IOSR Journal of Business and Management (IOSR-JBM)
e-ISSN:2278-487X, p-ISSN: 2319-7668. Volume 25, Issue 9. Ser. 2 (September. 2023), PP 15-24
www.iosrjournals.org

Use Of Wind Energy In Brazil And Its Socio-Environmental Consequences Proven From A Jurisdictional Perspective

Rafael Cajano de Oliveira[1], Alex Paubel Junger[2], Julio Carlos Teixeira[3]
[1](*Federal University of ABC, Brazil. ORCID:https://orcid.org/0000-0002-6061-7139)*
[2](*Cruzeiro do Sul University, Brazil. ORCID:https://orcid.org/0000-0002-0148-2457)*
[3](*Federal University of ABC, Brazil. ORCID:https://orcid.org/0000-0002-1782-5231)*

Abstract
This work aims to analyze the environmental impacts of wind energy exploration activities and also to discuss the risk of the activity for populations and sensitive ecosystems in the area of direct influence. Starting from the understanding of the activities of the electricity generation industry through renewable sources in its various stages, this is based on a bibliographical research. This article aims to expand knowledge about the use of wind energy and its impacts on the socio-environmental, because to generate electricity through the wind and deliver this energy to end consumers, several processes are necessary. Faced with the need to better understand these socio-environmental impacts, this work will specifically focus on wind energy. Therefore, analyzing judicial decisions in disputes involving large companies in the wind sector and the possible favors for the development of their activities, in view of this, verifying whether the environmental studies developed within the scope of the Environmental Impact Assessment system and prior environmental licensing have been carried out according to the good practices indicated by the environmental manuals available in the academic environment, in a sufficient and adequate way to influence decision-making.
Keywords*: Wind Energy; Socio-environmental impacts.*

Date of Submission: 01-09-2023 Date of Acceptance: 11-09-2023

I. Introduction

The need to use energy, in its most varied forms, is a reality of societies since they began to form. This need intensified with the advent of the Industrial Revolution, due to the intensive use of fossil fuels, such as mineral coal and oil. In subsequent centuries, when the Industrial Revolution reached its peak, the unbridled use of oil and its derivatives began, used in industrial processes as well as fuel for vehicles, increasing the importance of fossil energy, especially after the Second World War, when the Since then, fossil energy has gained space as the most used resource to generate energy in the world today.

In this area, both fossil fuels and hydroelectric plants generate a high and aggressive environmental impact. For this reason, Brazil has experienced, in recent years, an accelerated growth in renewable energies. In view of this, taking into account climate change and the intensified environmental degradation in recent years, it is believed to be crucial to change to the so-called energy transition.

However, for the use of these energies it is necessary to transport them to the large centers of consumption, that said, it appears that the connection has also been a challenge for the expansion of wind energy generation, after all, for the expansion of the subsystem of transmission of electricity, a series of infrastructure measures is necessary. However, such processes are time-consuming and are subject to an extremely bureaucratic system of auctions and concessions.

That said, the study aims to contribute to the environmental debate, after all, predictability and legal certainty in the implementation of environmental licensing processes and other decision-making acts related to the authorization of works and services of electricity generation projects, in particular those of wind source, are essential to the governance and development of Brazil.

II. Methodology

The research to be developed can be characterized as a narrative literature review research, which consists of presenting new information by providing current knowledge on the explored topic or emphasizing gaps in the body of research, and thus instigating researchers to improve the database. scientific.

In addition, the choice of publications took place from April 2019 to January 2023, in two ways: access to the catalogs of dissertations and theses of the Theses Bank of the Coordination for the Improvement of Higher

Education Personnel (CAPES) and the Brazilian Digital Library of Theses and Dissertations (BDTD). Therefore, works published since 1990 were used. It was preferred to search for information in dissertations and theses, judging by the fact that they have greater detail regarding the methodological stages covered.

That said, the following steps were taken: consultation of all virtual libraries of the Stricto Sensu Graduate Programs in Brazil recognized by CAPES. The search in the virtual libraries was carried out using the following keywords: Oil, Environmental impacts; Sustainability.

III. Environmental law and its diffuse nature

Environmental law is considered an area of law with a diffuse nature, that is, it is an area in which collective rights and interests are protected and the State has the duty to protect the environment as a common good. This means that environmental law does not only apply to specific individuals, but to the whole of society and the environment as a whole. Thus, according to Sirvinskas (2009), one of the characteristics of the environmental legal asset is its essentiality to a healthy quality of life, with the legal concept of an environmental asset being broader than an economic one, as it encompasses all natural resources essential to a healthy quality of life, while the other characteristic is its diffuse nature (common use of the people), in the sense of creating a type of good that, given its legal nature, cannot be confused with public goods, much less with private goods (FIORILLO, 2009).

According to Canotilho (2007), environmental law is one of the new fundamental rights, therefore, it deals with a fundamental right of a diffuse nature, since it belongs to everyone, in this way, it must be defended and preserved for present and future generations . After all, the diffuse nature of environmental law implies that responsibility for protecting the environment is shared by everyone, including the state, business and society as a whole. This means that all parties have a duty to act responsibly and contribute to the protection of the environment, and that the State has a duty to monitor and punish activities that cause damage to the environment.

Moreover, according to Bonavides (1997), the environmental issue is correlated with third-dimensional rights, enshrining the principle of solidarity and constituting an important moment in the development process, thus materializing powers of collective ownership generically attributed to all social formations, characterized as unavailable core values.

In this connection, the right to the environment, at the highest normative level of the Brazilian State, the Magna Carta, in its article 225, established for the first time in the history of Brazilian constitutional law, directly, the foundations of constitutional environmental law. In the text in question, institutionalized the right to a healthy environment as a fundamental right of the individual, as the constituent stated that a balanced environment is a good for common use by the people, which is essential to a healthy quality of life (MILARÉ, 2009). In this area, according to the provisions of the Magna Carta, we are not able to survive without a healthy environment, and environmental balance is necessary for our existence and health. After all, in the constitutional text, the environment is described as one of the pillars of human dignity, since it is a fundamental right essential to the well-being of the entire global community, including future generations.

However, in order to analyze the aspect in question, we need to conceptualize the environment, whereas, in accordance with Law No. , influences and interactions of a physical, chemical and biological nature, which allows, shelters and governs life in all its forms". In this sense, the Brazilian legislator conjectures that the environment must be protected in order to guarantee the essential healthy quality of life for man, but, for that, it is also necessary to defend and preserve the natural elements that make up this environment. After all, by treating the Ecologically Balanced Environment as a fundamental human right, the Federal Constitution adopted an anthropocentric view of the environment that surrounds us, allowing a broader scope of the constitutionally protected legal good (ANTUNES, 2010).

Thus, it is understood that the environment must be protected with a view to benefiting man, but also with the aim of preserving the ecological system itself. However, according to Antunes (2010), there is a constitutional, legal and social obligation with the protection of ecological processes that can be linked to the subject of law, understood as such the human being. Therefore, it is possible to identify the objects that compose it, these being the aspects that make it possible to identify the environmental good that is being specifically protected, and thus also damaged. Whereas, although the environment is one, it is a diffuse good (indivisible, transindividual), of common use by the people (of indeterminate ownership).

That said, based on the aspects systematically observed in the Federal Constitution, it is clear that the Brazilian legislator classifies the environment as artificial environment, natural environment, genetic heritage, cultural environment and work environment . In view of this, according to Fiorillo (2009), as an artificial aspect, we can see that this concept is related to the quality of life of man in the place where he lives, whether in the city or in the countryside, and the control of his actions in this environment. After all, this refers to the protection of an adequate urban order, and the fulfillment of the social and environmental function of the property. The natural environment, on the other hand, is linked to the protection of fauna, flora, air (atmosphere), soil and subsoil, water, in short, all the natural environmental resources of the environment in which we live. In this connection, the

genetic heritage would deal with the preservation of its identity and integrity and the supervisory role exercised over the entities dedicated to the research and manipulation of genetic material. On the other hand, the cultural environment would be correlated to the Brazilian cultural heritage, constituted by goods of a material and immaterial nature that bear reference to the identity, action, memory of the different groups that form Brazilian society (FIORILLO, 2009).

In addition, the work environment would be based on the salubrity of the environment and the absence of agents that compromise the physical-psychic safety of workers. According to the constitutional text, it constitutes the place where people carry out their work activities related to health, whether paid or not. Therefore, we realize that the described concept of environment is comprehensive, with all aspects that form environmental protection presented in an immediate way in art. 225, caput, of the Magna Carta, which can be completed in the factual context, according to each concrete reality that presents the situation under analysis (ANTUNES, 2010).

IV. State Responsibility for Environmental Damage

The concept of environment is broad, not limited only to the natural aspect of its elements, but also encompassing values and cultural goods, the urban environment and its structures, and the physical and psychological balance of human beings, whether in their work environment , or in the places where he travels and lives. Therefore, environmental well-being must be defended and protected by the Public Power and the population in general, whether individuals, civil entities or private companies. After all, the interconnection and interdependence of humanity with the biosphere means that the degradation of ecosystems affects human beings themselves. Thus, with regard to state responsibility, the state is responsible for ensuring the protection of the environment and for monitoring and punishing activities that cause environmental damage. In addition, the State can be held responsible for environmental damage caused by its actions or omissions, such as, for example, the construction of public works that cause damage to the environment, or the lack of supervision of activities that harm the environment (BENJAMIN, 2018).

Thus, in the event of an injury to the environment, we will have a situation of environmental imbalance, which must necessarily be remedied, minimized or compensated, under penalty of responsibility of the injured party. In view of this, the norms that deal specifically with the environment delegate to the Government the effective control of potentially polluting activities or capable, in any way, of generating environmental degradation, depending on prior environmental licensing. Environmental protection requires, therefore, the delimitation of the object that is intended to be protected (the environmental good), and, moreover, of the very notion of balance. After all, the constituent was clear in establishing that the environment must be guaranteed in its state of vital balance for the healthy quality of life of present and future generations. In this regard, the repair of environmental damage and the restoration of essential ecological processes affected by them is a constitutional imposition, brought by art. 225, § 1^{O}, I, e § 3^{O}, of the Federal Constitution of 1988 (CF/88), a fundamental legal norm with the legal nature of a right-duty (SARLET, FENSTERSEIFER, 2012).

Furthermore, any human intervention in the environment is capable of causing environmental degradation, and the idea of balance is not reasonable to limit human action to the untouchability of its environment. Thus, by balancing positive and negative impacts on the environment, some damage can be absorbed, provided that all available and appropriate means are used to eliminate or minimize the same, and the undertaking is important to society, prevailing the benefits of the activity. In view of this, the legal literature and the forensic reality have shown that civil liability, however better and more adapted it may be to respond to this class of losses, is insufficient. That said, several environmental damages end up being borne, to a greater or lesser extent, by the victims themselves or by the community, and not by lawbreakers, which violates the legal principle of the polluter pays, in addition to going against the redistributive vocation of Environmental Law (MARTIN MATEO, 1977).

In this area, state responsibility can be the subject of administrative or judicial proceedings, and the sanctions applied to the state can include obligations to repair damage, compensation or even interruption of activities harmful to the environment. However, despite the State's failure to adopt and implement legal mechanisms that effectively promote this right, a fact that has given rise to multiple attacks on the subjective rights of individuals. Furthermore, allowing that environmental damages continue to be insufficiently repaired, even against the post-positivist legal trend of granting maximum effectiveness to fundamental rights, revealing disrespect for the radiant effectiveness of the fundamental right to an ecologically balanced environment. That said, when comparing with other countries, there are examples that have given greater attention to other instruments for repairing environmental damage, such as insurance against environmental risks, risk-sharing agreements; instruments that promote the financing of damage repair through the use of capital markets and, also, financial reparation funds (FAURE, HARTLIEF, 2018).

In this regard, the National Environmental Policy (PNMA) created by Law 6,938, of 1981, in force until today, represented a great advance in the legal protection of the environment, transforming national thinking regarding the need to implement of a socioeconomic development in harmony with the preservation, improvement

and recovery of the environmental quality. In this way, the Brazilian legislator innovated, adapting the norm to the reality of the environmental crisis discussed globally, bringing modern concepts and creating instruments to protect the environment that met the expectations of the most advanced legal systems, shaping the pillars aimed at promoting sustainability in the country.(CANOTILHO, LEITE, 2007).

In this way, the national legal order would be created in the fight for environmental preservation, behold, the Federal Constitution of 1988 dedicated an entire chapter (Chapter VI - On the Environment) to the protection of the environmental good and declared, in the caput art. 225, the healthy environment as a fundamental right, linking the idea of ecological balance of the environment to a healthy quality of life, in view of this, Brazil would undergo a process called doctrinally by "greening the Constitution" or "constitutionalization of the environment", that it was already an "irresistible international trend, which would coincide with the emergence and consolidation of Environmental Law, essential both for present generations and for future generations, imposing not only on the Government, but also on society as a whole, the duty to defend it". it and preserve it" (CANOTILHO, LEITE, 2007).

Therefore, art. 225 of the Magna Carta directed, for the first time in the history of Brazilian constitutional law, directly, the right to the environment, ruling, as a result, at the highest normative level of the Brazilian State, the foundations of constitutional environmental law. After all, it dedicated to it, along with a constellation of sparse rules, a chapter of its own that, definitively, institutionalized the right to a healthy environment as a fundamental right of the individual, moreover, not only for the present generation, but also for future ones, as this is a right that guarantees the quality of life and human life itself (FIORILLO, 2009).

However, such premises are not only in art. 225 of the Federal Constitution, we can find within the scope of legislative competence, the concurrent competence between the entities of the federation, being responsible for legislating on forests, hunting, fishing, fauna, nature conservation, defense of the soil and natural resources, protection of the environment environment and pollution control; protection of historic, cultural, artistic, tourist and landscape heritage; liability for damage to the environment, the consumer, goods and rights of artistic, aesthetic, historical, tourist and landscape value (art. 24, items VI, VII and VIII of CF/88). Furthermore, in art. 23, items III, VI and VII, of CF/88 the common material competence of the Union, the States, the Federal District and the Municipalities to protect the remarkable natural landscapes and the environment and combat pollution in any of its forms and to preserve forests, fauna and flora. Therefore, when outlining urban rules, the constituent deepened the guidelines regarding the concept of quality of life, satisfaction of the values of the dignity of life and the human person, limiting the right to property to the socio-environmental function (art. 5, XXIII, art. 182, caput and paragraphs, art. 186 and art. 190, all of CF/88) (CANOTILHO, LEITE, 2007).

This time, when we analyze the wording of article 170, VI, CF/88, the Brazilian Political Charter establishes the defense of the environment as one of the principles of the Economic Order, demanding the action of an interventionist State, preserving individual rights and guarantees, which contributes to environmental balance, including through differentiated treatment according to the environmental impact of products and services and their preparation and delivery processes. Thus, in art. 5, caput, CF/88, teaches about the right to life, then in article 6, describes the right to health, establishing a Unified Health System that must, among other attributions, participate in the control and inspection of products and substances toxic and radioactive substances, and collaborate in the protection of the environment, including that of work (Art. 200, VII and VIII, CF/88), the right of indigenous peoples (Art. 231, paragraph 1, CF/88), to protect the Brazilian cultural heritage, through inventories, records, surveillance, listing and expropriation, and other forms of safeguarding and preservation (art. 216, CF/88), the right to exercise popular action (art. 5, LXXIII , of CF/88), which also promotes community participation, and public civil action (art. 129, III, paragraph 1, CF/88) (CANOTILHO, LEITE, 2007).

Thus, despite such provisions, it is well known that it is only possible to achieve effective prior control of potentially polluting activities if there is cooperation between society and the Public Power, in order to join efforts in the sense that economic activities, to be implemented or existing, have the purpose of developing rationally, with environmental balance and promoting socially fair actions, respecting cultural, material and immaterial values, the quality of life of the community, as well as using technology and science in favor of maximizing of the positive impacts and the minimization of the negative impacts that may arise from them (NALINI, 2010).

Thus, for the construction of an Environmental Rule of Law, it is necessary to combine environmental norms and ethics (which is achieved through ecological awareness), and the Federal Constitution must strengthen the role of the State as protector of environmental values and principles and of participatory citizenship, treading a path whereby individuals and legal entities, whether public or private, adopt positions and conduct that defend and preserve a healthy environment and the well-being and health of the community (NALINI, 2010).

V. The study of trends in Judicial Decisions

According to Arguelhes (2006), it is through the jurisdictional function that the State, especially through judges, applies the current law in the legal solution of conflicts, in view of this, it is possible to observe situations

in which the Judiciary is not the primary source trend in judicial decisions. Therefore, it is assumed that all judges are impartial and neutral, so that all empirically observed disparities in decisions could be explained based on legal rules. In this area, however, there are situations in which the legislator himself establishes favoring a certain party or situation, to the detriment of another, so that the tendency in judicial decisions would not be in the judicial decision per se, but in normative acts prior to this, originating from the Legislative Power or the Executive Power, which the magistrate must rely on.

According to Volkov (2016), the presumption that there is no bias in judicial decisions is the appropriate starting point for the analysis of decisions and assumes that all magistrates are impartial in their judgments. In general, there is a trend towards more inclusive decisions and protection of human rights, women's rights and indigenous peoples' rights. Furthermore, environmental justice has become an important issue in many countries, with court rulings recognizing the importance of preserving the environment and protecting ecosystems. Furthermore, any empirically observed disparities must be explained with reference to legal rules and, if the analysis reveals trends that cannot be convincingly explained in the aforementioned way, these must be considered the effect of extralegal factors, i.e., which present a tendency in judicial decisions. .

In this regard, several studies have analyzed such issues, trends in judicial decisions vary from country to country and from time to time, but some general trends can be identified. In this way, we can mention two surveys carried out in the state of Rio Grande do Sul (RS) that analyzed the use of trend in judicial decisions to obtain medical treatment and medicines: the first concerns the judicialization of demands for access to high-cost medicines for a rare genetic disease, Fabry disease, in which it was found that, in the lawsuits that made up the sample, there were 13 requests for anticipation of guardianship, of which 12 were granted, and by the end of the research, 2 had been registered sentences, both valid (SARTORI JUNIOR et al., 2012). The second is the request for treatment for Phenylketonuria (PKU), in which it was found that in 95% of the demands the judges decided in favor of the applicants (TREVISAN et al., 2015).

In another study that analyzed the trends of the Judiciary in the face of demands on the judicialization of the right to health in the Federal District, it was found that in 70% of the cases analyzed there was an injunction favorable to the applicant (DINIZ et al., 2014). However, in another research carried out by Borges and Ugá (2010), who analyzed 2,062 actions with sentences handed down in the 1st instance in individual actions against the State of Rio de Janeiro, related to the judicialization for obtaining medicines. The researchers found that there were no cases in which drug requests were rejected, which indicates that the Judiciary has always been in favor of the user in these cases. (BORGES; UGA, 2010).

However, in Minas Gerais, in another analysis, the legal demands whose active procedural pole required access to medium and high complexity procedures in the Unified Health System, the authors identified the granting of preliminary injunctions in 71% of the actions (GOMES ET AL. ,2014).

It should be noted, however, that such behaviors are also found at the international level, thus, in a study led by Meerker, Jesilow and Arrada (1992), they demonstrated the existence of a tendency in judicial decisions regarding the penalty attributed to those convicted of committing offenses common - traffic violations or misdemeanors - sentenced to community service. The authors studied the influence of legal variables (such as typification of the crime, type of punishment imposed, number of hours of service imposed) and extralegal variables (ethnicity, gender, age, fluency in English and employment status) in the definition of the sentence made by local judges.

It is important to highlight that studies like this one are frequently carried out in the North American context, where there is a long tradition of confrontation between whites and blacks, scientific investigations that address the existence of trends in judicial decisions for a long time focused on analyzing the existence of prejudice or racial/ethnic discrimination, as well as gender discrimination, by judges. (MEEKER et al., 1992; ELEK et al., 2013).

However, according to Alesina and La ferrara (2014), in more recent studies that also tested the influence of ethnic/racial prejudice in sentences, considering that first degree courts can make two types of errors (Type I error: judging the defendant guilty, when in reality he is innocent. Type II error, judging the defendant innocent, when in reality he is guilty), if the judicial process is impartial, errors of justice should not be observed more frequently in cases involving certain combinations of defendant and race of victim, i.e. the rate of reversal of the sentence by a higher court should be the same regardless of the race of the defendant and the race of the victim.

From the results obtained, it was possible to verify that the first degree courts tend to give more death sentences that are later reversed in cases in which an ethnic minority defendant kills one or more white victims. Thus, in appeals reviewed by state courts involving a minority defendant, when the victim is also part of a minority, the error rate was 37.7% if the victim was white, and 34.7% if the victim was white. non-white, with a statistically significant difference, however, regarding appeals submitted to federal courts involving a minority defendant, the error rate was 37.6% when the victim was white, and 28.4% when non-white, with statistically significant difference.

Furthermore, according to the same study, if the lower court makes more errors in cases where ethnic

minority defendants killed white victims than in those who killed non-white victims, there must also be more errors in white defendants who killed victims. whites than in those who killed non-whites. Failure to comply with this condition implies the presence of bias in judicial decisions in relation to the racial context. Therefore, after analyzing the data, the authors concluded that in the southern states there is a prejudice against minority defendants who kill white victims in relation to those who kill non-whites (ALESINA; LA FERRARA, 2014).

In another study conducted in Canada, conducted by Thornicroft (2013), which focused on decisions related to the rights of non-unionized workers. The author states that these courts, whose system is based on common law, analyze on a case-by-case basis the disputes that deal with prior notice and consider, when making a decision regarding the reasonableness or otherwise of the period of notice granted by the employer to the employee (a since Canadian law does not define the minimum advance notice that dismissal for cause must be communicated). Decisions dealing with prior notice issued by Canadian appellate courts between the years 2000 and 2011 were analyzed. may grant additional damage. (THORNICROFT, 2013).

The author found that the impact of gender on reasonable notice ratings is statistically significant and women are at a disadvantage in this regard at about 1.5 months. Thus, women would be receiving lower amounts of compensation related to prior notice compared to male employees, thus confirming a gender trend detected in court decisions. (THORNICROFT, 2013).

However, in another study at the Israeli level, Gazal-Ayal (2010) evaluated the existence of ethnic prejudices in the behavior of Israeli court judges, after the arrest of an individual, this is forwarded to the bail hearing, whose judges are assigned to the cases at random, thus, it was possible to analyze the different ethnic interactions between judges and defendants ("Arab judge × Arab suspect", "Arab judge × Jewish suspect", "Jewish judge × Jewish suspect" and "Jewish judge × Arab suspect"), analyzing whether the effect of the suspect's ethnic identity on the probability of release is different between Arab and Jewish judges.

Therefore, according to Gazal-Ayal (2010), the data showed that Israeli judges are not blind to ethnicity, that is, when the accused and the judge belong to the same ethnic group, the probability of their release during the bail hearing increases: there are 6 Arab suspects, 3% more likely than Jewish suspects to be released by an Arab judge, while Jewish suspects are 10.4% more likely than Arab suspects to be released by a Jewish judge. These differences in the treatment of Arab and Jewish suspects by the two groups of judges, according to the author, clearly show a pattern that is consistent with a strong trend in the judicial decisions analyzed.

In another study*intitulado "Too Big to Jail? Company Status and Judicial Bias in an Emerging Market"* the authors assessed whether South Korea's court system is biased in favor of large business groups or chaebols[1] in criminal cases. Unlike previous studies, the authors innovated by exploring the organizational status, of the company or of business groups, instead of the status of the individual, as a potential determinant of the tendency of judicial decisions.

According to Choi et al. (2016), no controlling shareholder of member companies of large business groups included in the study actually fulfilled the prison terms even after conviction. The dominance of these conglomerates in the South Korean market has given them status and economic influence, which, associated with the low quality of legal enforcement in that country, jointly suggest that judicial prejudices may prevail, guaranteeing these large business groups private benefits.

In view of this, when examining judicial decisions to imprison the suspect after indictment or conviction in cases of embezzlement or breach of fiduciary duty, which are the most typically observed white-collar crimes in South Korea, the study found that the probability of incarceration decreases by about two-thirds if the accused are associated with large business groups or large companies. According to Choi et al. (2016), such facts allow us to conclude that there is a tendency in judicial decisions determined by the status of the company, in addition to the social status or class of individual level that had already been examined in the previous literature.

In another study carried out in Russia, where the legislation itself allows sentencers to consider the social and economic characteristics of the offender when making decisions, differences in convictions related to the social and occupational status of defendants tried in Russian district courts for intentional crimes were analyzed. . In this way, the judges analyze employment and family status, as well as the defendant's past conduct in the workplace or community where he resides, so that individuals with a lower degree of social integration, such as the unemployed and non-citizens, would be at a disadvantage, being punished more severely. In this area, when correlating the social characteristics of the defendants and the respective sentences/penalties applied, Volkov (2016) found some regularities:

a) With regard to occupational status, unemployed persons receive more severe penalties than employed defendants, regardless of the type of offense committed;
b) Men receive stiffer sentences than women for violent crimes and theft. Men are also more likely to serve time in prison, except for drug-related crimes;
c) University students receive milder punishments for all types of offences;
d) Russian citizens and local residents are treated more leniently compared to non-Russians and residents of other localities, regardless of the type of crime;

f) Law enforcement officials are punished more severely than others when it comes to fraud and drug-related crimes;
g) For white-collar crimes, public officials receive more lenient treatment than managers in the private sector
h) Entrepreneurs and managers are more likely to receive prison terms, in addition to longer terms of service;

In view of this, according to Volkov (2016), there was a trend in the punishments applied to businessmen and private managers compared to those applied to public servants, especially in cases of fraud, the so-called white collar crimes. Furthermore, according to what was mentioned above, it was found that the analyzed decisions are consistent with the existence of an extralegal tendency, which would be manifested in gender bias, also identified in other countries (THORNICROFT; 2013; FISHER et al., 2016), as well as in the treatment of university students when compared to all other groups.

VI. The land use problem in wind exploration

According to Gorayeb and Brannstrom (2019), the exploitation of wind energy has involved the work of international and global companies, which negotiate, with simple people from regions with greater energy potential, land lease contracts to harness the winds. This time, the discussion of the various problems of wind exploration for wind energy production in Brazil is in the contractual configuration that has been adopted for this purpose.

However, in accordance with Art. 1229 of the Civil Code of 2002, which states that ownership of the soil encompasses that of the airspace and the corresponding subsoil, wind potential belongs to the owner of the land. In this way, the reading of such a device portrays that the wind potential is an extension of private property. As a result, in order to exploit the wind potential of a given region, energy producing companies must then acquire ownership of the land or sign lease agreements with the owners, in order to exploit the winds in this way (TRALDI, 2018).

Furthermore, according to Gorayeb and Brannstrom (2019), Brazil has become a leading country in the deployment of wind energy, as it has invested heavily in data collection and in the creation of various procedures capable of attracting international investments, as well as creating a whole favorable legal framework to take advantage of all the energy potential arising from the good quality of the country's winds. However, according to current doctrine, the bilateral contracts signed in this endeavor should move towards avoiding excessive burden or even unreasonable damage to one of the parties to the detriment of the other. In this dispute, it is known that there is no interference by ANEEL or any instance of the Brazilian State. That said, what we see is a series of conflicts that end up in the judiciary, resulting from the opportunism of companies through the imposition of contractual clauses that make it impossible for landowners to question the terms of the contract.

In this area, according to Traldi (2018), the holders of local powers act as intermediaries for the continuation of contracts, after all, they are facing people in humbler communities and with a lower level of education. Thus, these agents act as business facilitators for international and global companies. In addition, the people who sign the lease contracts are people who commonly live in a family economy, thus, mostly citizens with low education, planting and caring for animals just to survive. While, on the other side of the contractual relationship, there are large international economic groups that exploit energy, therefore, it can be concluded that there is a contractual imbalance in these provisions that impose large fines on the weakest party (lessors) to the detriment of the most vulnerable party. strong (lessees). Thus, analyzing a more recent panorama with decisions linked to conflicts over land from 2012, it appears that 56.8% of the analyzed decisions were handed down in actions throughout 2012, representing more than half of the total amount. Moreover, in subsequent years the data continued to fall, as can be seen in Table 1 and Graph 1, indicating that after the start of negotiations and the respective adjustments and litigation, lessors lose or fail to question their rights.

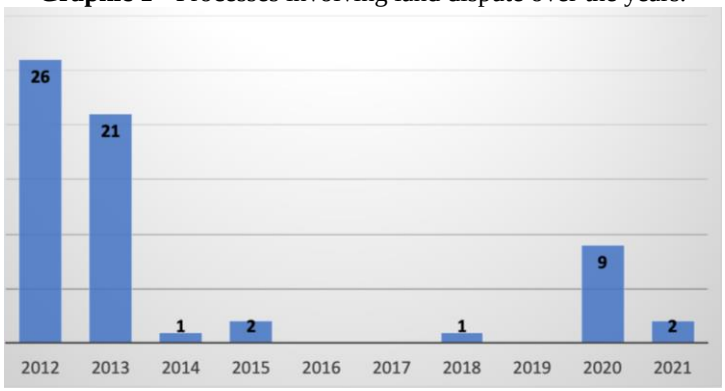
Table 1- Judicial decisions analyzed, distributed in recent years.

YEARS	AMOUNT	PERCENTAGE	ACCUMULATED PERCENTAGE
2012	21	56,8%	56,8%
2013	1	2,7%	59,5%
2014	1	2,7%	62,2%
2015	2	5,4%	67,6%
2016	0	0,0%	67,6%

2017	0	0,0%	67,6%
2018	1	2,7%	70,3%
2019	0	0,0%	70,3%
2020	9	24,3%	94,6%
2021	2	5,4%	100,0%

Source: Ceará Court of Justice (TJCE) website. Self elaboration.

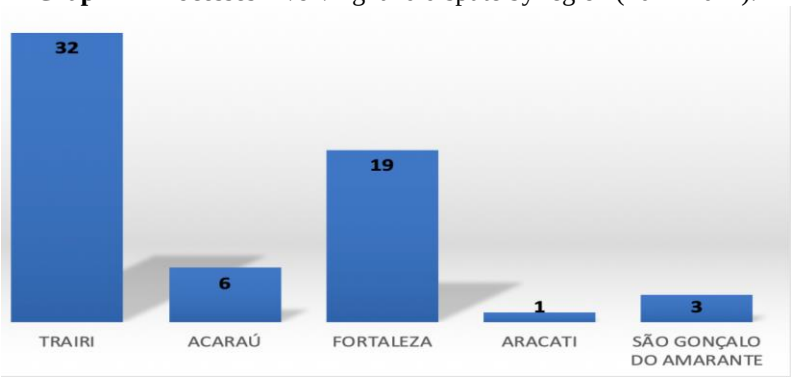
Graphic 1 - Processes involving land dispute over the years.



Source: Ceará Court of Justice (TJCE) website. Self elaboration.

In this regard, according to Table 2 and Graph 2, we can see that more than half of the land conflicts affect the Trairi region, which is located in the north of Ceará, where in 2011 the Alliance of Residents and Friends of Flecheiras (AMA)[1], questioned the installation of the wind farm in the region, claiming that the community was not heard as it should and would not give up on protecting the dunes. In view of this, in the region, the Government prohibited any tourist enterprise in the dunes. However, it totally freed up wind energy. Thus, indicating that such developments, which should move towards avoiding excessive burden or even unreasonable damage to one of the parties to the detriment of the other, end up taking the debate to the spheres of the judiciary.

Graph 2 - Processes involving land dispute by region (2012-2021).



Source: Ceará Court of Justice (TJCE) website. Self elaboration.

Table 2- Judicial decisions analyzed, distributed by county in Ceará.

JUDICIAL DISTRICT	AMOUNT	PERCENTAGE	ACCUMULATED PERCENTAGE
EXPERIENCES	32	52,5%	52,5%
ACARAÚ	6	9,8%	62,3%
STRENGTH	19	31,1%	93,4%
ARACATI	1	1,6%	95,1%

SÃO GONÇALO DO AMARANTE	3	4,9%	100,0%

Source: Ceará Court of Justice (TJCE) website. Self elaboration.

This time, what can be concluded is that such negotiation is marked by legal uncertainty arising from lease contracts. That said, most of these contracts establish clauses providing for the confidentiality of the terms negotiated between the parties. These clauses prohibit the disclosure or publicity of these terms, thus impairing access to information and guidance for lessors, placing them in an even more fragile position in the contractual relationship, after all, in addition to having less negotiating power, they are deprived of the ability to compare with other processes and agreements already in progress. As if that were not enough, in our country, there is no contractual provision for the payment of royalties to the true owners of the land, who are the lessors. Thus, such companies profit even more in counterpoint to the local community. Therefore, such developments further assert the great imbalance between such signed contracts (TRALDI, 2018).

VII. Final Considerations

In view of the above, the activities that make up the electricity generation chain through the force of the winds must be discussed in a more democratic scenario, therefore, it is necessary that such developments are efficiently managed by the public power, in order to cause the less socio-environmental damage in the exploited areas. This time, much research can be done in order to broaden its understanding and application in Brazil, in order to obtain the maximum possible benefits.

Taking into account in the preparation of proposals, consultation mechanisms for the actors involved (forming discussion groups and holding public hearings, public consultation of documents for revision, holding evaluation workshops, among others), as is done in the abroad, in order to subsidize this process. In addition, we also consider it very important that environmental and socioeconomic studies are carried out that can support future installations of wind farms.

After all, according to IBAMA itself, the information available on Brazilian coastal and marine areas is still incipient and it is necessary to invest in the production of knowledge. In this sense, with regard to wind energy exploration activities on the Brazilian coast, there is a lack of information on environmental resources and human activities that generate direct implications for environmental licensing processes, more specifically, with regard to the quality of Socio-environmental Studies and licensing terms (IBAMA/MMA, 2005).

Thus, involving local communities from the beginning of the planning process, carrying out public consultations, hearings and meetings to listen to the concerns and opinions of the affected people, can significantly help the entire process of installing the power plants. In addition, carrying out rigorous environmental and social impact assessments before installing wind projects, identifying and mitigating possible negative impacts on surrounding areas, can be a way to make such projects viable. Therefore, when conflicts arise, seek solutions through negotiations or mediation. Thus, seek consensus among those involved and consider solutions that meet all interests.

However, one cannot forget to provide clear information about the benefits and possible impacts of wind projects, thus, transparently communicating plans, mitigation measures and economic benefits to the community. After all, the local community should receive the economic benefits generated by the projects. These strategies may include royalty payments, investments in local infrastructure or community development programs. However, it is necessary to identify suitable areas for the development of wind projects through territorial planning, in view of this, avoiding sensitive areas from an environmental or cultural point of view.

Furthermore, for the viability of such projects, monitoring systems must be implemented to monitor the actual impacts of the projects over time. In this regard, helping to ensure that mitigation measures are being effective and allowing for adjustments when necessary. Thus, offering training and qualification to local communities so that they can better understand wind projects and benefit from them. Furthermore, as a continuation or complementarity of the work carried out, the following themes are suggested to be investigated in future works; Quantitative analyzes of relevant socio-environmental aspects and impacts, such as the consumption of renewable natural resources in northeastern Brazil.

References

[1]. ALESINA, A.; LA FERRARA, E. A test of racial bias in capital sentencing. American Economic Review, v. 104, n. 11, p. 3397–3433, 2014. Disponível em: http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=99075538&lang=pt- br&site=ehost-live. Acesso em: 21 jan. 2022.
[2]. ANTUNES, P. de B. Direito ambiental. 12. ed. Rio de Janeiro: Lumen Juris, 2010.
[3]. ARGUELHES, D. W. et al. Jurisdição, Incerteza e Estado de Direito. Revista de Direito Administrativo, Rio de Janeiro, v. 243, p. 79-112, jan. 2006. ISSN 2238-5177.
[4]. Disponível em: http://bibliotecadigital.fgv.br/ojs/index.php/rda/article/view/42550. Acesso em: 30 Jan. 2022. doi:http://dx.doi.org/10.12660/rda.v243.2006.42550.
[5]. ASHLEY, P. A. 2003. Ética e Responsabilidade Social nos Negócios. Rio de Janeiro, Saraiva.

[6]. Brasil, MME. (2007) – Balanço Energético Nacional 2007: Ano Base 2006. Rio de
[7]. Janeiro EPE,48p.
[8]. BENJAMIN, A. H. de V. A responsabilidade civil pelo dano ambiental no direito brasileiro e as lições do direito comparado. Rivista di Diritto dell'integrazione e Unificazione del Diritto in Eurasia e in America Latina, Roma, v. 6, p. 113-156, 1998. Disponível em: <https://bdjur.stj.jus.br/jspui/bitstream/2011/8632/A_Responsabilidade_Civil.pdf>. Acesso em: 12 fev. 2022.
[9]. BONAVIDES, P. Curso de Direito Constitucional. 7. ed. São Paulo: Malheiros, 1997.
[10]. BORGES, D. da C. L.; UGA, Maria Alicia Dominguez. Conflitos e impasses da judicialização na obtenção de medicamentos: as decisões de 1ª instância nas ações individuais contra o Estado do Rio de Janeiro, Brasil, em 2005. Cad. Saúde Pública, Rio de Janeiro, v. 26, n. 1, p. 59-69, jan. 2010. Disponível em: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102- 311X2010000100007&lng=en&nrm=iso. Acesso em: 15 fev. 2022.
[11]. CAMPOS, A. C.; LEPNTSINIS, E. 1999. Petróleo: obtenção, especificações e requisitos de
[12]. desempenho. Rio de Janeiro: JR Editora Técnica.
[13]. CANOTILHO, J. J. G.; LEITE, J. R. M. Direito constitucional ambiental brasileiro. São Paulo: Saraiva, 2007.
[14]. CAVALCANTI, C. 1999. Meio Ambiente, Desenvolvimento Sustentável e Políticas
[15]. Públicas. 2.ed. São Paulo: Cortez- Recife: Fundação Joaquim Nabuco.
[16]. CHOI, H. et al. Too Big to Jail? Company Status and Judicial Bias in an Emerging Market. Corporate Governance: An International Review, v. 24, n. 2, p. 85–104, 2016. Disponível em: http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=113444633&lang=pt- br&site=ehost-live. Acesso em: 21 jan. 2022.
[17]. CONSELHO NACIONAL DO MEIO AMBIENTE (Brasil). 1997. Resolução n.º 237, de 19 de dezembro de 1997.
[18]. CONFERÊNCIA DAS NAÇÕES UNIDAS SOBRE MEIO AMBIENTE E
[19]. DESENVOLVIMENTO: A AGENDA 21. 1996. Anais. Brasília: Senado Federal, Subsecretaria de Edições Técnicas.
[20]. CORRÊA, O. L. S. 2003, Noções Sobre Exploração, Perfuração, Produção e
[21]. Microbiologia. Rio de Janeiro: Interciência.
[22]. COTOVICZ JUNIOR, L. C.; SILVA, V. P. da. 2009. Licenciamento ambiental onshore no Rio Grande do Norte: uma análise do descarte da água produzida em relatório de controles ambientais. In: PEGADO, É. A. da C.; SILVA, V. P. da (Org.). Licenciamento ambiental onshore: limites e otimização. Natal: IFRN, p. 89-114.
[23]. CÚNEO, R. G.(2014). Petróleo. Recuperado em 09 Julho 2014 de :
[24]. <http://www.algosobre.com.br/quimica/petroleo.html>.
[25]. DIAMOND, J. M. 2006. Colapso. 4ª Edição. Rio de Janeiro: Record .
[26]. DINIZ, D. et al. A judicialização da saúde no Distrito Federal, Brasil. Ciênc. saúde coletiva, Rio de Janeiro, v. 19, n. 2, p. 591-598, fev. 2014. Disponível em: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1413- 81232014000200591&lng=en&nrm=iso. Acesso em: 15 fev. 2022.
[27]. DIEGUES, A. C. S, 1993. Populações Tradicionais em Unidades de Conservação: O Mito Moderno da Natureza Intocada. São Paulo: USP.
[28]. FARIAS, P. (2003). Nacionalismo e participação popular na campanha "O petróleo é
[29]. Nosso". In: Piquet, R. (Org). Petróleo, royalties e região. Rio de Janeiro: Garamond. p13-38.
[30]. GAZAL-AYAL, O.; SULITZEANU-KENAN, R. Let my people go: ethnic in-group bias in judicial decisions-Evidence from a Randomized Natural Experiment. Journal of Empirical Legal Studies, v.7, p. 403-428. 2010. DOI10.1111/j.1740-1461, 01183.
[31]. GORAYEB, A.; BRANNSTROM, C. Diretrizes para o planejamento socialmente justo com vistas à implantação de parques eólicos no Brasil. In: GORAYEB, Adryane; BRANNSTROM, Christian; MEIRELES, AntonioJeovah de Andrade (Orgs.). Impactos socioam- bientais da implantação dos parques de energia eólica no Bra- sil. Fortaleza: Edições UFC, 2019, p. 25-44.
[32]. IBAMA/MMA, 2003. Diretrizes Técnicas para Modelagem de Derramamento de Óleo no Mar, ANP/IBAMA, Rio de Janeiro.
[33]. IBAMA/MMA, 2003. Guia de Licenciamento para as Atividades de Sísmica Marinha na Costa Brasileira da Quinta Rodada de Licitações, IBAMA, Rio de Janeiro.
[34]. IBAMA/MMA, 2004. Guia de Licenciamento para as Atividades de Sísmica Marinha na Costa Brasileira da Sexta Rodada de Licitações, IBAMA, Rio de Janeiro.
[35]. IBAMA/MMA, 2005. Guia de Licenciamento para as Atividades de Sísmica Marinha na Costa Brasileira da Sétima Rodada de Licitações, IBAMA, Rio de Janeiro.
[36]. FAURE, M. G.; HARTLIEF, T. Compensation funds versus liability and insurance for remedying environmental damage. Review of European, Comparative & International Environmental Law, [S. l.], v. 5, n. 4, p. 321-327, Dec. 1996. Disponível em: <http://onlinelibrary.wiley.com/doi/10.1111/reel.1996.5.issue-4/issuetoc>. Acesso em: 05 fev. 2022.
[37]. FIORILLO, C. A. P. Curso de Direito Ambiental Brasileiro. 10. ed. São Paulo: Saraiva, 2009.
[38]. GOMES, F. de F. C. et al. Acesso aos procedimentos de média e alta complexidade no Sistema Único de Saúde: uma questão de judicialização. Cad. Saúde Pública, Rio de Janeiro, v. 30, n. 1, p. 31-43, jan. 2014. Disponível em: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102- 311X2014000100031&lng=en&nrm=iso. Acesso em: 15 fev. 2022.
[39]. GUIMARÃES, T. M., 2012. Processo H2O2/UV Seguido de Osmose Inversa para Remoção de Carbono Orgânico Dissolvido Residual de Efluente de Refinaria de Petróleo Visando Reúso. 2012. Dissertação (Mestrado em Engenharia Química), Universidade Federal do Rio de Janeiro, Rio de Janeiro.