

ENVIRONMENTAL CIVIL LIABILITY AND ITS EFFECTS ON THE MITIGATION OF DAMAGES CAUSED IN THE LIGHT OF THE EFFECTIVENESS IN THE APPLICATION OF THE PRINCIPLES OF ENVIRONMENTAL LAW IN THE CIVIL CODE OF 2002

doi

https://doi.org/10.56238/arev6n4-094

Submitted on: 11/07/2024 Publication date: 12/07/2024

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ABSTRACT

Today, in spite of the fact that we are facing so many technological advances, in what is conventionally called the "digital age", however, it is inexorably perceived that man has not

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ISSN: 2358-2472

yet advanced as much as he should in terms of respect for nature, because, with the unbridled advance of environmental damage, even so, we understand that it is still possible to stop it and impose on these causes of environmental damage the appropriate legislative mechanisms to put an end to such socio-environmental disorder, To this end, in this brief essay, we brought to light a study on the institute of environmental civil liability contained in the Civil Code of 2022, which came into force one year after the law that instituted it, that is: Law No. 10. 406; whose validity of the aforementioned Codex took place from January 11, 2003, therefore, the institute in question completed 21 (twenty-one) years of validity on January 11, 2024, so that it has been a very useful and effective legal tool to combat excesses against nature caused by human action, mitigating the impacts with the application of the guiding environmental principles and corollaries of national environmental law.

Keywords: Civil liability, Environmental law, Environmental damage, Mitigation, Environmental principles.



INTRODUCTION

At the outset, it is urgent to say that, today, the world is pleased with the most frivolous and fleeting things due to an exaggerated and excessive consumerism, in addition to a disrespect for nature that borders on foolishness, therefore, humanity has been suffering the most diverse consequences due to negative anthropic actions arising from human irrationality, whose price paid for this foolishness to the detriment of nature is really inestimable, since it cannot be measured in real values, beyond the rich repertoire that nature presents to us, as inalienable goods that they are and this reverberates throughout Planet Earth, denoting the lack of zeal and care for this gigantic gift that is Mother Nature.

That said, it is appropriate to make some incursions and/or immersions on the theme that has been chosen as being, in our opinion, one of the most relevant contributions of our Civil Code of 2002, since it is the institute of Civil Liability.

It is good to warn here, that the institute of Civil Liability is not treated only as an indispensable legal instrument to put an end to the wave of destruction that devastates our biomes, our wild fauna, our flora, our soil, our rivers and our springs, as well as the entire collection that nature generously shares with living beings, even more so when you live in a country privileged by the existence of so many natural beauties and by sheltering in its territory the so-called Brazilian Amazon, which is considered the largest free/open forest in the world.

In fact, the institute of Civil Liability helps us in several ways, since its essence lies exactly in the ability to seek the application of the duty to repair the damage that someone has caused to another person.

Therefore, Environmental Civil Liability is objective **"Ex vi legis"** and is restricted to the Obligation Law and for its application in the national legal system it requires the presence of four elements, namely: Conduct; Causal Damage; "Fault" and Causal Nexus.

Later on, we will deal more slowly with Environmental Civil Liability, so that we can become better acquainted with the theme proposed in this article, as a way of bringing to light the peculiarities that involve this important legal-normative instrument and its applicability in Environmental Law here in Brazil.

In the absence of the existence of another institute of law that comes in handy and towards the emergency aid of the causes that involve the destruction of the environment, making it very unbalanced, the institute of Civil Liability proves to be a true ally of those who fight for lasting environmental justice.



It should be said, then, that this institute of Civil Liability must always be used and its normative force must be asserted, even though it is known that it is not so easy to fight against a powerful elite that insists on not ceasing its greed for unbridled profit, even if this implies a high social and environmental cost and, Most of the time, these powerful people leave on the account of Brazilian society an entire environmental liability that sometimes seems impossible to have a reversal of the situation to its "status quo ante."

In fact, this article intends to address, at least through brushstrokes, the issues related to the destruction of our environment and the need to effectively apply the institute of Civil Liability and the principles of Environmental Law as guiding elements so that we have not only for present generations, but also for future generations, an environment that can provide a better quality of life for all. respecting the environment in its most different shades and features and establishing a harmonious and peaceful coexistence with it so that there is a symbiosis between the Man element and the Nature element.

In order to present a more attractive and pleasurable study from an aesthetic and didactic point of view, we took the initiative to elaborate this article with the following systematization: right in the introit we allude to the institute of Civil Liability as a normative instrument made available to Environmental Law, without, however, reporting in more detail its nuances and idiosyncrasies, what was left to be said more slowly "a posteriori"; In a second moment, it was taken care of making a bibliographic review through the theoretical framework used, in order to know how the state of the art is, so that it was possible to make use of the opinions and lessons of renowned scholars of the subject, but also with the aim of promoting a frank and timely intersubjective dialogue with the objective of guiding the various thoughts brought to the fore; in the third section, it was a matter of talking about the general objective of this brief essay; in the fourth section, the methodology that was used to carry out the test is presented; In the fifth section, it refers to the results and discussion and, last but not least, we close this brief study with the final considerations.

That said, it is expected to consciously awaken and interest those who sympathize with the theme chosen here, making it clear, from the outset, that it is only an incipient study but without any demerits for that, since it does not have the slightest intention of exhausting this rich and valuable theme, but that, if at least it arouses the interest of a single reader, it will have already been worth the sweet sacrifice of writing it, given that the intention is to join efforts, in order to seek viable ways to truly achieve a balanced environment, in the exact terms of the content of article 225 of the CF/88.



THEORETICAL FRAMEWORK

Therefore, in this part of the work, the relevance of legal principles in the field of Environmental Law to enforce the institute of Civil Liability in its entirety is highlighted, therefore, in the sequence some of these principles that support issues related to environmental degradation will be addressed.

We then open this didactic path in relation to the polluter pays principle, this principle is not only linked to our legal system, since it is one of the main instruments worldwide to try to curb, for example, the harmful effects in relation to the climate issue on a global scale.

For the Portuguese author (Aragão, 1997, p. 193): the polluter pays principle is a cornerstone of Community environmental policy.

Also according to (Aragão, 1997, p. 146):

the effective internalization of environmental externalities by state intervention comes from a definition (by public authorities) of what can be considered "an acceptable state of the environment"; of measures or instruments created to achieve this acceptable state of the environment and, finally, of the imposition of the cost of the measures and instruments created on polluters.

Therefore, here we are not talking about a principle that is enshrined in domestic law, but that comes from international law, since there are many environmental principles that are contemplated both in declarations and in international conventions on the environment, as we can cite here, for example, the Stockholm Declaration on the Human Environment, which was proclaimed in 1972 and the Rio de Janeiro Declaration on Environment and Development of 1992.

Let's look at the first reference to the polluter pays principle:

The first official reference to the polluter pays principle is noted in Recommendation C (72)128, of the Organization for Economic Cooperation and Development (OECD), of May 28, 1972: "4. The principle to be used for allocating costs of pollution prevention and control measures to encourage rational use of scarce environmental resources and to avoid distortions in international trade and investment is the so-called "Polluter-Pays Principle". This principle means that the polluter should bear the expenses of carrying out the above-mentioned measures decided by public authorities to ensure that the environment is in an acceptable state. In other words, the cost of these measures should be reflected in the cost of goods and services which cause pollution in production and/or consumption. Such measures should not be accompanied by subsidies that would create significant distortions in international trade and investment" (Available at: https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0102. Accessed on 07.02.2023). "The principle to be used to allocate the costs of pollution prevention and control measures to stimulate the rational use of scarce environmental resources and avoid distortions in international trade and investment is the polluter pays principle. This principle means that the polluter must bear the expense of complying with the above-mentioned measures, determined by the



public authorities to ensure that the environment is in an acceptable state. In other words, the cost of these measures must be reflected in the cost of the goods and services responsible for pollution in production and consumption. Such measures should not be accompanied by subsidies that would create significant distortions in international trade and investment."

He cites in his classic work (Aragão, 1997, pp. 109-118):

on the polluter pays principle, several authors associate this principle with the principle of civil liability, but she herself does not share this view, arguing that the PPP aims to precaution and prevent pollution (The polluter pays principle: cornerstone of Community environmental policy. *Bulletin of the Faculty of Law – University of Coimbra*, pp. 109-118).

For (Rodrigues, 2005, p. 197):

The polluter pays principle is not a passport to pollution, "it is enough to present a purchase visa (internalization of the cost) to then have the right to pollute." In the same vein, he helps us (Wold, 2003, p. 24) when he says that: it is possible "to incorporate into the prices of goods and services the additional costs of prevention, mitigation and compensation of the negative impacts of economic activity."

In Brazil, we have as main normative diplomas the Federal Constitution of October 5, 1988 and the National Environmental Policy Law, which is Federal Law No. 6. 938/1981, this is just to mention the main normative instruments that are aimed at and that are in line with the purpose of safeguarding the ecological balance directly and indirectly, as they have the power to seek to promote a better quality of life and, therefore, respect for the dignity of the human person.

Therefore, the main function of the polluter pays principle stands out, which has the noble role of reinforcing and reiterating maximum environmental protection, which, in turn, is determined by the environmental principles of protection and precaution and by the principle of reparation/responsibility.

Thus, seeking to fairly implement the distribution of the burden of prevention and reparation of environmental damage caused by economic agents, economic partners and consumers, through a system of internalization of environmental externalities, whose purpose is to transfer the costs of the pollution caused to these responsible causes of environmental destruction, being a way for the State and Society to impute the losses to these direct and indirect responsible parties caused in the face of harmful and polluting activity.



Although the spirit of the law is full of good intentions towards the environment, the same thought does not apply to those who take from the environment what is best in it, which is its essence of nature, so that we must always be alert to these actions that aim only at the enrichment without any commitments to the environment, Therefore, it is a measure that imposes the responsibility of those who cause these damages to nature.

Although the Federal Constitution of October 5, 1988 encompasses as a fundamental and diffuse right in relation to the ecologically balanced environment, as can be inferred from the provision of article 225 of the CF/88, this in itself does not eliminate the harmful and harmful conducts that do so much harm to the community.

CF/88 in its article 170, VI, combined with article 225 also of CF/88 and in accordance with the principle of sustainable development, require that potentially polluting economic activities be accompanied by measures that must be adopted in order to eliminate or reduce this degrading potential, so that they can prevent environmental damage.

And for this desire of the law to materialize, it is necessary to adopt effective and effective measures, as well as technical and/or technological procedures that have the power to prevent or even mitigate the effects of these negative impacts peculiar to these human activities.

So, in this new scenario the principle of prevention comes in, thus, if the project is not successful, that is, on the occasion of a possible failure of the prevention raised, it is imperative to adopt a more effective instrument of civil liability and reparation of the damage caused, which can bring or restore the environmental quality previously found, or even, if this is not possible, that the harm caused be repaired and compensated with the due assumption of the damage, at which time the principle of reparation or liability must be applied.

Although some legal scholars restrict the application of the polluter pays principle as a mechanism for civil liability and/or to the prevention and control of damage, we are of the opinion that it brings together and couples the two sides of the same coin, since both negative environmental externalities must be observed, with regard to the potential damage that is intended to be avoided; and with regard to the concrete damage to be remedied or purged for the sake of nature.

However, it is important to say that we should not confuse the polluter pays principle with the principles of precaution, prevention, much less with the principle of reparation or



responsibility, although, as we have said elsewhere, they carry within them a relationship of great proximity and similarity.

In such a way, that it is the role of the potentially polluting enterprise to take into account both the costs of prevention and the costs of repair, and cannot be exempt from them under any circumstances, under penalty of making a dead letter of the law an instrument of great utility to mitigate the impacts caused by harmful practices that degrade the environment so much, which is the polluter pays principle.

However, it is necessary to pay close attention to the content of the fallacious and ghastly discourse of potential degraders, given that their greed for profit often leads them to the condition of economic actors to raise a flag at half-mast, in other words, we want to say that they contest the way the polluter pays principle is directed to them, under the flimsy argument that their activities are only aimed at meeting the demands of consumers, but they forget that the risks of the enterprise are the exclusive responsibility of those whose business is industries and companies, which, not infrequently, are to a large extent the great promoters of environmental degradation and immeasurable environmental disasters, here in Brazil we have several practical examples of this.

On the other hand, we have the principle of sustainable development, which aims to establish a balance in terms of actions aimed at developing and improving the quality of life of all actors involved and protecting this legacy for the enjoyment of present and future generations.

However, this right to an ecologically balanced environment is not always respected, on the contrary, we constantly see the evolution of a process of unlimited destruction, which lasts and gravitates around the economic interests of large industries/companies that always seek the greed for profit to the detriment of nature.

Commonly, there is talk of the tripod of sustainability, which is composed of three principles, namely: social, environmental and economic, but it is necessary to understand that these principles need to be integrated so that there is a symmetry between them and in fact sustainability happens in practice.

However, human actions are the ones that cause the most damage to nature, we brought as an example the issue of water resources that are fundamental for the socioeconomic development of a region or even a country.

They teach (ARAÚJO, L. S; SANTOS, J. R. S.; CUNHA FILHO, M.; STOSIC, B. D.; STOSIC, T. 2015, Rev. Bras. Biom. São Paulo, v.33, n.3, p.403-413):



The sustainable use of water resources and their conservation is one of the main challenges of the twenty-first century, in the search for the economic and social development of a region. These features are influenced by various natural and anthropogenic factors and typically represent complex systems characterized by a large number of components that interact non-linearly at one scale and produce emergent properties at another scale.

In the words of (SANTOS, E. J. 2015, p. 6):

Sustainability is a set of effective measures and actions that aim to promote the common well-being, with regard to the realization of the environmental, cultural, economic, ethical, holistic, political and social dimensions, whether alone or jointly.

Also according to (SANTOS, E. J. 2015, p. 6): Apology for Sustainable Development – (A dream that can be fulfilled):

We need economic growth, which is part of progress and this is undeniable, but not anachronistic growth, contrary to sustainable development. It is essential that there is planning. Recognizing the finiteness of natural resources and with environmental responsibility, always be attentive... So that we do not cause environmental damage. There must be harmony between man and nature, respect for life in its various facets, for this to occur one thing I am sure of, a holistic view among many other recipes is needed. The dream of a better world for all generations, which meets the needs of all human beings, necessarily passes through several conceptions... With prominent positions occupied in our plans. It must be said that it is vitally important to ensure quality of life in a more humane way, without harming nature and educating from childhood, is a way to avoid insane unconsciousness. The ecologically balanced environment is a dream that can be effectively achieved, In the 3rd Dimension of Human Rights it was housed, therefore, it is a right that I consider sacred! (SANTOS, 2015, p.6).

The principle of popular participation in relation to protection actions aimed at the environment, in our opinion, has a relationship of the most absolute importance for the improvement of the mechanisms made available to social actors, as well as to environmental protection, preservation and environmental inspection agencies.

It cannot be denied that the participation of citizens in actions and decision-making related to environmental issues is essential for us to have environmental protection legitimately safeguarded.

The so-called popular participation as an environmental principle, more than a pressing need, stems from a requirement of the Democratic Rule of Law itself.

In this sense, the Magna Carta of 1988, in the context of its article 225, ended up not conceptualizing what the environment is, but was concerned with establishing the normative parameters, as well as its necessary principles, in order to guarantee the legal good protected in the domestic legal order.



However, both the ordinary legislator and the scholars, the scholars, have been in charge of conceptualizing what the environment would be as provided for in the Federal Law of National Environmental Policy (BRASIL, 1981) and it is these scholars who take care of the theme, such as Guimarães (2015, p. 31); Milaré (2011, p. 143); Benatti (2013, p. 247); Fiorillo (2013, p. 60).

In this sense, our Federal Constitution of 1988 in its article 225 wisely did not define what the environment is, bringing, however, norms and principles necessary to guarantee the protected legal good, leaving the task of conceptualization to the infra-constitutional legislator, as provided for in the National Environmental Policy Law (BRASIL, 1981), and to the care of theorists who study the subject, just to name a few of them: Guimarães (2015, p. 31); Milaré (2011, p. 143); Benatti (2013, p. 247); Fiorillo (2013, p. 60).

Thus, it is inferred through an analysis of what the natural environment is, that there is the possibility of concluding that there is in fact an inseparability in the relationship between man and the environment, therefore, hence the need for popular participation regarding environmental decision-making, whose purpose is preservation, the maintenance and social and environmental development in a healthy and balanced way, valuing the lives of present and future generations in favor of a better world for the entire human family.

GENERAL OBJECTIVE

The main objective of this article is to foster discussion and debate, in the best sense of the term, regarding this valuable institute of Environmental Civil Liability brought to light in the context of the Brazilian Civil Code of 2002, as well as the principles of environmental law and their applicability in the field of Brazilian Environmental Law as potential mitigators of environmental damage.

METHODOLOGY

The methodology used was the bibliographic review, drawing a parallel with the theories of classical thinkers and abstracting from them what is understood as the contributions of agroecology to a fairer, more equitable society, thus believing that it is possible to find in agroecology the contributions that we need so much, such as autonomy to achieve food security, cooperation through a solidarity economy and the quality of life arising from a healthier and more equitable production. environmentally friendly.



According to Bastos (2006):

[...] Bibliographic research allows the researcher to comparatively analyze various positions on the same subject and hence the main advantage of this type of research, which is that it enables the researcher to encompass the theme in a slightly broader way than what would be possible in field research (BASTOS, 2006, p. 32).

As GIL (2007) teaches us about the use of exploratory research:

Exploratory research often constitutes the first stage of a broader investigation. When the chosen theme is quite generic, it becomes necessary to clarify and delimit it, which requires literature review, discussion with specialists and other procedures. The final product of this process becomes a more clarified problem, subject to investigation throughmore systematized processes (GIL, 2007, p. 72 - 73). For the elaboration of this article, primary and secondary sources were used, in order to strengthen the data collection, which were essentially processed through indirect documentation, however, the use of direct documentation was not neglected as well.

The scholar Eva Maria Lakatos guides us in the direction that indirect documentation:

It uses sources collected by other people, which may consist of material that has already been prepared or not, and is divided into documentary research and bibliographic research, which differs from direct documentation, as the latter collects data in the very place where the phenomena occur (LAKATOS, 2001, p. 43).

Therefore, it is understood that the methodology used to carry out this study met the purposes presented herein, satisfactorily fulfilling and helping to elucidate the object of study, as well as meeting the rigors of the guiding principles of academic work, which must have the necessary scientific rigor to achieve the credibility that is sought to be obtained with the purpose of shedding light on the chosen theme.

RESULTS AND DISCUSSION

This article presents a theoretical and epistemological discussion and has as its theoretical basis the survey of information only of a bibliographic nature, that is, based on a literature review in order to support this brief essay, therefore, it is not a more in-depth research, whose results can be measured here.

Even for reasons of limiting issues, both from the point of view of the need to spend adequate time, and the use of the necessary and useful tools to focus on the chosen



ISSN: 2358-2472

theme, which certainly deserves a sharper look and a much more meticulous and detailed study with the use of a qualitative and quantitative analysis.

We believe that in due course we will revolve and delve into this instigating theme and make a more complete study because it is a legal institute of great relevance to give greater effectiveness to the legal rule.

FINAL CONSIDERATIONS

By way of final considerations, it is good to recognize the relevance of discussing a topic of such great scope and recognized socio-environmental interest, which has been so dear to the environment, which is the issue of repairing the environmental damage caused by anthropic actions, either directly due to the lack of zeal and care for nature, or by vested interests of the most diverse kinds.

This article, for obvious reasons, did not finish the theme presented, nor was that the real intention, to be honest, however, it is hoped that at least it has managed to arouse even more the interest of those who sympathize with this theme.

The object of study here is the result of a tribute to the 22 years of existence of the Brazilian Civil Code that brought to the legal world this important normative instrument of environmental protection.

In fact, it is also worth emphasizing that civil liability for environmental damage is disciplined in what is recommended by the content of article 14, § 1 of Federal Law No. 6. 938/81 and it is an objective liability, that is, it does not require proof of the polluter's guilt and for its characterization to occur, it is enough to prove the harmful event, the harmful conduct and the causal link between the damage and the conduct of the polluter.



REFERENCES

- 1. Aragão, M. A. de S. (1997). O princípio do poluidor-pagador: Pedra angular da política comunitária do ambiente. Boletim da Faculdade de Direito Universidade de Coimbra, Coimbra: Coimbra Editora.
- 2. Araújo, L. S., Filho, M. C., Stosic, B., & Stosic, T. (2014). Avaliação do impacto humano na dinâmica das variáveis hidrológicas da bacia do rio Piracicaba através da análise multifractal. Revista Brasileira de Biometria, 32(1), 170-179.
- 3. Araújo, L. S., Santos, J. R. S., Cunha Filho, M., Stosic, B. D., & Stosic, T. (2015). Evaluation of the influence of Cantareira System on the Piracicaba river basin, using complexity analysis. Revista Brasileira de Biom, 33(3), 403-413.
- 4. Bastos, N. M. G. (2007). Introdução à metodologia do trabalho acadêmico. Nacional.
- 5. Benatti, J. H. (2013). Conceitos legais do art. 3º, da Lei 6.938-81. CESUPA. [Capítulo].
- 6. Brasil. (1981). Lei da Política Nacional do Meio Ambiente (Lei 6938). Retrieved from http://www.planalto.gov.br/legislacao
- 7. Brasil. (1988). Constituição da República Federativa do Brasil. Retrieved from http://www.planalto.gov.br/legislação
- 8. Fiorillo, C. A. P. (2013). Curso de direito ambiental brasileiro. Saraiva.
- 9. Gil, A. C. (2007). Métodos e técnicas de pesquisa social. Atlas.
- 10. Guimarães, M. (2015). A dimensão ambiental na educação. Editora Papirus.
- 11. Lakatos, E. M., & Marconi, M. de A. (2001). Metodologia do trabalho científico (6ª ed.). Editora Atlas S.A.
- 12. Milaré, É. (2011). Direito do ambiente. Editora Revista dos Tribunais.
- 13. Moreira, D. de A. (2015). Responsabilidade ambiental pós-consumo. Letras Jurídicas.
- 14. Rodrigues, M. A. (2005). Elementos de direito ambiental (2ª ed.). Revista dos Tribunais.
- 15. Santos, E. J. (2015). Dissertação: Desenvolvimento socioambiental no município de Paulista Pernambuco: Uma avaliação dos programas de qualidade de vida. FCAP/UPE.
- 16. Wold, C., Sampaio, J. A. L., & Nardy, A. (2003). Princípios de direito ambiental na dimensão internacional e comparada. Del Rey.