

## THE ENVIRONMENTAL FUNCTION OF FOREST PROPERTY: BRAZIL AND GERMANY

### *A FUNÇÃO AMBIENTAL DA PROPRIEDADE FLORESTAL: BRASIL E ALEMANHA*

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#### **Abstract**

The article analyzes the effects of the environmental function of forest property in Brazil, based on recent decisions by the Superior Court of Justice on the delimitation of property content and the appropriateness of compensation referring to restrictions on the use of protected forest areas. The aim is to demonstrate that there was a significant redefinition of the dogmatic institute of indirect expropriation and a strong conditioning of the owners' right to compensation. The jurisprudential and doctrinal bases of the social and environmental function of real estate in Germany are also discussed, in the context of forest protection and conservation, in order to compare the feasibility and coherence of the solutions adopted in the two countries. The research makes use of bibliographical and documentary survey, based on theoretical models, normative provisions and court-judged cases. It is concluded that the

#### **Resumo**

*O artigo analisa os efeitos da função ambiental da propriedade florestal no Brasil, com base nas recentes decisões do Superior Tribunal de Justiça sobre a delimitação do conteúdo da propriedade e o cabimento de indenizações referentes às restrições de uso de áreas florestais protegidas. O objetivo é demonstrar que houve uma significativa redefinição do instituto dogmático da desapropriação indireta e um forte condicionamento do direito à indenização dos proprietários. São discutidas também as bases jurisprudenciais e doutrinárias da função social e ambiental da propriedade imobiliária na Alemanha, no contexto da proteção e conservação das florestas, com o fim de comparar a viabilidade e a coerência das soluções adotadas nos dois países. A pesquisa vale-se do levantamento bibliográfico e documental, com base em modelos teóricos, disposições normativas e casos julgados pelos tribunais. Conclui-se que o sistema jurídico nacional de proteção das florestas já avançou bastante, mas ainda*



national legal system of forest protection has already advanced a lot, but it still needs to improve its instrumental framework, including on the basis of other legal systems' experiences.

**Keywords:** comparison Brazil × Germany; ecological judicial governance; environmental function of property; forest protection; indirect expropriation.

*deve aperfeiçoar o arcabouço instrumental, inclusive na base das experiências de outros ordenamentos jurídicos.*

**Palavras-chave:** comparação Brasil × Alemanha; desapropriação indireta; função ambiental da propriedade; governança judicial ecológica; proteção florestal.

## Introduction

The Brazilian Judiciary, although exercising a subsidiary and reviewing function in relation to the other powers' actions and omissions, has increasingly assumed the leading role in safeguarding the legal regime of environmental protection – what has been called *ecological judicial governance*. There are contents protected by the legal order, at the constitutional and ordinary law levels, which are no longer subject to the political and administrative decisions of the different government bodies at the three federal levels.

This ecological governance by the courts is legitimized by the guarantee of the inalienable jurisdictional control of any injury or threat of injury to law, as provided for in the Federal Constitution. Although there have been strong controversies about the legitimacy of judicial intervention in the sphere of public policies and the control of the acts of other state bodies, including in terms of environmental protection, the country's doctrine and jurisprudence, for the most part, came to defend a activist role of the courts in several aspects.

The objective of this article is to demonstrate how the internal delimitation of the content of forest property, carried out mainly by the Superior Court of Justice (STJ), based on its environmental function, has led to a complete redefinition of the controversial dogmatic institute of indirect expropriation and to the conditioning of the right compensation for property owners affected by protective state measures.

The nature of the research can be considered *qualitative* and *descriptive*, anchored in the deductive method and in the bibliographical and documentary survey, with support in theoretical models and environmental normative fundamentals.

In this line, the article will establish the necessary distinction between the legal measures of *delimitation* of the forest property, based on the environmental function of property, and the administrative *restrictions* that may give rise to the state's obligation to compensate. This differentiation is relevant, since, until the present day, many legal operators confuse the two concepts. Regarding compensation, there must be a clear distinction between the institute of *indirect expropriation*, which, in practice, is of little relevance in the context of forest protection, and measures with an *effect equivalent to an expropriation*, a dogmatic figure that still needs to be discussed in more depth.

The comparison of the Brazilian system of forest protection with the German one intends to arrive at constructive conclusions that lead to a better understanding of the problems in this scope and that provide elements for the progress of the discussion. Comparative Law, in its *functionalist* aspect, aims to search for similarities between different legal systems, assuming that there are functional similarities that allow comparison between them, including judicial decisions and legal literature in the comparative process.

It will be demonstrated that the challenges faced by the two legal-administrative systems are similar, even if they start from historical, socioeconomic, cultural and political assumptions that are quite different, although not incommensurable. Both are facing the challenge of a more efficient legal and administrative protection of their forest areas, in order to fulfill duties established in the Constitution itself and in international conventions on the matter.

It is obvious that the strategies to overcome the problems will have to be different, even though there are valid points for a fertile comparison between institutions and legal instruments such as real estate property, its social and environmental function, the delimitation of its content and limits, direct and indirect expropriation, as well as the payment of indemnities and compensation for environmental protection measures. In this sense, there will be proper *contextualization*, far from little-reflected imports of institutes or doctrines of the Germanic system.

## 1 The types of forest areas protected by Brazilian legislation

According to the Brazilian Forest Code – Law no. 12.651/12 (BRASIL, 2012a) –, the permanent preservation area (PPA) is that covered by native vegetation, “the environmental function of preserving water resources, landscape, geological stability, and biodiversity, facilitating the gene flow of fauna and flora,

protecting the soil, and ensuring the well-being of human populations” (art. 3, II). The vegetation located in a PPA “must be maintained by the owner, possessor, or occupant of the area, in any capacity, individual or legal entity, governed by public or private law” (art. 7).

In art. 4, the legal text defines as PPA, in rural or urban areas, the marginal bands of any perennial and intermittent natural watercourse; the size of the protected area depends on the width of the respective water body. PPAs are also the areas surrounding natural lakes and ponds, artificial water reservoirs, springs and perennial waterholes, sandbanks, mangroves, certain areas in paths, slopes (>45°), edges of tablelands or plateaus, areas at the top of hills, mountains and mountain ranges (>100 m) and at altitudes greater than 1,800 m<sup>1</sup>.

The rules of art. 4 are self-applicable to the reality throughout the country and do not depend on a declaration by the Public Power. In addition, art. 6 provides for another category of PPA that can be instituted by an act of the Chief Executive, if the area fits one of the hypotheses provided for in the legal text. On the other hand, the suppression (partial or total) of native vegetation in PPA can only occur in the cases of public utility, social interest or low environmental impact (art. 8), concepts that are defined in detail by art. 3 (VIII-X).

The second protection unit of the Forest Code is the “legal reserve” (LR), which must maintain an area with native vegetation by the property’s owner or possessor and whose concrete definition of the limits always depends on an administrative act. It is an area covered with native vegetation, located on a property or rural possession, with the function of ensuring the sustainable economic use of natural resources, conserving biodiversity and sheltering wild fauna and native flora (arts. 3, III, and 12 of Law 12.651/12).

The minimum percentages of LR in relation to the property area vary in the Legal Amazon between 80% (forest area) and 20% (*campos gerais* areas). In the other regions of the country, the LR is 20% of the total area of rural property; in case of fractionation of this, the area prior to the act will be considered. The concrete size of the LR can be reduced or enlarged, according to the respective state Ecological-Economic Zoning (ZEE). The location of the LR can only be approved after the property has been included in the Rural Environmental Register (CAR), and The change in its destination, in cases of transmission, in

any capacity, or dismemberment is prohibited. Its economic exploitation is

<sup>1</sup> Then, the Law lists some hypotheses for possible authorization of the planting of temporary and seasonal crops in small family rural property or possession, in addition to the practice of aquaculture in rural real estate with up to 15 fiscal modules (art. 4, § 5-6).

only possible upon presentation of a sustainable management plan (art. 15, § 1).

In addition, a forest area can be classified by the Government in one of the types of protected area provided for in the Law of Conservation Units, no. 9,985/00 (BRAZIL). This differentiates between full protection units, which always require expropriation of the area and full compensation for the value of the property (e.g. national park), and sustainable use units, which oblige the federative entity that authored the measure to pay compensation only in exceptional situations (e.g. Environmental Protection Area – EPA).

Finally, there are countless rural and urban properties that are totally or partially covered by vegetation typical of the Atlantic Forest biome; this enjoys special protection established at the level of the Major Law (art. 225, § 4) and ordinary law no. 11,428/06 (BRASIL, 2006). Especially the basic legal rules referring to the PPA and the LR were widely implemented in the different instances of the Brazilian Judiciary, with emphasis on the STJ, as will be seen below.

## **2 The outstanding performance of the STJ in defining and restricting private property in the context of forest protection**

In order to change the idea of an absolute right to private property in Brazil, some decisions of the Federal Supreme Court – STF (BRASIL, 1995 and 2005) were important, in which the relevance of the fundamental right to a balanced environment and the constitutional nature of the principle of sustainable development was highlighted.

The criteria set out in these judgments, however, have not yet led to firmer jurisprudential lines by the country's courts in relation to the matter. In general, “the formula for broadening the interpretation of the social function of property proved to be insufficient, in both the doctrinal and jurisprudential fields, to change “an entire paradigm of unsustainable exploitation of natural resources” (Benjamin, 2007, p. 72).

At the same time, doctrine and jurisprudence have hardly deepened the theoretical aspects regarding the distinction between the various elements of property rights. There is a tendency to transform all acts that determine the content and limits of property into expropriations, with the consequence of due compensation for properties, which has made countless measures to protect natural resources by States and municipalities unfeasible. The more objective dogmatic deepening of the issue by the doctrine was only achieved from the STJ's decisions on the subject.

Since the beginning of the 21st century, it has developed a robust and comprehensive jurisprudence on various topics related to environmental protection. The Court's judgments on this subject, which stand out for their "original and sophisticated theoretical articulation", currently have "a marked presence in the daily judicial practice of Brazilian litigation" and, without a doubt, put "the STJ at the forefront of the most progressive, technical and numerous environmental jurisprudence in the world" (BENJAMIN, 2015, p. 19).

The STJ ranks second in the hierarchy of the Brazilian Judiciary, and it is the body responsible for judging, in special appeal, the cases decided, in sole or last instance, by the Federal Regional Courts or by the state's Courts of Justice, when the contested decision, according to art. 105, III, *a* and *c* of the CRFB, "contradicts a treaty or federal law, or denying them validity", or when it "gives the federal law an interpretation that differs from that assigned to it by another court" (BRASIL, 1988).

Thus, the vast majority of STJ's decisions on cases related to the environmental protection issue are taken on special appeals (REsp). In terms of protecting forests and nature, the most significant decisions refer to the two main categories of areas protected by the Forest Code. Some people understand that, based on the STJ's decisions, an environmental protection system is being built, "equipped with specific hermeneutic instruments, suitable for its purpose, which has renewed the science of law" (MATIAS; MATTEI, 2014, p. 232).

Undoubtedly, there is a marked influence of the STJ jurisprudence in its role as a precedent in environmental matters for the state courts, even due to the collection *Jurisprudência em Teses*, which has pacified the discussion on several thematic items in the scope of environmental and natural resources protection<sup>2</sup>.

After judging that the PPAs of the Forest Code, in principle, are not subject to compensation, as they are not susceptible to economic exploitation, the STJ came to understand that the responsibility for the owner's restoration of an ecologically degraded land does not depend on their personal fault because it constitutes an objective civil obligation (*propter rem*) (BRASIL, 2002).

Along these lines, the Court modeled the exercise of the right to property in the light of the fundamental duty of environmental protection (art. 225 of the CRFB), making the social-objective perspective prevail over the individual-subjective one and contradicting the tendency of a certain disregard of the members

2 Since 2014, the publication *Jurisprudência em Teses*, edited by the STJ Secretariat, presents the Court's understandings on relevant topics in various branches of law. Editions no. 30 (2015) and no. 119 (2019) deal with "Environmental Law" and "Liability for environmental damage" (cf. LEITE; VENÂNCIO, 2017, p. 41ss.).

of the Brazilian Judiciary for environmental protection, who, in most cases involving ecological and urban defense issue, to this day tend to give preference to private interests (cf. Sarlet; Fensterseifer, 2008).

Other important steps in the body's jurisprudence in the area of Environmental Law were the reversal of the burden of proof in public civil actions in defense of the environment (BRASIL, 2010b), the confirmation of objective and solidary civil liability (BRASIL, 2015a), as well as the affirmation of an "environmental existential minimum" in the scope of basic sanitation, which allows judicial review of the public entities' discretion to carry out works for the disposal and treatment of domestic sewage, final deposit of solid waste, etc. (BRASIL, 2014).

More recently, the STJ (BRASIL, 2021) understood that the band not buildable in the PPAs off water in consolidated urban areas must always respect the distances defined by art. 4, I, *a-e*, of the Forest Code, rejecting the thesis of the prevalence of the Urban Land Subdivision Law standard (BRASIL, 1979), which provides for a non-buildable band of 15 meters (art. 4, III-A), or local urban norms on the subject.

With this decision, the Court continued its firm jurisprudential action in favor of the environment and natural resources through the coherent interpretation of the respective legal provisions, always guided by the rules and principles of the texts of the Constitution and international conventions on the subject, resisting various pressures exerted by representatives of economic and political interests.

### 3 The environmental function of property: a plus in relation to its social function

The concept of *environmental* (or *ecological*) function<sup>3</sup> of property emerged in Brazil with more emphasis on jurisprudence and legal doctrine when the position was consolidated that this specific function could no longer be framed in the old institute of the social function of private and public property, nor in the hybrid expression socio-environmental function (BELCHIOR, 2009).

This new concept of the legal regime of property has its basis in art. 225 of the CRFB, which assigns the duty to protect the environment also to individuals, which results in the delimitation and conformation of the content of the right to property (and possession) (FENSTERSEIFER; SARLET, 2019). In addition, art.

<sup>3</sup> There are those who differentiate between the *environmental function* (the relationship between human beings and their environment) and the *ecological function* (the functioning of ecosystems); anyway, the functions are closely interconnected (cf. CARVALHO, 2020, p. 30s.; MILARÉ, 2015, p. 1311).

170 of the CRFB establishes as one of the principles of the country's economic order, alongside the social function of property (III), the "defense of the environment" (VI)<sup>4</sup>.

The content of art. 1,228, § 1, of the new Civil Code (2002) made it even clearer that the owner's command over the assets that make up their heritage is no longer absolute and intangible, but relativized by its environmental function, since it obliges to preserve the flora and fauna, natural beauties, ecological balance and historical and artistic heritage, as well as avoiding air and water pollution.

This is an inherent duty that is part of the very content of the right to property. This change also influenced Brazilian Administrative Law, opening up greater spaces for defining the concrete limits of the concept of property in different areas. The alteration had concrete effects for the use of urban and rural properties, in addition to the issue of compensation for the respective owners. However, as it happens in the scope of social function, the environmental function of property is not capable of completely nullifying its individual character. In the event of a clash, expropriation must be considered the *ultima ratio*, in order to reconcile individual interests with ecological ones (CARVALHO, 2018).

While the classic social function has its effects in relation to private property, the environmental function also conditions public property, transcending the dichotomy between public and private, as a genuine expression of the fundamental right to a balanced environment and the respective duties of the State and of the community (art. 225, *caput*, of the CRFB) (CARVALHO, 2018).

The text of Law no. 12,651/12 (art. 3, II, III), referring to the PPAs and the LR, makes express reference to the environmental function of these protected vegetation, even as a justifying element for the imposition of administrative limitations on the right to property, which, according to the STJ's interpretation (BRASIL, 2010a and 2012b), do not generate the owner's right to compensation.

It should be noted, however, that the STF (BRASIL, 2015b) understands that compensation for the economic value of forest products existing on land located in PPAs is also due, despite the administrative limitations imposed by the Forest Code and by pre-existing state and municipal protective legislation. Without discussing the concrete effects of the ecological function of ownership of these properties, the STF limits itself to stating that "the area of vegetation cover subject to legal limitation and, consequently, to the prohibition of extractive activity does not eliminate the economic value of protected forests".

<sup>4</sup> Since Constitutional Amendment no. 42/2003, the content of the item is: "VI – defense of the environment, including through differentiated treatment according to the environmental impact of products and services and their preparation and provision processes".



However, it is worth mentioning that the substrate of this jurisprudential line is formed by cases in which there was formal expropriation of private land for the creation of *full protection conservation units* (State Park, Ecological Station), for the installation of which the Law itself (9.985/00) demands the expropriation of private areas, with payment of fair compensation. It is perfectly defensible that the existing PPAs in these expropriated areas should also be included in the compensation calculation, since they are part of the total economic value of the property.

Different is the treatment of existing administrative limitations in PPAs and legal reserves, which impose restrictions on the use and economic utilization of these properties, conditioned by their environmental function, referring to which compensation is not due. This applies only in cases where there is “an administrative limitation that is more extensive than those already existing in the area, and also concrete damage resulting from the impossibility of economic exploitation of the property” (LIMA; BACELLAR, 2016, p. 155). For this reason, the aforementioned jurisprudence of the STF on the subject, strictly speaking, only partially reaches the position developed by the STJ on the environmental function of protected forest areas.

In addition to the forest sphere, in which it had its most significant expression, the expansion of the environmental function of real estate property had effects in relation to all protected natural spaces, such as the conservation units regulated by Law no. 9,985/00.

Thus, it is no longer appropriate to speak, nowadays, of expropriation (direct or indirect) within the scope of the internal limits of the forest real estate property, “since an inseparable burden of the property does not have the gift of being, at the same time, its element and a dispossessing intervention”, and it is not possible to “compensate for the denial (= dispossession) of a right that one does not have”, since the “internal participants pose themselves as *a priori* conditioners of the right to property” (BENJAMIN, 1998, p. 68).

Once the notion of private property, which suffers restrictions imposed by Environmental Law, has been surpassed, it is perceived that its own content is *functionalized* by the environment (BENJAMIN, 1993; CAMPOS JR., 2004).

#### 4 Strict civil liability of the owner of a protected forest area

It is clear that the purchaser of a property cannot be punished in the administrative and criminal spheres for facts that preceded their possession or ownership of the property. The situation of civil liability is different, which continues to be

objective in the face of the new owner of the property, regardless of their good faith.

Therefore, whoever acquires a property with some degradation, apparent or not, assumes the obligation for its environmental liabilities and must recover the degraded area, including in cases of illegal deposit of garbage or other waste on the ground. In this regard, the STJ's jurisprudence adopted the theory of full risk: once the causal link between the fact and the agent is established, it will be difficult to recognize a cause for exclusion of responsibility.

The usual invocation of third party liability, acts of God or force majeure is only accepted by jurisprudence in exceptional situations. This means that, "for the purpose of determining the causal link in the environmental damage, those who do, who do not do when they should, who let it be done, who do not mind that they do, who finances for it to be done, and who benefits when others do are on a par (BRASIL, 2007c, Ementa n.13).

Furthermore, the STJ made it clear that "there is no acquired right to pollute or degrade the environment", since "time is incapable of curing environmental illegalities of a permanent nature, since part of the protected subjects – future generations – lacks voice and representatives who speak or remain silent on its behalf". In the forest sphere, "decades of illicit use of rural property do not provide a safe-conduct for the owner or squatter to continue prohibited acts or make legal practices prohibited by the legislator". Protected areas (PPA and LR) "are justified where there is remaining native vegetation, but even more so where, as a result of illegal deforestation, the local flora no longer exists, although it should exist" (BRASIL, 2007b, Ementa n. 4).

Therefore, when acquiring an area, "the new owner assumes the burden of maintaining preservation, becoming responsible for replacing it, even if it has not contributed to deforestation" (BRASIL, 2007a). The duties associated with the PPAs and the LR have the nature of a *propter rem* obligation, that is, they adhere to the title of domain or possession, being "unreasonable to inquire who caused the environmental damage *in casu*, whether the current owner or the previous ones, or the guilt of who did or did not do it" (BRASIL, 2007b, Summary n. 6).

The Court also understood that "those who deforest, occupy, explore or prevent the regeneration of PPAs cause unequivocal ecological damage, giving rise to the *propter rem* obligation to fully restore and indemnify the degraded environment and affected third parties, under the objective civil liability regime"<sup>5</sup>.

Based on these STJ decisions, the Brazilian environmental legislation has

5 Thus, Thesis no. 2 on Liability for Environmental Damage, in vol. 119 of the *Jurisprudência em Teses* of the STJ (2019), based on AgInt decisions in REsp. no. 1,545,177-PR (2018) and REsp no. 1,454,281-MG (2016).

expressly enshrined the dominion nature of environmental civil liability. The 2012 Forest Code, on the other hand, when dealing with the legal regime of forest property and possession, adopted the understanding previously formulated by the STJ, expressly establishing that “the obligations foreseen in the forest legislation are *real* and are transmitted to the successor, of any nature, in the case of transfer of ownership or possession of rural property” (art. 2, § 2).

In relation to PPAs, the Law prescribes that, in the event that vegetation located in these areas has been suppressed, “the owner of the area, possessor or occupant in any capacity, is obliged to promote the restoration of the vegetation [...]”, and this obligation is real as “it is transmitted to the successor in the case of transfer of ownership or possession of the rural property” (art. 7, §§ 1-2).

### 5 Expropriation (direct and indirect) and compensation for *measures with effects equivalent to the expropriation of forest-covered areas*

The normative basis of expropriation measures in Brazil is formed, until the present day, by Decree-Law no. 3.356/41 (BRASIL, 1941) and by Law no. 4.132/62 (BRASIL, 1962), which are supported by art. 5, XXIV, of the CRFB. This provides for “expropriation for public necessity or utility, or for social interest, upon fair and prior compensation in cash [...]” (BRASIL, 1988)<sup>6</sup>.

In general, Brazilian courts have had great difficulties in setting the monetary value of damages for expropriation. The Government “has been judicially condemned to pay huge sums to the owners of properties located in protected areas”, which “absurdly exceeded real estate market values” (FIGUEIREDO, 2008, p. 282s.), through the figures of indirect expropriation and administrative takeover.

A legal institute that is still frequently mentioned in the context of protective measures in forest areas is *indirect expropriation*, which entails the duty of full compensation and requires, for its configuration, the dispossession of the property without the due legal process and the irreversible physical loss of possession (dispossession) for the State, which must occupy the area. It is an instrument created by the courts, initially, to oblige the Government to compensate for acts of illegal possession of private properties, without due process of law. Then, its use was unduly extended to cases of creation of conservation units in areas that included private properties, based on an outdated individualistic concept of property.

Thus, the hypothesis of indirect expropriation also framed situations in

<sup>6</sup> In addition, there is expropriation as an urban sanction (art. 182, § 4, III, of the CRFB) and for land reform purposes (art. 184 of the CRFB).

which the conditions considered essential for its incidence were not fulfilled, such as physical occupation of the property by the Government and the impediment of the re-entry of the domain holder, creating the figure of the “fictional dispossession” (LEME, 2010, p. 65), since the affected properties’ owners do not lose their possession nor do they necessarily suffer damage due to the imposed administrative limitations, which, in most cases, do not lead to the complete exhaustion of the economic potential of the property.

There are several cases, however, in which a normative act (e.g. listing by decree) determines an administrative limitation<sup>7</sup> and, in addition, leads to an “economic emptying of ownership” of the properties affected by the measure (BRASIL, 2009b). Strictly speaking, this is not an indirect expropriation – although many use the expression in this context<sup>8</sup> –, but a state act with *effects equivalent* to an expropriation measure.

The STJ has repeatedly made it clear that “the restrictions on the right to property, imposed by environmental regulations, even if they empty the economic content, do not constitute indirect expropriation” (BRASIL, 2013). Unlike the real action for indirect expropriation, which requires full compensation for the property, the indemnity action in cases of economic emptying by normative measures is personal and prescribes after five years<sup>9</sup>.

Without configuring an indirect expropriation, the administrative limitation imposes obligations not to do, to do and to bear, without necessarily leading to the obligation of the Government to compensate the owners whose properties were affected by the measures. There may be, however, cases in which the limitations imposed on a protected area make the property entirely unusable for its specific purpose, causing complete emptying.

For the verification of an effective economic emptying, the circumstances of the specific case of the affected property must be considered and not only formal aspects such as the type of state measure (GAIO, 2015). Along these lines, the STJ has demanded that, in order to receive compensation, the owner must prove that the limitations imposed by the state measure are more extensive than those

7 On the difference between the administrative limitations of *prescription* (e.g. PPA of art. 6 Forest Code) and of *execution* (e.g. PPA of art. 4 Forest Code), see CARVALHO, 2020, p. 110ss.

8 The STJ itself, in the aforementioned decision REsp no. 901.319/SC, of 2009, went so far as to state that “indirect expropriation requires, for its configuration, the dispossession of the property, directly by loss of possession or indirectly by the economic emptying of the property”.

9 The subjective-personal indemnity action prescribes after five years (art. 10, sole paragraph, DL 3.365/41); the actual action for expropriation (direct or indirect) has a statute of limitations of 20 years (Precedent No. 119-STJ).

established by the general links to the content of the property right (BRASIL, 2009a).

In addition, the Court linked the appropriateness of compensation, in the cases of LR and forest areas not included in another protection category, to the existence of a management plan approved by the environmental agency (BRASIL, 2008a, Ementa n. 2), demonstrating that economic exploitation, in all cases, must be compatible with the preservation of natural resources (GAIO, 2015).

In this sense, the STJ understood that properties “carry *multiple purposes* (private and public, including ecological ones), which means that their economic usefulness is not exhausted in a *single use*, in the *best use* and, much less, in the *most profitable use*”, since the legal order “does not guarantee the owner and the entrepreneur the *maximum possible financial return* of the private assets and activities carried out” (BRASIL, 2009c, Ementa n. 7 – highlights in the original).

Subject to the property’s ecological function, the owner/possessor cannot “claim undue loss of what, in the constitutional and legal regime in force, they never held, that is, the possibility of complete, absolute use, in scorched-earth style, of the thing and its natural virtues” (BRASIL, 2009c, Ementa n. 9).

Thus, an economic emptying with the effect of indirect expropriation can hardly be claimed within the PPAs of art. 4 of the Forest Code, as it is a general delimitation of forest property carried out by the parliamentary law itself. The creation of a PPA through an act of the Executive Branch (art. 6) may assume an expropriation nature, making it necessary to pay compensation. Regarding the LR, the STJ understands that its non-compensation is the rule, although there may be a need to indemnify the area’s owner in special circumstances, especially when a lawful economic activity was already carried out in the areas in question.

Notwithstanding the restrictions on the use of rural real estate imposed by the rules of the Forest Code (art. 12ss.) constitute mere limitations, which do not deprive the owner of their domain rights, there may be limitations that make a property entirely unusable “for the purpose for which it is intended, causing an entire emptying”, which represents a “true dispossession and as such imposes expropriation” and, consequently, compensation (BRASIL, 2009c)<sup>10</sup>.

Often, however, the limits of state responsibility are tenuous and imprecise, making it advisable to adopt formal and material criteria in conjunction, which implies assessing the property’ real situation, rather than just its legal status (GAIO, 2015).

<sup>10</sup> Vote-view of Eliana Calmon, Minister of the STJ, in REsp 1.109.778-SC (j. 11.10.2009), reproduced in the *Revista do Superior Tribunal de Justiça (RSTJ)*, Brasília, year 27, n. 237, p. 175, Jan./Mar. 2015.

## 6 The delimitation and restriction of property in favor of the environment in the German legal system

In Germany, the constitutional guarantee of property, regulated by art. 14 of the Fundamental Law (FL), of 1949, works with two distinct elements: expropriation and determination of property content and limits. There is *expropriation* in cases where a patrimonial right is totally or partially subtracted from an individual, by means of a state act, to carry out a public task. Therefore, there must be a specific intervention in the property, which causes the suppression of concrete and subjective positions. Furthermore, an expropriation law must regulate the type and amount of compensation.

The *determinations of content and limits* materialize the social and environmental function of property, establishing possibilities of use and disposition of the legal good considered property by the parliamentary laws and abstract and general norms of the Executive. They are carried out by means of parliamentary laws and abstract and general provisions of the Executive, without, as a rule, payment of compensation for these measures.

As for the property *limits*, these are set by the administrative bodies, often affecting already consolidated individual positions. The definition of the *content* of property rights leaves the legislator with greater space to regulate the matter with effect for the future, determining its contours and its material substance, including the ecological one (CZYBULKA, 2002).

In addition, it is worth mentioning, in this context, art. 20a of the BL, introduced in 1994, according to which “the State protects, also due to its responsibility towards future generations, the natural bases of life and animals in the molds of the constitutional order through the legislation and, according to the law, through the Executive and the Judiciary”<sup>11</sup>. It is a “State goal norm”<sup>12</sup> which does not establish a fundamental right, but has an objective legal effect and makes environmental protection a “fundamental state task”, requiring compliance by all public bodies.

Although it does not grant judicially claimable individual subjective positions, this norm requires that other material constitutional provisions be implemented in light of this specific purpose (CALLIESS, 2001). This option of the

<sup>11</sup> The extension of protection to *animals* was introduced in 2002 and shows that the guarantee of the natural bases of life protects primarily, but *not exclusively*, the interest of human beings (cf. HÖMIG, 2007, p. 243).

<sup>12</sup> *Staatszielbestimmung*. These norms do not determine ways or means of achieving their end, but leave that choice to the care of state bodies, especially the legislator (cf. FALLER, 2005, p. 160s.).

German legislator for a more abstract constitutional protection is compensated by a more intense infraconstitutional regulation and by a high efficiency of the administrative practice, mainly in the control and inspection (MATIAS; MATTEI, 2014).

In the legal system of that country, the dogmatic construction of an “ecological link” (*Ökologiepflichtigkeit*) of private property necessarily starts from art. 20a BL and cannot be understood as a mere extension of its social function. About two decades ago, this concept was introduced into the doctrinal discussion, which also serves to justify the limitation of the right to property beyond anthropocentric aspects, but in terms of its own cause, on the basis of ethical duties in relation to animals, species and ecosystems, which have already materialized in several points of ordinary German legislation (CZYBULKA, 2002).

The content of art. 20a BL must be placed in a reasonable relationship with the guarantee of the social function of property, coining its content ecologically, in addition to influencing the tracing of the different limits of the legislator’s regulatory competence. In this line, the German FCC understood that the owners’ duty to recover contaminated sites finds support both in the social function of property and in the protection of life’s natural bases, prevailing the aspect of the common good over the interest of not being limited in the private use of its terrain (BRD, 2000).

However, setting legal limits to the right to property cannot empty its *nuclear scope*, which includes the power to dispose of it and its usefulness as a basis for private initiative. On the other hand, the legislator’s free space grows as the *social relationship* of the property object increases, as in the case of *real estate*, due to its intrinsic finitude and the indispensability of land (BRD, 1999).

Furthermore, a determination of the content and limits of ownership cannot be reinterpreted as an expropriation measure. When there is a legal intervention in this sense, the measure does not lose its character in cases where it comes to resemble, in its effects for the individual affected, an expropriation. All legal issues of restricting the use of a property for ecological reasons must be resolved within the scope of fixing the contents and boundaries of the property.

According to the German FCC, *compensation* for a normative measure of this type must not necessarily be provided in cash, but through the legal granting of discretion to administrative bodies or the provision of transitional deadlines, as well as by rules that help to avoid inappropriate solutions in concrete cases<sup>13</sup>. At

13 In Germany, this type of rule is called “harshness clauses” (*Härteklausein*), since they serve precisely to avoid too “harsh” (= unfair) solutions.

the same time, it will only be possible to speak of an expropriation where there is an express legal provision of the respective formal administrative act<sup>14</sup>.

## 7 The environmental function of the German forest estate

Approximately one third (32%) of Germany's territory is covered by forests, whose ownership is distributed between individuals (48% = 2 million properties), the federal states (29%), the Federal Government (4%) and other public bodies, such as municipalities, foundations and consortia (19%) (BMEL, 2018). The objective of forest policy, formulated by the Federal Law on Forests (BRD, 1975) is to ensure the multiple functions of forests and guarantee their economic management, as well as achieve a balance between the interests of the community and those of the owners. To this end, the Law highlights the three basic functions of the forest: its economic, recreational and protective use (ENDRES, 1992)<sup>15</sup>.

German doctrine and jurisprudence have not yet dealt sufficiently with the specifically environmental (ecological) function of forest property. Although no one doubts that the laws determine the content and boundaries of forest property, there is not usually a specific interpretation of its function that places the nature protection aspect at the center of attention and imposes direct limits on the rights to use forests.

A more concrete legislative definition of the ecological link of forest property has become necessary due to the international obligations that are based on the Conventions on Biodiversity and Climate Change. Despite advances towards a new vision of the role of forests in protecting the climate and preserving the natural foundations of life (biodiversity, water management, microclimate), the German legislator has not yet adequately reacted to this legal challenge.

In order to substantiate an intervention by the German Judiciary, the legislator must have acted insufficiently (or omitted), thus contradicting the "deficient protection prohibition" (*Untermassverbot*), even though there are international or European norms directly applicable on the subject<sup>16</sup>. Although

<sup>14</sup> Thus the pacified jurisprudence of the German FCC (BRD, 1981); cf. CZYBULKA, 2002, p. 106.

<sup>15</sup> In addition, there are forest areas protected by the Nature Protection Act (BNatSchG) and the Water Resources Management (WHG) and Soil Protection (BBodSchG) Acts.

<sup>16</sup> This was the case of the recent decision of the German FCC (BRD, 2021), in which it decided that the country's Climate Protection Law does not establish sufficient guidelines for reducing greenhouse gas emissions after 2030, threatening the fundamental rights of future generations and breaching part of the commitments assumed in the Paris Agreement (2015), of the UN Framework Convention on Climate Change.



there is no international convention on forests in force<sup>17</sup>, they are included in the scope of protecting ecosystems, with the obligation to carry out impact studies<sup>18</sup>. In addition, Directive no. 43/1992 of the European Union (“Flora-Fauna-Habitat”), which has led to the creation of a network of protected areas (“Natura 2000”) and established various obligations to member countries, is in force.

Especially the normative concept of *sustainable forest management* of art. 1 of the Federal Forest Law (BRD, 1975) would need to be better implemented by the respective state laws. These usually provide for the competent administrative body’s prerogative to authorize the transformation of the use of forest-covered areas, which can be declared *protection forest* or *recreational forest*, with restrictions on their economic use. However, the sustainability principle, within the scope of German Forest Law, continues to suffer from a low regulatory density<sup>19</sup>.

At the same time, the Federal Law for Nature Protection (BRD, 2009), in its art. 5, establishes that forest management must respect “good forestry practice”, which includes the creation of forests that maintain their natural characteristics. This legal concept, however, has had few normative effects (CZYBULKA, 2020), since the texts of federal and state laws hardly define the owners’ concrete obligations in relation to the protection and conservation of the forests located on their properties.

In forests in the public domain, biodiversity protection by forest companies finds its immediate basis in art. 20 BL. This duty, however, can only be operationalized through the regulation of specific obligations for the management of use. As the logging companies’ lobby has always emphasized the economic aspects, there is, to this day, a lack of concrete norms on the maintenance of forest biodiversity, prevailing conflicting provisions on goals and purposes. Thus, the points of divergence about a sustainable forestry economy await legal rules that provide for topics such as clear cutting of larger areas, plantations of species not typical of the region, staggering of trees by age, etc. (CZYBULKA, 2020).

In addition, there are still several difficulties in articulating and reconciling the norms contained in federal and state laws on forests, protection of nature, species, water and soil, which are also reflected in the setting of due indemnities and compensation in cases of limitations and restrictions on property rights in forested properties.

It remains to be noted that, in recent decades, the German legal system of

17 At the UN Conference on Environmental Development (UNCED), in 1992 (RIO-92), a binding Convention on Forests was not approved, only a Declaration (*soft law*).

18 Arts. 8 and 14 of the Convention on Biodiversity – CBD (UN, 1992).

19 On the problem of low legislative programming within the scope of Brazilian Environmental Law, see KRELL, 2020, p. 6ss.

forest protection has increasingly moved away from the model of creating reserves and conservation units to protect certain areas and objects, adopting the regulation of *specific interventions* that must be avoided or compensated, in order to guarantee a generalized minimum standard in all forest-covered properties (ENDRES, 2006). This new model, however, makes the system more complex and even contradictory in several regards, not least because there is a lack of harmony between the different administrative bodies.

### 8 Compensation for measures “with an expropriation effect” that delimit property within the scope of water and nature protection in Germany

In addition, the German FCC decided that, in cases where the legislator wants to define the content and limits of the property, the respective normative act must also establish the conditions, form and amount of compensation for possible disproportionate burdens on the owners, the so-called “definition of compensable content” (BRD, 1999)<sup>20</sup>, based on the principles of proportionality and equality.

The legislation on water resources and nature protection itself provides for “equity compensation” (*Billigkeitsausgleich*)<sup>21</sup> for cases that do not reach the level of expropriation, but in which the entities benefiting from the limitations on the regular use of land must pay a fair financial compensation for the economic disadvantages caused to the owners.

According to the Federal Law for Nature Protection (§ 68), adequate compensation must be granted in the event that the restriction of property, based on a federal or state legal norm for nature protection, causes an *unacceptable encumbrance* that cannot be offset by other measures. In addition, the Law authorizes the States to provide for the payment of *adequate compensation* for cases (not compensated) in which the use of properties by the owners or authorized users is *substantially hindered*, in the sectors of agriculture, livestock, fishing and forestry (BRD, 2009, emphasis added).

This financial compensation for disadvantages below the limit of what is acceptable and unreasonable also serves to increase public approval of the measures to protect natural resources promoted by the Government, as it serves the interests

<sup>20</sup> In a decision on the constitutionality of a state law for the protection of historical heritage.

<sup>21</sup> In Brazil, the term “environmental compensation” denotes a financial mechanism that aims to counterbalance the environmental impacts expected or already occurred in the implementation of a project. It is a kind of compensation for degradation, in which the social and environmental costs identified in the licensing process are incorporated into the overall costs of the entrepreneur.

of the economic sectors that are normally most affected by protection measures. Federal law allows federal states to introduce said compensations below the level of unacceptable and unreasonable measures (KLOEPFER, 2016).

The compensations are located between what must be compensated by law and what must be tolerated, as it has the character of a definition of property content and limits, in the mold of its social link enshrined by the Constitution itself.

However, there is a practical difficulty in determining exactly the possible losses in forestry and agricultural production, since there are often alternatives to maintain an economical use of the soil, despite certain restrictions on its use imposed for the benefit of the environment. For this reason, there are those who understand that monetary compensation should be paid only in cases of obvious distortions of competition by producers in the same region (CZYBULKA, 2002).

The main reference to properly assess the obligation (or not) of a monetary compensation for the restriction of land use must be its previously exercised lawful use. However, at the executive level, a certain alienation of German administrative practice was observed in relation to the *duties of using* properties in the forestry and agrarian sphere, which made a correct legal framework unfeasible (CZYBULKA, 2002).

## 9 The main points of divergence between the German and Brazilian forest protection systems

Article 14 (1) of the German BL enshrines a “guarantee of existence” (*Bestandsgarantie*) of private property that ensures the individual a subjective right to the permanence of property rights in its various concrete positions against state power. After guaranteeing the institution of the property, it provides that “its contents and limits are defined by law”. At the same time, it establishes in item (3) that an expropriation “is only lawful when carried out for the common good”, that it “can only be carried out by law or by virtue of a law that establishes the form and amount of compensation”, which, in turn, “must be fixed taking into account the interests of the community and those affected” (BRD, 2019).

This right of defense is aimed at maintaining or restoring the constitutionally correct situation, a right that cannot simply be “bought” from its holder by the Government through the payment of compensation (ROZEK, 1998, p. 9). This distinction is due to the fact that the BL, in 1949, wanted to innovate the system of the Weimar Charter (1919), which adopted a system of protection of private property focused on expropriation: it was understood that an extension

of the concept of expropriation (compensable) would also increase the effective protection of property.

The idea behind the new regulation of art. 14 (1) of BL is the increase in the protection of private property as a fundamental right, emphasizing that the legislator's room for conformation in setting the content and limits of a type of property is not unlimited. If there is a disproportionate balancing of the interests involved, this exaggeration cannot be compensated by the simple payment of compensation, as it makes the entire measure unconstitutional (BREUER, 2008).

Even so, the Federal Court of Justice (BGH), the last instance of common justice in Germany, maintained this "merely indemnifying legal perspective" (ROZEK, 1998, p. 5s.) until the 1980s. The consequence was the almost automatic granting of monetary compensation in cases where the Court understood that state interference in the right to property was disproportionate, imposing a *special sacrifice* and, therefore, could not be considered a result of its social connection. In 1981, a FCC decision (BRD, 1981) led to the revision of this position in all branches of German justice.

The biggest problem was that, acting in this way, the judges did not carry out the proper differentiation between state measures, standardizing the treatment of interferences in property carried out by formal laws, decrees or administrative acts, by legal or factual acts, by legal or illegal measures. All these hypotheses were evaluated from the dogmatic concept of *unacceptable special sacrifice*, little open to considerations of reasonableness and proportionality.

The same confusion between the aspects of delimitation and compensation of property can be observed in Brazil up to the present day, including in the area of forests, where the courts traditionally determine the amount to be paid to the owner of a property affected by a state measure of protection based on general considerations, even with reference to the concept of *indirect expropriation*.

However, it does not seem to be feasible for the Brazilian system to assume the rigid Germanic distinction between, on the one hand, measures for determining the content and limits of forest property, and on the other, those for expropriation. Contrary to the text of the German BL, the Brazilian Constitution does not mention setting the content and limits of property, restricting itself to guaranteeing the right to property and the principle of its social function (art. 5, XXII and XXIII). Then (XXIV), it is foreseen, in an equally succinct manner, the "expropriation for necessity or public utility, or for social interest, upon fair and prior compensation in cash".

The model of this conceptual division must be considered, above all, a

specificity of the German system. In Brazil, it would hardly help to avoid undue convictions of public entities to pay indemnities, since it does not diminish the importance of balancing the public and private interests involved.

It is precisely this interpretative reasoning of the Brazilian Law enforcer that is still heavily influenced by the traditional individualistic concept of private property. In addition, there are numerous judges who do not exercise the balance of interests in a technically correct way, in addition to those who declare themselves adherents to certain concepts of modern argumentation theories, but, in practice, end up using the old arguments of authority when it comes to substantiating their decisions (RODRIGUEZ, 2013).

Therefore, a more promising way to change the line of the courts seems to be the establishment of more objective and adequate legal and dogmatic criteria on the proportionality of measures that determine content and limits of forest property, in order to avoid a subjective and little reflected balance on the reasonableness of the encumbrances and limitations of use suffered by the property's owner.

For the time being, the subject of compensation of individuals through environmental protection measures is not homogeneously regulated in Brazil. There are only sparse norms in federal, state and municipal legislation providing compensation for specific limitations due to the location of the property, without examining the (dis)proportionality of the limitation suffered. Thus, it is determined in advance which types of limitations will be compensated, and which will not.

Along these lines, parliaments (federal and state) should better determine property content and limits in different areas of economic life, setting clearer criteria for possible compensation of individuals by measures in favor of the environment. It does not seem to be the most appropriate solution to let the issue of possible compensation for the owner depend only on whether a property falls under some special legal regime for environmental protection, such as the PPAs and LR of the Forest Code, the different Conservation Units (Law 9,985 /00) or the Atlantic Forest biome (FENSTERSEIFER, 2008, p. 218s.).

In the Brazilian context, there is, until the present day, a tendency for legal operators to transform any normative measure limiting the use of ownership of a property into (indirect) expropriation, with the consequent duty of full compensation that usually benefits several people at the expense of the treasury ("compensation industry"). Thus, numerous cases of well-known delimitations of property were easily transformed into cases of expropriation, simply because there was a lack of objective criteria to distinguish between the two categories.

Despite the undeniable merits of the Brazilian courts (especially the STJ) in

the constitutionally adequate interpretation of legal and dogmatic concepts in the area of protection of natural resources, it should not be left to the free subjective discretion of each magistrate to decide whether there should be compensation in the specific case and what will be the amount to be paid, based only on the principles of reasonableness and proportionality.

Analyzing the situation of forest protection in Germany, it is revealed that the legislator in that country has not yet fulfilled its task of defining the content of protection and use of private forests based on scientific data, with the participation of interested groups and the general public, to guarantee the necessary protection of the forest as an ecosystem. These legal norms should establish not only purposes and goals, but set priorities, with a clear definition of the most important duties of forest owners in the context of their economic management. Thus, it is necessary to establish legal rules that allow forestry agencies to determine concrete compensatory measures in cases where obligations are not met.

Unlike the German context, in which the protection of tree-sized vegetation depends, in principle, on a specific act by the forestry authorities of the federal states, the Brazilian system works, above all, with areas directly protected by law, whose vegetation formations, in thesis, are untouchable, but makes exceptions in which there may be suppression and alteration of forest cover. These hypotheses have not always been treated in a restrictive manner by administrative bodies and state courts.

Even so, the Brazilian system seems to be the most adequate to the reality of a continental country whose size makes it difficult to have a more efficient administrative control of the countless rural properties that shelter forests, since the environmental protection agencies face several technical and political difficulties that decrease their efficiency.

The Germanic experience with the payment of “cash compensations” through measures to protect water and nature that only delimit the content and boundaries of the forest property, but which do not actually have an expropriation effect, highlights the difficulties that usually arise at the time of the concrete definition of alleged economic losses of the affected real estate properties, whose calculation normally does not consider possible alternative uses.

This type of “compensation for equity”, once introduced in Brazil, would certainly lead to even greater confusion in the understanding or practical use of legal and dogmatic instruments, and would serve to justify the payment of large indemnities in cases of mere delimitation of property shaped on the basis of their environmental function.

## Conclusion

In Brazil, the “fundamental duty” of environmental protection (art. 225 of the CRFB) is the basis for the legislator to further model the normative contours of the environmental function of property, thus combating the liberal-individualist perspective in favor of the innovative concept of sustainable development.

In the area of forest protection (as in many others), there is still a lack of a clearer division between an administrative limitation and an expropriation norm, given that a limitation can easily become a case of expropriation. Due to the focus on the legal doctrine’s abstract attempts to define the social and environmental functions of property in the different sectors, the discussion and confrontation of this figure with the other elements of the constitutional guarantee of property were neglected.

It remains evident that Brazilian law still needs to develop a more differentiated dogmatics on the subject, which establishes clearer criteria to draw a rational division between the administrative limitation (normally non-compensable) and the measure of expropriation effect (compensable).

It would also be necessary for the legislative and administrative bodies at the three federal levels to be demanded and pressured to establish more objective criteria for the compensation of determinations about the content and limits of property in the different sectoral areas, as it has happened in Germany after several decisions of the FCC on the subject.

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