundamental and unalienable right in article 5, a direct result of the concept of generation of wealth as John Locke and so many other authors of note during history and the revolutions from the 18th century. However, private property in Brazil had an interesting history and a quite different origin and concept in colonial times.

¹⁰⁹ *Id.*, at ART 7, II, §2º.

Initially, when the first Portuguese settlers arrived on Brazilian shores, the Crown had a very specific plan of what to do with the new territory, which mainly consisted of the exploitation of all valuable natural resources from brazilwood to valuable minerals such as gold and silver. This ideology already had been put in practice by the Spanish Crown in the Spanish territories in the New World. Therefore, the destruction of the primary native tribes living in the area, as well the exploration for possible economic activities, were essential.

Consequently, the Royal government created a system called "Sesmarias" which consisted of the creation of well-defined areas for exploration, which would be divided among other royals or influential subjects close to the Crown, who would manage these areas.

However, the "Sesmarias" system only allowed the right to use the land, not the right to own it.¹¹⁰ In addition, in the case of no exploration of the lot or if the results did not reach the expectations, the Crown could take away this right, based on a Law from 1375, that demanded a mandatory performance of an economic activity by the person who had received land from the Crown. This meant that the idea of private property and ownership was not solid through most of the colonial period.

After achieving independence in 1822, with the new government formed mostly by the former Portuguese royal family, the legal institutions remained the same, including the Felipinas ordinances, which had been used for a long time. But in 1850, Law 601, called Lei de Terras, organized this

¹¹⁰ See ALEXANDRE DOS SANTOS CUNHA, THE SOCIAL FUNCTION OF PROPERTY IN BRAZILIAN LAW, 80 FORDHAM L. REV. 1171 (2011). Available at: [HTTP://IR.LAWNET.FORDHAM.EDU/FLR/VOL80/ISS3/7](http://ir.lawnet.fordham.edu/flr/vol80/iss3/7).

confused separation between State and private by giving the complete ownership of this big properties to its respective pseudo owners.

With the Civil Code of 1916, the first code from the Republican period, the institution of private property was finally established as a fundamental right, a direct effect of the Enlightenment and the Positivism movement coming from Europe, especially the Napoleonic Civil code, which gave property and absolute conception.

Later on, with the Constitution of 1934, the idea of limiting property rights through social interests returned again, aiming this time for general welfare, as at this moment in time, Brazil was under the administration of Getúlio Vargas¹¹¹, who imposed a stronger, more centralized government, making individual rights a secondary concern.

Currently, with the Constitution of 1988, private property is a core of the Brazilian legal system and granted as an inalienable right, as defined on the article 5, *in verbis*

"Article 5

All persons are equal before the law, without any distinction whatsoever, Brazilians and foreigners residing in the country being ensured of inviolability of the right to life, to liberty, to equality, to security and to property, on the following terms:
XXII - the right of property is guaranteed¹¹²;

¹¹¹ This period is known as the Era Vargas (1930-1945), which despite being regarded as a dictatorship, it was extremely important for Brazil, since it was at that time the industrialization of the country actually began and also the achievement of essential rights such as labor laws, creation of unions, women vote, creation of PETROBRAS, and CSN, the current VALE company and finally the universal secret vote.

¹¹² CONSTITUIÇÃO FEDERAL [CF] [CONSTITUTION] OCT. 05, 1988, ART. 5, XXII (BRAZ.) (OFFICIAL SENATE TRANSLATION).

As with other main western countries, this right, despite being highly protected by Law, is not absolute; it has several limitations in order to preserve the general welfare, especially in relation to environmental protection. The analysis of these limitations is presented as follows.

3.5 Property Limitation and burden

As previously explained and similar to American Law, the concept of property in Brazil is not absolute. In other words, it can suffer limitations justified by the common good and general welfare.

In Brazil, the state can enact limitations via two methods:

- 1- Legislative Branch: The legislative branch can limit property rights with the creation of laws and statutes as provided by the Constitution in article 24 as concurrent competence. In other words, the Federal level sets the base standard of environmental protection and the states and municipal¹¹³ levels can follow it or increase the protection standard:

“Article 24

It is incumbent upon the Union, the States, and the Federal District to legislate concurrently on:

VI. forests, hunting, fishing, fauna, reservation of nature, defense of the soil and natural resources, protection of the environment, and pollution control;”¹¹⁴

- 2- Administrative/Judiciary Branches: The police power required to enforce the laws and statutes and to monitor compliance, which in

¹¹³ In Brazil, the Constitution only states the municipal level on the article 30, therefore, the article 24 of concurrent competence must be interpreted with the article 30 in order for the municipal level to enact its own environmental statutes.

¹¹⁴ CONSTITUIÇÃO FEDERAL [CF] [CONSTITUTION] OCT. 05, 1988, ART. 24 (BRAZ.) (OFFICIAL SENATE TRANSLATION).

Brazil is a common competency of all levels of government, is provided by article 23 of the Constitution.

“Article 23

It is incumbent, in common, upon the Union, the States, the Federal District, and the Municipalities:

VI. to protect the environment and fight pollution in any of its forms;

VII. to preserve the forests, fauna, and flora;”¹¹⁵

The common competency to protect and preserve the environment is accomplished by several instruments such as police power and others derived from it.

3.5.1 Police Power

Police power was first created for security purposes and to ensure public safety. However, this instrument eventually was broadened to secure economic and social order as well. Therefore, the modern concept of the police power is to limit the use of individual rights in order to ensure the public interest.

Professor Celso Antônio Bandeira de Mello defends that the police power is an obligation of NOT DOING something, a negative request through which the public power does not allow specific acts from private owners. This happens either by an administrative branch being preventive by using administrative measures, or by the judiciary in a repressive character using criminal remedies.

¹¹⁵ *Id.*, at ART. 23.

Professor Álvaro Lazzarini maintains that the main difference between the administrative and judiciary approaches of police power is whether a criminal action has happened or not¹¹⁶.

Despite having an administrative or judiciary approach, this power is comprised of three basic common characteristics¹¹⁷:

- Enforcement
- Discretion
- Coercion

Nonetheless, even as a discretionary instrument, it has to obey the limitations stated within the Law's reasons and objectives. Several scholars claim that these boundaries have as a main purpose to avoid an abusive injury of individual rights and therefore, the acts based on the police power must have:

- Necessity (it should be only used in order to protect public interest)
- Proportionality (the limitation of the individual right must be done with parsimony)
- Effectiveness (the action must be appropriate in order to avoid the damage of the public interest)¹¹⁸

These boundaries are stated in Federal Law 5.172/1966 (Tax Code), article 78¹¹⁹, emphasizing the proportionality when limiting the individual rights

¹¹⁶ See ÁLVARO LAZZARINI RJTJ-SP, v. 98:20-25.

¹¹⁷ MARIA SYLVIA ZANELLA DI PIETRO DIREITO ADMINISTRATIVO 21 EDIÇÃO EDITOR ATLAS 2008, P 110.

¹¹⁸ *Id.*

¹¹⁹ CTN Lei 5.172/1966 Art. 78. "Considera-se poder de polícia atividade da administração pública que, limitando ou disciplinando direito, interesse ou liberdade, regula a prática de ato

in order to protect the general welfare, which must be done with parsimony within the Law,¹²⁰ but abusive action can eventually happen in the enforcement of this instrument.

3.5.2 Social Function of Property

The social function, a complex instrument that exists within Brazilian Law, is derived directly from other Civil Law countries (especially France) and it does not have any equivalent instrument in the Common Law system countries.

The social function of property is stated in article 5, XXIII of the Constitution with the following content:

"Article 5.

All persons are equal before the law, without any distinction whatsoever, Brazilians and foreigners residing in the country being ensured of inviolability of the right to life, to liberty, to equality, to security and to property, on the following terms:
XXIII property shall observe its social function;¹²¹"

In addition, article 170 of the Constitution as seen below, is the essence of sustainable development in the Constitution. It defends free economy and private property while the environment and the general welfare are protected¹²² through social function.

ou abstenção de fato, em razão de interesse público concernente à segurança, à higiene, à ordem, aos costumes, à disciplina da produção e do mercado, ao exercício de atividades econômicas dependentes de concessão ou autorização do Poder Público, à tranquilidade pública ou ao respeito à propriedade e aos direitos individuais ou coletivos. (Redação dada pelo Ato Complementar nº 31, de 28.12.1966) Parágrafo único. Considera-se regular o exercício do poder de polícia quando desempenhado pelo órgão competente nos limites da lei aplicável, com observância do processo legal e, tratando-se de atividade que a lei tenha como discricionária, sem abuso ou desvio de poder."

¹²⁰ ÁLVARO LAZZARINI ESTUDOS DE DIREITO ADMINISTRATIVO 2ª EDIÇÃO EDITOR REVISTA DOS TRIBUNAIS 1999, P 293.

¹²¹ CONSTITUIÇÃO FEDERAL [CF] [CONSTITUTION] OCT. 05, 1988, ART. 5 (BRAZ.) (OFFICIAL SENATE TRANSLATION).

¹²² In the article 170 of the Constitution, there are the three pillars of the sustainable development – economic growth, environmental protection and social justice – it is a connection link between the individual rights stated in the article 5 with the diffuse right of the 225.

"Article 170

The economic order, founded on the appreciation of human work and on free enterprise, is intended to ensure everyone a life with dignity, according to the dictates of social justice, with due regard for the following principles:

- I. national sovereignty;
- II. private property;
- III. the social function of property;
- IV. free competition;
- V. defense of the consumer;
- VI. defense of the environment;
- VII. reduction of regional and social differences;
- VIII. achievement of full employment;
- IX. preferential treatment for small enterprises organized under Brazilian laws and having their head-office and management in Brazil.¹²³

This instrument of social function is much more than a limitation or the obligation of NOT DOING; it's something bound to the land and to property right itself. It demands from the owner a positive approach to the use of property, an external limitation on property rights imposed by statutory law. In other words, the private owner is imposed with the obligation of proper use, purpose and finality to his land.

In this sense, the scholar Clovis Bevilacqua¹²⁴ defended that property rights must be "subjected to restrictions determined by considerations of social order"¹²⁵

¹²³ CONSTITUIÇÃO FEDERAL [CF] [CONSTITUTION] OCT. 05, 1988, ART. 170 (BRAZ.) (OFFICIAL SENATE TRANSLATION).

¹²⁴ Translated by the author "A lei assegura ao proprietário, dentro dos limites por ela traçados, o direito de utilizar-se de seus bens, como entender e de reivindicá-los, quando corpóreos, do poder de quem, injustamente, os possui." from CLOVIS BEVILAQUA, DIREITO DAS COISAS P 134 (1941).

¹²⁵ See ALEXANDRE DOS SANTOS CUNHA, THE SOCIAL FUNCTION OF PROPERTY IN BRAZILIAN LAW, 80 FORDHAM L. REV. 1171 (2011). AVAILABLE AT: [HTTP://IR.LAWNET.FORDHAM.EDU/FLR/VOL80/ISS3/7](http://ir.lawnet.fordham.edu/flr/vol80/iss3/7).

Until the Military Constitution of 1967, the social function was more a principle than an effective instrument. After this normative piece of law, social function appeared in the Brazilian Legal system and is still currently used in the country.

Furthermore, the second Civil Code of 2002, in article 1228, also defined the social function as a supplement to the Constitution, clearly imposing a duty of solidarity upon the owner, in the following:

"Article 1228

The right of property must be exercised in accordance with its economic, social and environmental ends, so that the flora, fauna and natural beauties are preserved, as well as the ecological equilibrium and the historical and artistic patrimonies, and so that air and water pollution are averted, in obedience of the rules established by specific legislation¹²⁶"

All these facts reflect the viewpoint that property use is not absolute as previously understood. There must be a concern and respect for the general welfare and consequently for the environment, because it is a diffuse right.

The Constitution of 1988, kept the social function of property already specified in the Constitution of 1967, although it made the concept clearer, especially regarding the expropriation of the owner in case of no fulfillment of the requirement, *in verbis*:

"Article 186

The social function is performed when rural property simultaneously meets, according to the criteria and standards prescribed in the law, the following requirements:
I. rational and adequate use;
II. adequate use of available natural resources and preservation of the environment;
III. compliance with the provisions which regulate labor relations;

¹²⁶ CÓDIGO CIVIL [CC] ART.1228 (BRAZ.).

IV. exploitation which favors the well-being of the owner and workers.¹²⁷"

And its exceptions and limitations such as:

"Article 185

The following shall not be subject to expropriation for agrarian reform purposes:

I. small and medium sized rural property, as defined in the law, provided its owner does not own other property;

II. productive property.

(1) The law ensures special treatment for productive property and establishes rules for the fulfillment of the requirements for its social function.¹²⁸"

The expropriation through social function of property is possible in the Brazilian Legal system, however this is for specific cases (having certain exceptions) and it is not well defined by judicial decisions.

Another important issue was already discussed by the Supreme Court (STF), and that is whether the social function of property is an element of the property right itself or a characteristic of the actual land belonging to its specific owner.

This problem was explicit in cases where rural property was held in a condominium (only one property right exercised by several owners) and as the owners shared the rights associated with the property they must also conform with the social function. This would have different outcomes if analyzed as one single general right versus analyzing it split among each specific owner, becoming several small properties and thus being unaffected by the expropriation of social function (article 185 – limits for rural reform).

¹²⁷ CONSTITUIÇÃO FEDERAL [CF] [CONSTITUTION] OCT. 05, 1988, ART. 186 (BR.) (OFFICIAL SENATE TRANSLATION).

¹²⁸ *Id.*, at ART. 185 (BRAZ.) (OFFICIAL SENATE TRANSLATION).

In cases such as *Estácio de Souza Leão Filho v. Presidente da República*, the Supreme Court¹²⁹ eventually ruled by majority that the social function derives from the land and consequently, property rights are connected to this land, and are not the individual rights of each owner regarding his parcel of the land. The rationale used was that the land is the object of the social function, since it must be productive and respect the interest of the general welfare.

Therefore, the social function became an essential instrument, which is not a mere limitation but an obligation that the land must be used with a positive purpose respecting the common good as well as striving for the preservation of the environment and sustainability of the activities.

Thus, from Professor Pilati:

"Social function is acknowledging that the economic rational is not absolute, nor is productivity by itself, but to satisfy the oldest right of men, which is to protect human kind and the perpetuity of civilization."¹³⁰

3.5.3 Types of Administrative Limitations and Takings

Apart from social function, the legal system also provides other types of limitations to property rights based on the police power performed by the State in order to protect the common good.

¹²⁹ *ESTÁCIO DE SOUZA LEÃO FILHO V. PRESIDENTE DA REPÚBLICA*, S.T.F., MANDADO DE SEGURANÇA NO. 24.573, RELATOR: MIN. EROS GRAU, 12.06.2006, 2260, SUPREMO TRIBUNAL FEDERAL JURISPRUDÊNCIA ELECTRÔNICO [S.T.F.J.E.], 15.12.2006, 160, 162–64 (BRAZ.).

¹³⁰ Translated by the author: "Função social implica admitir que a racionalidade econômica não seja absoluta, nem a produtividade por si só baste par satisfazer os designios primordiais do Direito, que é proteger a espécie humana e a perpetuidade da civilização." from PILATI, JOSÉ ISAAC. *PROPRIEDADE E FUNÇÃO SOCIAL NA PÓS-MODERNIDADE*. RIO DE JANEIRO: LUMEN JURIS, 2011, p. 74.

These other limitations come from the administrative branch of government and can be defined as general approaches which often do not have compensation,¹³¹ since it is a positive obligation to align the use of property with the general welfare, a natural and common burden to all which basically consists of “*non facere, facere e pati*” obligations (do not do, do and endure)

These administrative limitations consist of two main approaches:

A) Restrictive Intervention (Intervenção Restritiva):

These limitations address property use without transferring the ownership to the public power.

I – Temporary Occupation (Ocupação temporária)¹³²

Defined as the temporary occupation of private property by the State, with or without compensation, this limitation is based on the public interest. Usually it occurs in specific instances when the government requires a specific area for a specific time, e.g. during certain construction projects, or during elections when schools are needed.

Compensation will only occur if the property is damaged during the performance of these activities.

II- Administrative Request (Requisição Administrativa)

Article 5, XXV of the Constitution says:

¹³¹ No compensation is the general rule, since it is a common obligation. The exception is if this limitation occurs with an error, mistake or unlawfully.

¹³² See MARIA SYLVIA ZANELLA DI PIETRO DIREITO ADMINISTRATIVO 21ª EDIÇÃO EDITOR ATLAS 2008, P. 126.

“In case of imminent public danger, the competent authority may make use of private property, provided that, in case of damage, subsequent compensation is ensured to the owner;”¹³³

Contrary to the "ocupação temporária", this instrument is appropriate for situations in which there is imminent danger or potential for injury. The targeted asset may not be only real estate, but also things and services. These takings do not need a judicial decision, only an administrative act.

In addition, compensation can only occur if the damage to the property or service occurs during the act of the public power, not for the time spent under its authority.

III- Landmark Act (Tombamento)¹³⁴

This instrument is used to preserve landmarks such as buildings and sites that have a historical, cultural, scientific or artistic value, and was enacted by Law 25/1937.

This requires an administrative process issued by the governmental agency with jurisdiction (Federal, State or Local level) to ensure the protection of the building or site, from the beginning of the administrative process until its final decision, prohibiting any kind of modification or destruction.

After the finalization of the process, the area or good is obligated to esthetically preserve the property. This could apply to the exterior, interior or

¹³³ CONSTITUIÇÃO FEDERAL [CF] [CONSTITUTION] OCT. 05, 1988, ART. 5 (BRAZ.) (OFFICIAL SENATE TRANSLATION).

¹³⁴ MARIA SYLVIA ZANELLA DI PIETRO DIREITO ADMINISTRATIVO 21ª EDIÇÃO EDITOR ATLAS 2008, P. 127.

both. Because this instrument does not take the ownership from the citizen, but only demands certain restrictions, it does not have compensation.

The Tombamento is an instrument which can be mandatory or optional. In other words, not only the public authority can demand this obligation in order to preserve the historical value, but also the owner, if appropriate and willing, can request this from the government.

IV- Serfdom (Servidão)¹³⁵

Serfdom is defined as a burden imposed by the government to the private owner in order to ensure the conservation and/or construction of public buildings, or services through compensation, due to damages suffered by the owner.

The most common example of this type of limitation is the necessity of the government to use a specific area of the private property to pass an electric grid.

V- Administrative Limitation (Limitação Administrativa)¹³⁶

This type of intervention/ limitation of the use of private property, is the most used and is the most important instrument regarding environmental legislation and statutes, since it is a general and unilateral request of the public power to restrict the use of the property and its related activities, in order to protect the common good, in this case, the environment

¹³⁵*Id.*, at . 138.

¹³⁶*Id.*, at page 121.

As stated in the Forest Code and the SNUC Law, environmentally protected areas may be created within private property, after which the owner cannot use or explore the property financially.

Also, article 225, III, and paragraph 4 grant power to the government to establish areas of environmental protection and limitations for property use.

"III- define, in all units of the Federation, territorial spaces and their components which are to receive special protection. any alterations and suppressions being allowed only by means of law, and any use which may harm the integrity of the attributes which justify their protection being forbidden¹³⁷:"

§ 4 - The Brazilian Amazonian Forest, the Atlantic Forest, the Serra do Mar, the Pantanal Mato-Grossense and the coastal zone are part of the national patrimony, and they shall be used, as provided by law, under conditions which ensure the preservation of the environment, therein included the use of mineral resources.¹³⁸"

Based on this, Professor Hely Lopes Meirelles states that the administrative limitation is a general imposition and a unilateral action of the public power that addresses the sustainable use of property and environmental protection without being an expropriation, since it does not transfer the possession of the property to the public power.¹³⁹

He says:

"It is a way in which the State, claiming its domestic sovereignty, can interfere with someone's property and its activities, representing a scope of the State supremacy over people and things existing in its territory; it derives from the

¹³⁷CONSTITUIÇÃO FEDERAL [CF] [CONSTITUTION]OCT. 05,1988, ART. 225, III (BRAZ.) (OFFICIAL SENATE TRANSLATION).

¹³⁸*Id.*, ART. 225, §4º(BRAZ.) (OFFICIAL SENATE TRANSLATION).

¹³⁹ HELY LOPES MEIRELLES DIREITO ADMINISTRATIVO BRASILEIRO, 16ª. ED., P. 529.

mandatory obligation of property and individual activities to adapt and respect the general welfare.

It is every general, unilateral, public act, free of compensation, which imposes limits to property use regarding general welfare and diffuse rights protection, without denying its natural use.

The administrative limitation differs from the administrative servitude as well from takings, since it is a general restriction and of public interest and it does not obligate the public power to compensate. An example of this limitation might be the taking of a number of meters of restrictions for a construction, prohibitions of suppression of vegetation etc...

However, if these prohibitions become greater or acquire an abusive character claiming the majority of the property extension, it loses the essence of a limitations and becomes an invasion and prohibition of the right to use, making the public power compensate this restriction for heavily diminishing the economic value of property, as no one would acquire land if its capacity of construction or use is denied completely and therefore not economically valuable.

If the government takes the economic value it must compensate this damage and burden imposed to the owner, a rule derived from the social solidarity principle, affirming that a burden is only legitimate if bared for all in favor of all¹⁴⁰

¹⁴⁰Translated by the author:: "a limitação administrativa é uma das formas pelas quais o Estado, no uso de sua soberania interna, intervém na propriedade e nas atividades particulares (...) representa modalidade de expressão da supremacia geral que o Estado exerce sobre pessoas e coisas existentes no seu território, decorrendo do condicionamento da propriedade privada e das atividades individuais ao bem-estar da comunidade (...) é toda imposição geral, gratuita, unilateral e de ordem pública condicionadora do exercício de direito ou de atividade particulares às exigências do bem estar social (...) não de corresponder às justas exigências do interesse público que as motiva sem produzir um total aniquilamento da propriedade ou das atividades reguladas (...) só são legítimas quando representam razoáveis medidas de condicionamento do uso da propriedade, em benefício do bem-estar social (CF, art. 170, III) e não impedem a utilização da coisa segundo sua destinação natural (...). Vê-se, pois, que a limitação administrativa difere tanto da servidão administrativa como da desapropriação. A limitação administrativa, por ser uma restrição geral e de interesse coletivo, não obriga o Poder Público a qualquer indenização (...) são, por exemplo, o recuo de alguns metros das construções em terrenos urbanos e a proibição de desmatamento de parte da área florestada em cada propriedade rural. Mas, se o impedimento de construção ou de desmatamento atingir a maior parte da propriedade ou a sua totalidade, deixará de ser 'limitação' para ser 'interdição de uso da propriedade', e, neste caso, o Poder Público ficará obrigado a indenizar a restrição que aniquilou o direito dominial e suprimiu o valor econômico do bem. Pois ninguém adquire terreno urbano em que seja vedada da construção, como, também, nenhum particular adquire terras ou matas que não possam ser utilizadas economicamente, segundo sua destinação normal. Se o Poder Público retira do bem particular seu valor econômico, há de indenizar o prejuízo causado ao proprietário. Essa regra, que deflui do princípio da solidariedade social, segundo o qual só é legítimo o ônus suportado 'por todos em favor de todos', não tem exceção no direito pátrio, nem nas legislações estrangeiras". *Id.*, at page. 514.

Because it supposedly does not transfer property to the public power nor theoretically denies economic use, it does not provide compensation to the owner.

As professor Hely Lopes wisely stated, in some exceptional cases when the burden is more than a mere restriction and denies the whole economic purpose of the property, the law can allow for compensation. However, the general rule and the jurisprudence do not allow compensation for administrative limitations, consequently making the line between a land use limitation and a taking/expropriation not delimited enough. This has created countless judiciary conflicts when addressing the possibility of compensation when the burden is abusive for the owner/plaintiff.

One should note that the instruments present in the Forest Code such as APP and RL, as previously explored, fit within the concept of administrative limitation, since they are a pure environmental limitation over the property and do not provide for compensation. Also, the protection units established by the SNUC law are mainly accepted as an administrative limitation.

However, this issue is repeatedly discussed in courts, and will be further analyzed in this research.

B) Suppressive Intervention (Intervenção Supressiva):

This intervention transfers the property ownership and the right to use it to the Public Power and would thus be expropriation. Consequently and as a general rule, it requires just compensation.

I- Expropriation/Taking (Desapropriação)¹⁴¹

Similarly to the United States Law, the Brazilian legal system also has an instrument of expropriation / taking, an administrative possibility to request ownership transfer of the land and the right to its use from the private owner to the public power, for the purpose of the preservation of the general welfare through fair compensation.

In this sense, Professor José Afonso stated:

"Expropriation is the limitation that affects the property's perpetuity character, since it is an instrument used by the public power that imposes mandatory ownership transfer from private to public, in order to protect the general welfare or the interests of the common good, through fair compensation."¹⁴²

The Federal Constitution grants the application of the expropriation instrument in cases of non-compliance with the Law and for the preservation of the general welfare, as present in articles 5, XXIV, 182 and 186. However, this complex instrument must be performed carefully and fairly, thusly requiring more rules and regulations addressing its applicability. Law nº 4.132/62 affirms and better defines the situations in which an expropriation can occur.

Similarly to the Takings Clause, the Federal Constitution allows expropriation as follows:

¹⁴¹MARIA SYLVIA ZANELLA DI PIETRO DIREITO ADMINISTRATIVO 21ª EDIÇÃO EDITOR ATLAS 2008, P. 147.

¹⁴²Translated by the author: "desapropriação é "limitação que afeta o caráter perpétuo da propriedade, porque é meio pelo qual o Poder Público determina a transferência compulsória da propriedade particular, especialmente para o seu patrimônio ou de seus delegados, o que só pode verificar-se por necessidade ou utilidade pública, ou por interesse social, mediante justa e prévia indenização em dinheiro." from JOSÉ AFONSO DA SILVA: SILVA, JOSÉ AFONSO DA (1997). CURSO DE DIREITO CONSTITUCIONAL POSITIVO. SÃO PAULO: MALHEIROS."

"article 5, XXIV -
the law shall establish the procedure for expropriation for
public necessity or use, or for social interest, with fair and
previous pecuniary compensation, except for the cases
provided in this Constitution¹⁴³"

Having this as the basis and main support, the rest of the legal system enacts a set of regulations creating requirements and justifying the expropriation. In addition, the public power in this case is can be the Federal, State or Municipal levels of government.

The object of the expropriation can be mobile or stationary goods, also air space and underground areas if necessary, though first it must be proven that the use of the property can result in injury of the general welfare.

As a foundation, the Constitution itself presents other requirements and scenarios regarding its applicability, such as in the (1) urban environment and the (2) social function of this type of property.

"Article 182.

The urban development policy carried out by the municipal government, according to general guidelines set forth in the law, is aimed at ordaining the full development of the social functions of the city and ensuring the well-being of its inhabitants.

Paragraph 3 - Expropriation of urban property shall be made against prior and fair compensation in cash.

III - expropriation with payment in public debt bonds issued with the prior approval of the Federal Senate, redeemable within up to ten years, in equal and successive annual installments, ensuring the real value of the compensation and the legal interest.¹⁴⁴"

¹⁴³CONSTITUIÇÃO FEDERAL [CF] [CONSTITUTION] OCT. 05,1988, ART. 5, XXIV (BR.) (OFFICIAL SENATE TRANSLATION).

¹⁴⁴*Id.*, at ART.182(BRAZ.) (OFFICIAL SENATE TRANSLATION).

Also, the Constitution in article 184 allows the possibility for expropriation (iii) regarding rural properties in non-compliance with the social function demands , *in verbis*:

"Article 184.

It is within the power of the Union to expropriate on account of social interest, for purposes of agrarian reform, the rural property which is not performing its social function, against prior and fair compensation in agrarian debt bonds with a clause providing for maintenance of the real value, redeemable within a period of up to twenty years computed as from the second year of issue, and the use of which shall be defined in the law.

Paragraph 1 - Useful and necessary improvements shall be compensated in cash.

Paragraph 2 - The decree declaring the property as being of social interest for agrarian reform purposes empowers the Union to start expropriation action.

Paragraph 3 - It is incumbent upon a supplementary law to establish special summary adversary proceeding for expropriation action¹⁴⁵".

As previously analyzed, the expropriation of rural property is a possibility, although it is unlikely to happen, because the precedents are scarce and the necessary requirements are hardly ever fulfilled.

Another essential piece of legislation concerning the conceptualization and enforcement of expropriation is Law nº 3365/41, which not only explains the requirements for the application of this instrument, but also structures the judicial process through which it is performed. This is a vital element, since despite it being of an action of administrative nature, it can be performed through a judicial process. As affirmed by articles 11 to 30, expropriation must

¹⁴⁵CONSTITUIÇÃO FEDERAL [CF] [CONSTITUTION]OCT. 05,1988, ART.184 (BRAZ.) (OFFICIAL SENATE TRANSLATION).

respect due process, regardless of the fact that this is not clearly defined in the Law and in the Constitution.

Judicial process is a right which can be used by the plaintiff who feels injured with the expropriation for several reasons, from unfair or disproportionate compensation to an unreasonable or abusively discretionary act.

(i) Inverse Condemnation (Desapropriação Indireta)¹⁴⁶

In Brazilian legislation, there is also the possibility for the citizen to request expropriation when a burden is too harsh. In inverse condemnation, the owner/plaintiff can file an action requesting that the public power takes his property as a normal taking, in the event that the current limitation imposed by the authority is too abusive, significantly diminishing the value and the use of property, and thus fair compensation for the property would be more appropriate.

This type of inverse condemnation requires that the owner be the plaintiff requesting a taking via judicial action, rather than through the administrative level.

However, this prerogative is not always granted. It is extremely hard to achieve it through the courts since the line between a normal limitation and its burdens blurs with the requirements of an expropriation.

Most decisions rule that inverse condemnation as a remedy for burdens imposed due to environmental administrative limitations concerns the

¹⁴⁶MARIA SYLVIA ZANELLA DI PIETRO DIREITO ADMINISTRATIVO 21ª EDIÇÃO EDITOR ATLAS 2008, P. 173.

general welfare and diffuse rights, and therefore does not allow for compensation.

This type of expropriation differs from other instruments in that it is not present in any written Law, it only exists in jurisprudence.

There is a classic case specifically addressing this issue. A decision was handed down regarding the request by plaintiffs for compensation due to the creation of a State park on their property, which consequently limited their rights and prerogative to use the land, as well as negatively impacting its economic value.

It is an important case because it set some criteria on how to analyze cases involving administrative environmental limitations and a possible indirect expropriation required by the owner.

(ii) Serra do Mar State Park Case, the main ruling for environmental limitations and inverse condemnation issue¹⁴⁷

In 1999, the farm Barra Mansa, owned by Álvaro Peres located in the city of Paraibúna, in the State of São Paulo, was chosen to be incorporated within the perimeter of a future state park. This area has within it native vegetation of the Atlantic coastal forest (Mata Atlântica), a forest that was extremely damaged in the past and therefore has a pressing need for preservation.

The creation of a state park is legally possible through the State decree nº10.251/1977. Therefore, the owner filed an action requesting an inverse

¹⁴⁷TRIBUNAL DE JUSTIÇA DE SÃO PAULO [TJ/SP] [SÃO PAULO COURT OF APPEAL] APELAÇÃO CÍVEL Nº 9 84.276.5/1-00-PARAIBUNA (BRAZ.).

condemnation, and thus compensation, because the creation of the park established by the decree was inevitable, and the owner claimed that this act would be enacting abusive limitations to his property, damaging his economic activity. The State Park is also a type of total protection unit defined at article 11 of the SNUC Law¹⁴⁸. Therefore, creating the issue of whether this property burden was an administrative limitation (no compensation) or a situation that could allow inverse condemnation.

The State of São Paulo appealed, claiming that the economic value of the land was not totally diminished and this was an obligation and a natural purpose of the land, addressing the preservation of the environment and social function already existing there.

The 8th Chamber of Public Law from the São Paulo State Court ruled that inverse condemnation as well as the resultant compensation were not appropriate for this case; a ruling that was strongly rigorously adopted by higher courts, including the STJ.

The rationale was explained firstly in the argument that (1) the state decree was in compliance with the Forest Code of 1965, which already stated the obligation of preserving certain areas within the property and was essential for the preservation of the environment. Therefore, this obligation was not created with the formation of the State Park, but existed since the Forest Code of 1965. The plaintiff, having filed the action in 1989, was already aware of the situation regarding his property and could not economically use the land freely.

¹⁴⁸ LEI Nº9.985/2000 (BRAZ.).

Secondly, the court discussed the issue of defining what was a (2) "diminished economic value" and its extension in order to allow an indirect compensation. The question became whether the diminished economic value could constitute a taking. Eventually, the court agreed that the economic value had to become nonexistent or the land totally impossible to use by the owner in order to disallow compensation, and consequently, any work which could be performed or any value retained would not allow compensation.

In addition, this use and value should be weighed through objective purpose criteria, such as the proper use of that land, already considering the natural limitations imposed by environmental protection regulations. Thus, an evaluation and weighing of subjective purposes concerning dreams or expectations of the owner, as well as any economic activity or use he would like to perform on his land in the future, should not be considered.

The court went on to state that (3) the creation of the park never transferred the ownership of the private property to public power, and thus no damage occurred. It also claimed that there was still a present economic purpose of the land, and therefore the owner could not generate compensation through inverse condemnation.

This case was important because it addressed the legal boundaries of inverse condemnation and administrative limitation, specifically regarding situations involving the creation of state parks under this respective state decree, a common occurrence at that time in that region of the state of São Paulo.

Moreover, the case confirmed the difficulty of achieving a ruling granting inverse condemnation despite the fact that it could be an abusive burden from the perspective of the owner, since the court followed "objective purpose" criteria and made the argument that ownership was not transferred to public authority.

Another vital factor was that (4) the environmental administrative limitations enacted by environmental statutes, in this case the forest code of 1965, are a natural burden to the owner on the order of a greater good, which is the definition of environmental preservation, and also part of the social function of the land.

Eventually the request was denied and compensation was not made.

To conclude, in the Serra do Mar State Park case, the court set a new test with the following requirements:

- Diminished economic value must cause total impossibility to use the property.
- The use of the land has to respect obligations of pre-existing legal environmental protections and the social function, which do not have compensation.
- According to the social function of the property, objective criteria must be used for analysis regarding the use of the land for possible compensation. A subjective criteria based on expectations and will of the owner is not appropriate. Activities can only be performed in compliance with the limitation. In fact it changes the activity being

performed by the owner and narrowing several possibilities leaving to almost none profitable.

- Environmental protection limitations do not transfer the ownership, and therefore do not allow inverse condemnation, since the damage would not be absolute.
- Compensation is only possible if further burdens are added to the pre-existing limitations and it is proved that these new limitations are abusive.

As demonstrated, Brazilian Law has a very rich set of instruments to limit property rights in order to preserve and ensure the general welfare. These instruments are composed not only of administrative measures through police power, but also through a judicial and legislative approach. These approaches are managed through instruments which by their nature do not allow any kind of compensation, such as the APP, RL and the units stated on the SNUC Law. These instruments, stated in Law, can occupy significant portions of the property, creating significant burdens; for instance, the RL on the amazon region affects up to 80% of the property.

Also, in most of these situations there are no clear differentiations between what is a limitation, or a potential indirect expropriation and compensation. Despite the specific attempt of the São Paulo Appellate Court to create clear lines between both, sometimes the Law can be confusing when creating abusive limitations that must be compensated, and thus a legal technical interpretation of the case using this guidance could create unfairness.

3.6 Land Use Limitations and Environmental Protection - Abusive Limitations?

As observed in the issue involving the Serra do Mar state park case, it is possible that the use of these legal instruments, especially the creation of state parks, can completely diminish the economic value of the property and even then the possibility of inverse condemnation and compensation is denied, since the ruling used only allows this possibility if the act actually transfers the ownership to the public power, which does not happen with administrative limitations.

Therefore, the discussion that occurred during the Lucas case in the United States about broadening the concept of physical invasion as diminished economic value resulting in compensation for a regulatory taking would never happen in Brazil. This is strongly reaffirmed by jurisprudence, especially in the STJ, by applying the ruling in which compensation is only possible if there is an ownership transfer, regardless of harsh land use regulations and how much the value was diminished by the taking, i.e. only for categorical takings.

As an example, there is the decision of an appeal by Superior Court of Justice (Agravo Regimental in recurso especial nº 155.302 - RJ 2012/0066045-7¹⁴⁹) defending this point of view, using the rationale that a physical invasion has to actually happen through government action, detaching the factor of economic value from the discussion of the issue of whether an environmental limitation would be considered a taking, since environmental protection is essential.

¹⁴⁹SUPERIOR TRIBUNAL DE JUSTIÇA [STJ] [SUPERIOR COURT OF JUSTICE] AGRG NO AGRAVO EM RECURSO ESPECIAL Nº 155.302 - RJ(2012/0066045-7) (BRAZ.).

The court also ruled that some conservation units of total protection transfer the ownership to the public power and thus would require compensation. However, as seen in the Serra do Mar State Park case, the court ruled that the creation of the park, which by law is a type of total protection unit, was not viewed as transferring the ownership, thereby allowing us to conclude that the issue is not clear and can generate an unfair burden.

For some types of vegetation like Mata Atlântica, this ruling is even stronger and harsher, since in 2012 the STJ decided that all administrative limitations in Mata Atlântica areas never constitute inverse condemnation or have compensation, despite diminishing the economic value.

The discussion started when Decree 750/93¹⁵⁰ totally terminated all economic activities performed in Mata Atlântica areas located in the state of Paraná and also determined that the property of the plaintiffs should be under public power through inverse condemnation and that the federal government should therefore pay compensation. However, the Federal government appealed to the Superior Court of Justice (STJ) claiming that the environmental protection of decree 750/93¹⁵¹ did not constitute a taking nor generate right to compensation. Sharing the same point of view, justice

¹⁵⁰The article 1 forbids all kinds of exploitation and suppression of the Atlantic forest in advance or medium stage of regeneration; also on its article 10, the Decree establishes that all "activities current being performed in no compliance with the regulations enacted by e decree should adapt" which it is also possible to affirm that it is has retroactive effects, since already existing activities are being questioned.

¹⁵¹Later on in 2006, the Law nº 11.482/2006 was enacted only addressing the Mata Atlântica, consequently known as the "Mata Atlântica Law" and as Professor Paulo Affonso said, it gave to the Decree 750/93's content a Law strength, See PAULO AFONSO LEME MACHADO, DIREITO AMBIENTAL BRASILEIRO, 820 (MALHEIROS, 18 ED, 2010).

Castro Meira ruled that it was already a tradition of the court to not give compensation for environmental limitations, thus the limitations imposed by the decree did not prohibit all economic activities that were in compliance with the environmental protection, a decision that was eventually confirmed by the majority of the second chamber of the court¹⁵².

It must be noted that this decree was already replaced by Laws nº 11.428/2006 and nº 6.660/2008, both of which are even stricter. To conclude, it can be observed that the Brazilian judiciary makes rulings that are extremely protective of the environment, regardless of a property's value depreciation, under the rationale that these kinds of limitations do not prohibit economic

¹⁵² STJ - RESP: 1120228 SC 2009/0016325-0, RELATOR: MINISTRA DENISE ARRUDA, DATA DE JULGAMENTO: 03/11/2009, T1 - PRIMEIRA TURMA, DATA DE PUBLICAÇÃO: DJE 24/11/2009

The original decision content:

"PROCESSUAL CIVIL. ADMINISTRATIVO. RECURSO ESPECIAL. DECRETO 750/93. PROVA PERICIAL. INDEFERIMENTO. AUSÊNCIA DE PREQUESTIONAMENTO. SÚMULA 211/STJ. PROIBIÇÃO DO CORTE, DA EXPLORAÇÃO E DA SUPRESSÃO DE VEGETAÇÃO PRIMÁRIA OU NOS ESTÁGIOS AVANÇADO E MÉDIO DE REGENERAÇÃO DA MATA ATLÂNTICA. SIMPLES LIMITAÇÃO ADMINISTRATIVA. AÇÃO DE NATUREZA PESSOAL. PRESCRIÇÃO QUINQUENAL. DECRETO 20.910/32. 1. Ausente o questionamento prévio da matéria deduzida no recurso especial, apesar dos embargos de declaração opostos, é inviável o seu conhecimento. Aplicação do princípio consolidado na Súmula 211/STJ. 2. Para que fique caracterizada a desapropriação indireta, exige-se que o Estado assuma a posse efetiva de determinando bem, destinando-o à utilização pública, o que não ocorreu na hipótese dos autos, visto que a posse dos autores permaneceu íntegra, mesmo após a edição do Decreto 750/93, que apenas proibiu o corte, a exploração e a supressão de vegetação primária ou nos estágios avançado e médio de regeneração da Mata Atlântica. 3. Trata-se, como se vê, de simples limitação administrativa, que, segundo a definição de Hely Lopes Meirelles, "é toda imposição geral, gratuita, unilateral e de ordem pública condicionadora do exercício de direitos ou de atividades particulares às exigências do bem-estar social" ("Direito Administrativo Brasileiro", 32ª edição, atualizada por Eurico de Andrade Azevedo, Dêlcio Balestero Aleixo e José Emmanuel Burle Filho - São Paulo: Malheiros, 2006, pág. 630). 4. É possível, contudo, que o tombamento de determinados bens, ou mesmo a imposição de limitações administrativas, tragam prejuízos aos seus proprietários, gerando, a partir de então, a obrigação de indenizar. 5. Não se tratando, todavia, de ação real, incide, na hipótese, a norma contida no art. 1º do Decreto 20.910/32, o qual dispõe que "todo e qualquer direito ou ação contra a Fazenda Federal, Estadual ou Municipal, seja qual for a sua natureza, prescreve em cinco anos contados da data do ato ou fato do qual se originarem". 6. Assim, publicado o Decreto 750/93 no DOU de 11 de fevereiro de 1993, não resta dúvida de que a presente ação, ajuizada somente em 21 de junho de 2007, foi irremediavelmente atingida pela prescrição, impondo-se, desse modo, a extinção do processo, com resolução de mérito, fundamentada no art. 269, IV, do Código de Processo Civil. 7. Recurso especial parcialmente conhecido e, nessa parte, desprovido.

STJ - RESP: 1120228 SC 2009/0016325-0, RELATOR: MINISTRA DENISE ARRUDA, DATA DE JULGAMENTO: 03/11/2009, T1 - PRIMEIRA TURMA, DATA DE PUBLICAÇÃO: DJE 24/11/2009".

activities "in compliance with the environmental law." However, the type of activities restricted by the law completely change the activities already being performed by the owner, thereby not allowing property its most profitable use, and limiting its production capabilities significantly so that it diminishes and deprives to the owner the value of the property. This, for the court, is not a taking criteria, in other words, the idea of completely diminished economic value due to environmental limitation through an administrative measure, in the Brazilian jurisprudence it is not accepted and interpreted as a "physical invasion" as in the U. S. in the Lucas case, and consequently, it does not have compensation - the understanding of broadening physical invasion to involve total diminished economic value is not possible.

Conclusion

A Comparative Analysis

As analyzed in this research, both countries and their respective legal systems are concerned with the environmental protection and a sustainable economic growth. These concepts are intensely debated and agreed upon not only on a domestic level, but embedded in international declarations such as Stockholm and Rio, putting the environmental debate front and center of this new century.

However, despite having very similar instruments and concepts of how to impose limits and protect the environment, they also have clear and strong differences which have positive and negative consequences. The main goal of this work was to observe how these consequences affect each system so that pros and cons could be weighed and analyzed, especially from the Brazilian perspective.

A) Constitutional aspects

Initially, as observed in both systems, the Constitution plays an essential role, not only being the main and most important piece of legislation, setting a guidance for statutes and legal interpretations, but also forming the main principles and the essence of each country and its people. In the United States, the environment is not identified in the constitution expressly because it is a very old document and at that time this certainly was a nonexistent and unimaginable concern. However, the founding fathers created the mechanism

allowing the federal government to impose national rules and norms, something that has proved essential for the environmental statutes: i.e. the commerce clause was evaluated with the Lopez case as to what the limits were to this federal power that until that moment seemed unlimited and extremely broad.

In Brazil, the Constitution expressly stated that environmental protection is a right for all and future generations in article 225. This was an impressive legal improvement, officially making it a diffuse right, which eventually increased the strength of protection and range of statutes and its limitations. However, as observed in the precedents, the judges denied compensation for strong environmental limitations claiming that it all conformed to federal statutes that protected the diffuse right of a balanced environment. Consequently, it is not so flexible for litigation in the defense of property rights.

B) Property Aspects

In both legal systems, property is a fundamental and unalienable right, a reflection of Western society and economic evolution itself. However, both countries also fail to consider it an absolute right, allowing certain limitations such as environmental protections and standards as previously observed.

In addition, the Brazilian Constitution enacted the social function of property, demanding from the owner a positive posture regarding land use in defense of the general welfare, which is intensely used by courts defending environmental limitations.

C) Environmental Limitations

Both countries share concepts deriving from administrative law which can impose limits to property right embedded in the State's police power. Both have the same idea that some limitations protecting the general welfare and that do not diminish the economic value of the land should not have compensation, such as regulatory takings and land use in the United States and the administrative limitation in Brazil.

The main common issue here is the boundary between these types of limitations that come "naturally" with the land and an endurable burden for the owner with the overly heavy obligation imposed to private property, making it a taking/expropriation requires compensation.

Brazil and the United States both apply the idea that compensation is owed only when the economic value of the land is completely diminished, as seen in the Lucas and Serra do Mar State Park cases defining whether a regulatory taking or an administrative limitation would have to be compensated. Also, both nations similarly determined that if the owners were aware of the limitations already imposed by a specific regulation when the land was purchased, this would disallow the right of future compensation. This ruling occurred in the Palazzollo case¹⁵³ in the United States, and in the previously cited cases in Brazil. Therefore, the common denominators for both

¹⁵³ PALAZZOLO V. STATE, Nº WM 88-0297, 2005 R.I. SUPER LEXIS 108 (R.I. SUPER. CT. JULY 5, 2005).

countries for seeking compensation for a regulatory taking are (i) valueless land and (ii) newly enacted limitation.

However, the similarities end here. Brazilian law and jurisprudence make it clear that to request compensation for environmental limitations, the governmental act must have somehow transferred part of the ownership of the property to the public power. This does not happen when the limitation is administrative, therefore limiting the scope of compensation only to absolutely clear categorical takings performed by the government. The owner can file an action of inverse condemnation as discussed, but the court will certainly overrule, rooted in the argument that ordinary environmental limitations do not transfer ownership to the state. These limitations naturally belong to the property since it is not an absolute right in respect of the general welfare and diffuse rights. This was especially true after the STJ decision about Mata Atlantica, which set an even—stricter understanding of environmental limitations that in certain areas do not generate right to compensation.

Meanwhile in the United States, the “physical invasion” criteria was broadened by the Lucas case, as “complete diminished economic value” allowed for a richer variety of possibilities for seeking compensation for an abusive burden enacted by regulatory taking.

In addition, the environmental statutes in Brazil have more instruments to limit property rights, which mostly are claimed as administrative limitations (eg. APP, RL which in the amazon region can reach 80% of property alone and the SNUC units of total protection) and in certain cases, completely diminishing the value of property, as analyzed with presented precedents,

since it was initially stated by the court that these units and limitations do not transfer ownership, consequently not allowing compensation.

D) Final Considerations

Finally it can be affirmed that, apparently, the environmental protection in Brazil is more pro-active and definitely has a broader scope, and it is more easily accepted by the courts and consequently limits property to ensure the general welfare. But eventually property rights are more commonly limited and the owner can be easily injured, which brings economic instability and a more hostile business environment.

On the other hand, the United States also has a very rich set of instruments for environmental protection, though most of them do not overly compromise property as in Brazil. The requirements to seek remedies as compensation for abusive limitations done by land use regulations and regulatory takings are easier to achieve in comparison with Brazilian legislation. The negative aspect of this system is that environmental protection is more flexible and despite all the environmental statutes with all the high standards for preservation, they are not enough and eventually generate damages regarding inappropriate use of the land, especially for forests.

Another positive factor in the United States is that because of the Common Law tradition, the judge has a stronger and more independent role regarding the analysis of the case and more freedom in his/her ruling. This was evident in Lucas, which completely changed the understanding when

addressing the regulatory taking/ compensation issue. This was only possible with a more careful and individualized interpretation of the case and the actual situation in hand

Differently, in Brazil, because of the Civil Law tradition, judges have a more formal role by only applying the Law to the case and not having much space to introduce his/her personal understanding of the situation. This consequently generates a more a uniformed jurisprudence, thus injuring owners with a specific scenario, and the reason why it is difficult to find an swift change without modification to the law. This *can* good for environmental protection, but again, it can injure property rights disproportionately.

Finally, from a Brazilian perspective, the lesson to be learned from this analysis is that a balance could be better applied. For example, maybe with a more independent judge to actually analyze the case and its particular facts, unfair rulings would be reduced. In addition, in order to achieve a more balanced system in terms of environmental protection and property rights, those in charge of creating and applying these laws should be prompted to better research the sustainability of economic activities that can be performed in the property of certain areas. At the same time, mitigation may be proposed by empowering the specific licensing process for this matter rather than only enacting harsh land use regulation and limitation in which the regulatory processes mostly do not include mitigation or a more specific approach, eventually prohibiting the owner to develop his/her economic activity.