DAM FAILURE AND THE CRIMINAL LIABILITY OF LEGAL ENTITIES

ROMPIMENTO DE BARRAGENS E RESPONSABILIDADE PENAL DA PESSOA JURÍDICA

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Abstract

The collapse of the mining dam in Brumadinho (state of Minas Gerais) raised discussion about the criminal liability of legal entities due to environmental damage. Taking the theme into consideration, the objective was to investigate the efficiency of the criminal liability of legal entities in the context of the rupture of dams maintained by mining enterprises, with the rupture of the dam in Brumadinho as the object of special research and discussion. The dialectical method was used, making it possible to question and deny the certainties hitherto established,

Resumo

O rompimento da barragem de mineração em Brumadinho (MG) suscitou discussão sobre a responsabilidade penal da pessoa jurídica em razão dos danos ambientais. Levando em consideração o tema, buscou-se investigar a eficiência da responsabilidade penal da pessoa jurídica no contexto do rompimento das barragens mantidas por empreendimentos de mineração, tendo como objeto da pesquisa e discussão especial o rompimento da barragem em Brumadinho. Utilizou-se o método dialético, possibilitando o questionamento sobre as certezas até então estabelecidas, propiciando negá-las e, desse



and, from this intellectual exercise, to extract secure knowledge. As a hypothesis, the imputation of criminal liability to legal entities reveals itself as symbolic legislation that translates into an apparent action of the State with the purpose of giving an apparent solution to the problems and challenges of environmental protection. Furthermore, it blinds the theme and prevents the discussions from advancing in the search for efficient answers. The article hypothesize the application of the Right of Intervention, proposed by Hassemer, through its manifestations in Brazilian Law. As a conclusion, it was identified that the absence of legal and material conditions for the penal accountability of the legal entity establishes a false perception of fulfillment of the proclaimed promises of environmental protection contained in the Federal Constitution of 1988.

Keywords: dam burst; ecological disaster; mining; right of intervention.

exercício intelectivo, extrair um conhecimento seguro. Como hipótese, a imputação de responsabilidade penal à pessoa jurídica se revela como legislação simbólica que se traduz em uma atuação aparente do Estado com a finalidade de conferir aparente solução aos problemas e desafios para a proteção ambiental. Ainda, blinda o tema e impede que as discussões avancem na busca de respostas eficientes. O trabalho conjectura a aplicação do Direito de Intervenção, proposto por Hassemer, por meio de suas manifestações no Direito brasileiro. Como conclusão, identificou-se que a ausência das condições jurídicas e materiais para a responsabilização penal da pessoa jurídica estabelece uma falsa percepção de cumprimento das promessas proclamadas da proteção ambiental que constam da Constituição Federal de 1988.

Palavras-chave: desastre ecológico; direito de intervenção; mineração; rompimento de barragens.

Introduction

Mining stands as a cornerstone of the economy across several Brazilian states, fostering the growth of municipalities, income distribution, and job creation, while serving as the primary source of tax revenue in these regions. Nonetheless, the environmental repercussions stemming from mineral exploitation, particularly regarding large-scale mining, had once again surfaced, exemplified by the catastrophic breach of Dam I at the Córrego do Feijão Mine in Brumadinho (Minas Gerais, Brazil).

On January 25, 2019, at approximately 12h28 p.m., Dam I collapsed at the Córrego do Feijão Mine, in Brumadinho, resulting in the tragic loss of 270 lives. The entities accountable for this devastating event were Vale S.A. and TÜV SÜD Bureau de Projetos e Consultoria Ltda., in collaboration with 14 individuals spanning various technical engineering and security disciplines. Among the victims were employees of Vale S.A., contracted workers, residents, and visitors of the area. Beyond the human toll, the incident wreaked havoc on local wildlife and vegetation, compounding concerns regarding the degradation of the Paraopeba River.

Adding to the grim narrative, the incident occurred a mere four years after the collapse of the Fundão Dam, situated within the Germano Industrial Complex in Mariana (Minas Gerais, Brazil). Under the management of Samarco Mineração S.A., this catastrophe prompted the initiation of criminal proceedings by the Federal Public Ministry against Samarco Mineração S.A. and Vale S.A., along with 19 individuals, for crimes against both human life and the environment. If the prospect of imposing criminal penalties were to effectively deter future transgressions, reinforcing the indispensable norms for societal coexistence and life, then similar occurrences to those in Mariana would ideally have been prevented or mitigated in the case of Brumadinho. Hence, our inquiry delves into the efficacy of holding legal entities criminally accountable in the aftermath of the environmental tragedy that unfolded with the Brumadinho dam collapse.

Our study posits that assigning criminal liability to legal entities proves ineffective, as the penalties stipulated in legislation primarily lean towards civil and administrative measures, lacking criminal repercussions. Moreover, the provision of criminal liability of legal entities is symbolic legislation that translates into an apparent ("illusory") action by the State to address environmental protection challenges, yet failing to deliver the anticipated outcomes. Instead of the pledged environmental safeguarding, what transpires is a void in criminal environmental protection.

To fulfill our overarching goal, our specific objectives include assessing the efficacy of imposing criminal liability on mining corporations and identifying alternative means to hold legal entities accountable for environmental harm.

The research will utilize the dialectical method, enabling the questioning of preconceived truths, fostering their challenge, and ultimately, with this intellectual process, the evaluation of dependable knowledge. To assess the effectiveness of criminal sanctions imposed on legal entities, the legal-comprehensive methodological approach will be used, which involves dissecting the attributes of legal entities into their various dimensions and relationships. To pinpoint alternatives for holding them accountable, we shall explore the Right of Intervention, as proposed by Winfried Hassemer, and its incorporation into Brazilian Law through the framework of Administrative Law. Additionally, we will delve into concepts such as Inhibitory Protection and the obligations outlined in the regional agreement on access to information, public participation, and access to justice in environmental matters in Latin America and the Caribbean, widely known as the Escazú Agreement.

Regarding the data's nature, we will draw from the Federal Constitution of

Brazil, the Environmental Crimes Law, and other relevant regulations. Additionally, we will examine the jurisprudence of the Federal Supreme Court and the Superior Court of Justice on the topic, alongside insights from researchers in the field. Gathered and reconstructed data will undergo analysis through the lens of the Democratic Rule of Law.

1 The criminal liability of legal entities in environmental crimes

The 1988 Federal Constitution of Brazil recognized as fundamental "the right to an ecologically balanced environment, which is an asset of common use and essential to a healthy quality of life" (Article 225, Brasil, 1988). This acknowledgment elevated the environment to the *status* of a legal asset, subjecting it to protection under Criminal Law, as well as civil and administrative safeguards, as provided for in Article 255, §3° (Brasil, 1988), and Article 3 of Law No. 9,605/1998, commonly referred to as the Environmental Crimes Act (Brasil, 1998).

The inclusion of the possibility of attributing criminal liability to legal entities marked a constitutional innovation within the national legal framework, initiating debates concerning the efficacy of this responsibility in both penalizing and deterring environmental offenses. The operations conducted by a legal entity contribute significantly to wealth and development. However, within the framework of capitalist production, corporate exploitation often leads to adverse outcomes, such as environmental pollution and the unsustainable depletion of natural resources.

A legal entity, an abstract construct, emerges from the amalgamation of individuals bound together by a shared objective, imbuing the entity with a cohesive identity. Hence "the personification of the abstract entity arises, whose will diverges from that of its members—*societas distat a singulis*—there is a personification of the collective entity" (Venosa, 2022, p. 215, free translation).

Thus, a transformation occurs: the natural persons who constitute the legal entity are not to be confused with it, nor with its administrators or directors since the legal personality of the people who constituted it is distinct, as well as their social and legal objectives, whose objective motivated the creation of the legal entities (Alonso, 2016).

Following the Theory of Fiction, as expounded by Savigny (2004), rights can only be exercised and upheld within human relationships, as it is solely individuals who possess the will to deliberate and the capacity to act. The foundation of every right lies in the moral freedom inherent to the individual. Therefore, the

conception of the fictitious subject of law created by man must align with those who originated it, guided by the principle that only human beings are entitled to legal capacity.

In this context, Feuerbach (1801 apud Saggese, 1997, p. 99) contended that a legal entity cannot commit crimes, reinforcing the Roman adage "societas delinguere non potest" (translated as "a legal entity does not commit crimes"). Thus, their exemption from criminal responsibility is established, as only the individuals responsible for creating the fictitious entity could engage in criminal acts with intent.

Conversely, the Theory of Reality posits that a legal entity expresses its will through its bodies (Organic Theory), thus possessing the capacity for action and culpability in criminal activities, thereby incurring not only civil liabilities but also penalties. This acknowledgment of the criminal accountability of legal entities was pioneered in Germany by Otto von Gierke and refined by Franz von Liszt, who regarded culpability, from a psychological standpoint, as a prerequisite for imposing penalties (Saggese, 1997).

The Theory of Reality is predicated on the notion that from its inception, individuals have joined forces to pursue common interests or address societal needs. Consequently, the Law has consistently recognized collective entities as distinct entities from their constituents or the groups that constitute them, possessing unmistakable identities. As a result, these entities have been empowered to operate within the legal framework, with their existence acknowledged as subjects endowed with rights and obligations to serve human or social interests, furnished with apparent autonomy. With the recognition of the legal personality of entities, they were endowed with wills and assets distinct from those of the individuals who comprise them. This understanding prompted the evolution of the Theory of Legal Reality from an objective or organic conception to a Theory of Technical Reality, distinguishing the entity's assets and personal attributes from those of its managers and members (Pereira, 2020).

Some proponents still advocate for the Negativist Theory, which denies the existence of legal entities, asserting that only individuals hold legal standing. According to it, collective entities lack personality attributes, will, and consequently, culpability (Venosa, 2022).

On the other hand, the Theory of Institution posits the existence of numerous institutional realities within social constructs, each characterized by a hierarchical structure—the inner workings of a legal entity—revealed to the external world through decisions made by its managers. Under this framework, when the actions of a legal entity reflect the consciousness of individuals making directive decisions, and they act with full awareness and responsibility towards social objectives, the "institution" acquires moral and subsequently legal personality (Venosa, 2022).

Within the Institution Theory, the criminal liability of a legal entity is ascribed to any individual capable of exercising the actions impacting social life through the expression of their will, termed "special will". In essence, the collective will of institution members materializes through the entity's will within the confines of the social statutes that established it (Saggese, 1997).

Consequently, the legal entity is deemed capable of committing (action) crimes, giving rise to criminal liability.

In instances where criminal outcomes materialize, dual culpability arises that of the legal entity and each of its members who violated legal assets protected by criminal law (Saggese, 1997). Thus, the Theory of Double Criminal Imputation emerged, mandating criminal liability for both legal entities and their members simultaneously.

This perspective challenged the traditional notion encapsulated in the maxim *societas delinquere non potest*, which held that legal entities could not commit crimes and, thus, should not be held criminally liable (Sierra, 2012).

In the Brazilian legal framework, the Theory of Technical Reality regarding legal entities is embraced, as legislation and court interpretations recognize the distinction between the personality and assets of a legal entity and the individuals comprising it. The explicit provision of Article 49-A, incorporated into the Civil Code by Law No. 13,874/2019, which introduced the Declaration of Economic Freedom Rights aimed at ensuring free market guarantees, stipulates: "A legal entity should not be confused with its partners, associates, founders or administrators" (Brasil, 2019, free translation).

Within the realm of criminal law, the Theory of Technical Reality manifests in the possibility of a legal entity being the sole defendant in a criminal proceeding, without the necessity of identifying and prosecuting the natural persons within it, in line with the stance established by the Federal Supreme Court (Supremo Tribunal Federal – STF) in the ruling of Extraordinary Appeal No. 548,181.

However, criminal law must serve as a tool for ensuring the effectiveness of the legal system rather than being merely symbolic and lacking social efficiency. The risks associated with this approach become apparent, especially in cases of large-scale exploitation of natural resources by mining companies.

In this regard, despite the acknowledgment within legislation and

jurisprudence, particularly by the STF, of the potential criminal accountability of legal entities for committing environmental crimes, it is evident that significant challenges hinder the practical realization of such accountability. This situation is linked to various key factors: (a) the issue of the (in)ability to act; (b) the (in) capacity for culpability; (c) the principle of the personality of the sentence; and (d) the nature of penalties applicable to legal entities under environmental crimes law.

A legal entity lacks the inherent ability to act and can only express its actions through its managers or members of the board of directors. Thus, the legal entity's incapacity to act is absolute, as only the individual, the human person, possesses the capacity for action due to their autonomy and will. According to the Finalist Theory, action is defined as "[...] voluntary bodily movement that causes modification in the external world. The manifestation of the will, the result, and the causal relationship are the three elements of the concept of action" (Bitencourt, 2022, p. 19, free translation).

Wezel (2001) introduced the Finalist Theory, adopted in the Brazilian criminal legal system, by asserting that criminal action is rooted in human beings, who, through their will, engage in acts directed toward a purpose, as they can anticipate the potential consequences of their actions. Responsibility solely rests with human beings and not with animals or fictional entities, as determination and will are exclusive attributes of the human person (Saggese, 1997).

For criminal law, the crucial element of relevant action encompasses conscience and will—attributes inherent only to humans and impossible to manifest within a legal entity. Guilt, regarded as a fundamental aspect of criminal conduct, involves the reproachability of one's volition. Despite the ability to adhere to legal norms, an individual may deliberately choose to defy the law, as argued by Welzel (2001).

Thus, culpability represents a conscious exercise of autonomy by a morally responsible individual who, despite being cognizant and capable of conforming to legal standards, elects to act contrary to them, thereby inviting societal censure for their unlawful behavior. In this context, blame can only be attributed to a natural person, endowed with volition, rather than to a legal entity such as a corporation or any other collective entity devised by humans (Welzel, 2001).

To conceive otherwise would be illogical. Legal entities inherently rely on natural persons to conduct actions, thereby presenting a fundamental dilemma regarding accountability between those who perform actions and those who are held criminally responsible. Attributing guilt to a legal entity entails a dissociation between the individual who commits the crime (the actor) and the entity held

responsible, with the latter taking accountability (Rodríguez, 2004).

This scenario could potentially lead to a form of vicarious liability, where the legal entity is held responsible for the intentions and actions of its directors or members—a direct contradiction to the principle of subjective culpability, which focuses on the individual who consciously violates the law.

In the Brazilian legal system, the principle of subjective culpability finds "constitutional support implicit in Article 1, III (dignity of the human person), corroborated by Articles 4, II (prevalence of human rights), and 5, *caput* (inviolability of the right to freedom), of the FC" (Prado, 2019, p. 86, free translation). Contrary to this legal-philosophical framework, the concept of subjective culpability cannot be applied to legal entities due to their inherent lack of consciousness and volition—essential prerequisites for criminal liability and the imposition of sanctions on those who contravene the legal order and consequently face societal disapproval.

The implications of the Principle of Subjective Culpability extend to the Principle of the Personality of the Sentence, ensuring that no sentence extends beyond the person of the convicted individual. Moreover, imposing a criminal sanction on all members of a legal entity would violate the principle of the personality of punishment. Criminal responsibility is inherently personal, focusing on the individual who commits the action leading to the outcome and is exclusively subjective, considering the consciousness, will, and self-determination of the person. According to Prado (2019, p. 87, free translation), "this way, any other type of criminal liability (e.g., collective, for the act of another, etc.) is ruled out".

Regarding the nature of the penalties applicable to the polluter, for the same act, responsibility arises in the administrative, civil, and criminal spheres, which act concomitantly, cumulatively, or alternatively, depending on the circumstances (Milaré, 2018). In this sense, investigations into the polluter's conduct are independent of the exhaustion of investigations in other realms of responsibility.

However, concerning criminal responsibility, adherence to principles inherent in traditional criminal-legal epistemology dictates that only the gravest violations of society's most crucial legal interests call for the intervention of criminal law as a last resort (*ultima ratio*), compliant with the Principle of Subsidiarity. Indeed, criminal law is not a panacea for addressing all societal issues but should be reserved for cases where other legal avenues fail to adequately protect vital legal interests (Hassemer 2008).

The principles discussed so far—capacity for action, culpability, the intranscendence of the penalty, and the Principle of Subsidiarity (*ultima ratio*)—are

The modern approach broadens the scope of Criminal Law, but by attempting to protect everything, takes on a symbolic role and, ultimately, safeguards nothing. An examination of penalties imposed for environmental crimes against legal entities reveals a predominantly civil and administrative nature: community service, temporary suspension of rights, partial or complete cessation of activities, and financial penalties (as stipulated in Article 8 of Law No. 9,605/98).

This underscores the Environmental Crimes Law's deficiency in both quality and quantity of objective conditions necessary to effectively safeguard legal assets falling under its purview. The absence of these conditions establishes "illusion" and "dissimulation" of the proclaimed promises, which characterizes symbolic criminal legislation. This "illusion" often arises from a desire to portray a robust State, pacify public sentiments, or merely demonstrate action toward fulfilling previous commitments. Consequently, due to this shortfall in execution, symbolic criminal legislation suffers from inefficiency, failing to meet expectations for the protection of legal assets that should be upheld by criminal law (Hassemer, 2008).

Another significant negative effect of symbolic environmental criminal legislation is its tendency to create an illusion of protection, thereby stifling debate and relieving environmental policy from the pressure to implement effective measures for safeguarding the environment. This dynamic arises because there is an expectation that Criminal Law will ensure protection, yet such expectations often fail to materialize on a practical-empirical level. Consequently, the environment remains vulnerable, while Criminal Law suffers a loss of credibility due to its evident failure to enforce regulations and effectively safeguard legal assets. The political and legislative choice to embrace symbolic criminal legislation creates an illusion of simplicity, leading to the premature abandonment of efforts to pursue more effective measures closely aligned with the pressing need for environmental preservation (Hassemer, 2007).

In this sense, assigning criminal liability to legal entities appears strongly symbolic. Moreover, it is simply implausible for a legal entity to endure a prison sentence, as it is unreasonable to contemplate restricting the freedom of movement, a fundamental right, for multinationals like Vale S.A., responsible for the mineral exploration in Brumadinho.

Once more, the symbolic essence of legal entity criminal responsibility is emphasized, as Criminal Law "must be backed by a credible threat of imprisonment to prevent it from succumbing to symbolic and deterrent trends without genuine punitive intent" (Tório Lopéz, 1991 *apud* Oliveira, 2012, p. 239, free translation). According to legislation, criminal liability for legal entities lacks enforcement: there are no criminal sanctions imposed on them; rather, penalties are civil and administrative. Furthermore, imposing custodial sentences on collective entities is impractical.

2 Alternatives to mitigate the symbolic nature of the criminal liability of legal entities regarding environmental damage

In addressing contemporary societal challenges, both lawmakers and judicial bodies are compelled to alleviate the strains they face by expanding the scope of Criminal Law. This initiative aims to align with the expectations of a risk-conscious society, as elucidated by Beck (2011).

Within postmodern society, the accumulation of wealth under the capitalist means of production is coupled with the communal production of risks. A defining aspect is the ostensibly "fair" distribution of risks juxtaposed against the "unfair" distribution of generated wealth, fostering a milieu of scarcity (Beck, 2011). The quest to alleviate this disparity leads late modernity to harness nature via a process of modernization, under the pretext that scientific and technological advancement is imperative for realizing a utopia of social affluence. However, the unchecked advancement of productive forces during the modernization process unleashes increasingly deleterious consequences. This inherent contradiction typifies this mode of production (Beck, 2011).

Consequently, a novel understanding of risk emerges, transcending individual human perception. The social and political ramifications of industrialization's modernization reverberate globally, affecting all facets of life (human, fauna, and flora). This existential threat to life on Earth, in its myriad forms, challenges conventional modes of thinking and behaving regarding "space and time, work and leisure, corporations and the nation-state, even the boundaries between military alliances and continents" (Beck, 2011, p. 27, free translation). Its detrimental repercussions extend to present and future generations, affecting both the impoverished and the affluent, as well as local and distant communities, transcending geographical borders. It therefore impacts property, profitability, and legitimacy, as the societal acknowledgment of the risks associated with

modernization correlates with ecological degradation and displacements on a universal and transnational scale (Beck, 2011).

The vast geological and global ramifications of human activity within the context of the risk society have led to the emergence of a new geological era: the Anthropocene. In Brazil, manifestations of Beck's risk society model are evident in the dam collapses in Mariana (2015) and Brumadinho (2019), which starkly exposed the utter failure of public and private entities "to effectively manage the inherent risks of productive activities, neglecting to adopt minimally sufficient and efficient preventive measures" (Sarlet; Fensterseifer, 2021, p. 209, free translation).

To rectify the symbolic and ineffective nature of Criminal Law, utilized as a mechanism of social control in a society characterized by risks and fear of catastrophes, Hassemer (2008) initiates his discourse by delineating between what he terms "Classical Criminal Law" and the appeal of "Modern Criminal Law". The author proposes that Criminal Law, with its classic structural epistemological guidelines, must be maintained. However, he contends that establishing a new legal framework is imperative to safeguard diffuse assets within society and ensure efficient accountability in cases of violations. The author suggests the development of what he terms "Intervention Law", aimed at preserving the core principles of Criminal Law while integrating protective mechanisms from other branches of Law (Hassemer, 2008).

To achieve this, it becomes necessary to exclude unlawful acts that do not constitute the core elements of classical Criminal Law, to preserve its integrity, along with its traditional incriminating types. This would eliminate the symbolic function entrenched within the most stringent coercive framework of the legal system. According to Costa (2014), the core elements include subsidiarity (ultima ratio), the principle of minimum intervention and proportionality, as well as general deterrence, protection, and condemnation through punishment for concrete violations such as threats to life, physical integrity, freedom, property, and honor, for example.

In developing this concept, Hassemer (2008) argues that Criminal Law safeguards social expectations enshrined in the social contract, where individuals relinquish certain freedoms in exchange for a state that enhances and safeguards their liberties. Therefore, any breach of the freedoms guaranteed in the social contract constitutes a crime. Consequently, the boundaries must be clear and precise, excluding all types of violations and illicit acts in the risk society. There are efficient legal remedies in other branches of law, rendering Criminal Law unnecessary to approach them.

Modern Criminal Law demonstrates its expansion beyond classical limits, evidenced by the proliferation of criminal statutes aimed at regulating social behavior, including multinational business activities, consumer protection, and environmental preservation, among other contemporary legal concerns within today's risk society. In this expansive paradigm, it is viewed not only as a remedy for addressing significant social disturbances but also as a tool for public education, aimed at raising awareness about issues such as environmental degradation, violence against women, and other sensitive topics. Criminal Law, within this framework, is no longer reserved solely as a last resort when other legal avenues fail to safeguard legal interests. Instead, it often serves as the primary (*prima ratio*) or sole (*sola*) resource in addressing social issues within the risk society (Hassemer, 2008).

Modern Criminal Law is plagued by significant deficiencies in implementing punitive objectives, resulting in a deficient execution of its mission. Consequently, societal expectations are often relegated to merely symbolic functions (Hassemer, 2008). In this sense, conceived to serve the needs of a "risk society", Modern Criminal Law falls short of delivering the promised protection, reducing its efficacy to a symbolic gesture.

Faced with this stark reality of implementation and execution deficits, Hassemer (2008, p. 262, free translation) advocates for the creation of a distinct legal branch termed the Right of Intervention:

[...] positioned between Criminal Law and Misdemeanor Law, as well as between Civil Law and Administrative Law. Certainly, this modern legal concept could indeed feature fewer stringent guarantees and procedural formalities, while also imposing less severe sanctions on individuals. Such a "modern" legal framework would be inherently less punitive in nature and, concurrently, better equipped to address the nuanced challenges prevalent in contemporary society.

Sánchez (2013), who shares concerns about the expansionism of Criminal Law in post-modern society, provides critical insights into Hassemer's (2008) proposed Right of Intervention. The author suggests the possibility of maintaining sanctions other than prison sentences, introducing a theoretical construct termed "Two-speed Law". First speed establishes that the fundamental tenets of Criminal Law, including capacity for action, culpability, minimal intervention, *ultima ratio*, and custodial sentences, would be preserved. Second speed determines that modern Criminal Law would be invoked to tackle the demands of post-industrial societies, enabling the punishment of so-called "secondary" crimes such as financial, economic, and environmental offenses, among others. Crimes of this nature might not inherently merit a prison sentence, instead allowing for a regulatory

approach focused on penalizing risky behaviors through fines and restrictions on rights, mirroring a potential form of Criminal Law centered on reparative measures.

Despite Sánchez's (2013) critique, the proposal for the Right of Intervention would not solely focus on reparations but rather on preventive measures, aligning with situations involving significant risks and threats, as observed in the structural complexities of mining activities. Both the State and society would possess the capacity to proactively anticipate and control potentially risk-producing economic activities (Hassemer, 2008).

The legal framework of the Right of Intervention offers an approach toward preventing harm in a timely manner, as opposed to the reactive, delayed approach often associated with Criminal Law, which may not effectively contribute to the preservation of the environment and all forms of life (Hassemer, 2008). Thus, the use of this legal instrument, instead of relying on symbolic Criminal Law, presents a more practical option, especially given the presence of enforcement mechanisms to ensure the enforcement of decisions and social control actions against communities, groups, and multinational entities exploiting natural resources in Brazil.

In the national context, there is no need to establish a new legal branch that fluctuates between mitigating the guarantees inherent to Criminal Law and existing within a gray area among other branches of Law, as argued by Hassemer (2008). The Right of Intervention within the Brazilian legal system demonstrates compatibility and feasibility in complementing Administrative Law and Civil Law sanctions. By using these avenues, the essence of Criminal Law, which has often been deemed symbolic and ineffective in holding legal entities accountable within the mining sector, is preserved.

Beginning with Administrative Law, this branch governs the relationship between citizens and the State in a vertical framework, characterized by the dichotomy of Public Administration prerogatives and the rights of citizens. Central to this relationship is principles emphasizing the supremacy of public interest over private interests and the non-negotiability of public interest (Mello, 2013).

Due to these principles, Administrative Law assumes a pivotal role within the Rule of Law framework. It is tasked with promoting and delivering public services, regulating various activities through police power, and, when instances of wrongdoing are identified, granting the Public Administration the authority to impose sanctions. Thus, the structure of Administrative Law can be delineated by the following characteristics: the presence of administrative authority, adherence to the imperative of legality concerning the imposition of duties and deprivation of rights, and the underlying repressive aim to restore legal order when infringed upon, while always ensuring fundamental rights such as adversarial proceedings and broad defense within administrative procedures (Oliveira, 2012).

This authority vested in the Public Administration to enforce sanctions and administrative penalties gave rise to what is termed as sanctioning Administrative Law. It is evident that Criminal Law is not the exclusive means by which the State can impose penalties and sanctions to repay and deter illicit acts. Through administrative sanctions, potentially polluting economic activities can be monitored and controlled.

The emergence of sanctioning Administrative Law can be traced back to the decriminalization movement in Germany during the 1970s, which arose in response to the proliferation of accessory Criminal Law, primarily within the economic domain (Oliveira, 2012). Over time, it evolved into a "vehicle of normative discipline that the State employs both to act directly and to regulate the behaviors of other entities and legal bodies" (Osório, 2011, p. 42, free translation).

This branch of Law is instrumental in safeguarding diffuse assets, such as the environment. It operates within the administrative realm to regulate conduct posing abstract dangers and to exercise general control. It provides the Public Administration with the means to regulate daily activities and coordinate its various spheres of operation. In this context, administrative sanctions serve to reinforce the standards and ordinary actions that must adhere to constitutional principles (Oliveira, 2012).

Among these imperative constitutional promises is the promotion of the fundamental human right to an ecologically balanced environment for present and future generations, as outlined in Article 225 (Brasil, 1988). To this end, administrative sanctions carry both repressive and punitive implications, directly impacting all stakeholders within the Rule of Law, which also exert preventive and educational effects on these stakeholders.

Consequently, administrative sanctions aim to restore the legality breached by illicit conduct and seek to ensure, *pro futuro*, compliance with the law and all regulatory acts issued by the State to oversee the exploitation of natural resources (Osório, 2011). Through sanctioning Administrative Law, legal entities can be effectively penalized, a task often challenging to accomplish via Criminal Law due to its constraints on holding legal entities accountable and imposing sanctions.

Another advantage of Administrative Law is that the application of sanctions is independent of authority, allowing for enforcement by the Public Administration itself, albeit within a framework of due administrative legal process, which,

although less safeguarding, is more stringent than within the judicial scope (Costa, 2014). The administrative sanctioning authority operates primarily in the realm of prevention, with the Public Administration exerting control to anticipate conduct posing risks to the environment. Therefore, it should always be considered as the first measure (prima ratio).

Criminal Law can and should indeed be integrated into public policies aimed at environmental protection, albeit as one facet among others, and utilized as a last resort (ultima ratio) if alternative measures within the legal system prove ineffective for environmental safeguarding. As noted by Costa (2014, p. 116, free translation), "for an effective preventive and punitive environmental policy, before resorting to Criminal Law, Administrative Law must be strengthened, particularly in its sanctioning capacity".

Following the mining dam collapses in Minas Gerais, Brazil initiated efforts to establish a robust system within the Public Administration equipped with mechanisms to regulate activities involving mineral resource exploitation. This specialized branch of Law, if well structured, has the potential to effectively prevent environmental damage and impose sanctions against violations.

The breach of the paper and cellulose waste dam in Cataguases (Zona da Mata, state of Minas Gerais) in 2003 led to discussions culminating in the enactment of Law No. 12,334/2010, which established the National Dam Safety Policy and created the National Dam Safety Information System. The tragic incident in Brumadinho on January 25, 2019, underscored the need for enhancements and the implementation of new provisions in the law to bolster dam safety. Hence, Law No. 14,066/2020 was enacted to amend Law No. 12,334/2010 and reinforce the administrative framework of the National Dam Safety Policy.

In alignment with these legislative efforts, Decree No. 10,139/2019 consolidated standards on the safety of mining dams under the purview of the Brazilian Mining Agency (Agência Nacional de Mineração – ANM). The ANM collegiate board enacted Resolution No. 95/2022, delineating normative acts concerning the safety of mining dams.

This legal framework empowers Administrative Law with coercive authority to mandate the decommissioning and decharacterization of dam structures constructed using the upstream method, among other directives. Moreover, it mandates ANM to issue annual and monthly reports outlining the outcomes and oversight of periodic dam safety assessments, alongside other crucial preventive measures. Additionally, administrative sanctions are typified, ranging from warnings to the partial or total suspension of activities with the seizure of minerals, assets, and equipment, as well as the revocation of mining licenses and rights, as stipulated in Article 17-A of Law No. 12,334/2010.

These instruments, wielded by the state apparatus and available through sanctioning Administrative Law, can promote biodiversity and natural resource protection more effectively than symbolic Criminal Law, which often fails to deliver on its promise of holding legal entities criminally liable.

Another legal means for environmental protection is manifested in the procedural technique of injunctive protection. This measure can be granted by the authority within the scope of the common procedure, in a Popular Action or Public Civil Action, as provided for in art. 497 of Law No. 13,105/2015, the Civil Procedure Code. This procedural technique proves to be a crucial tool in safeguarding the environment more effectively, preempting damage and disasters by adhering to the environmental principles of prevention and precaution.

In legal-procedural practice, it is evident that injunctive protection does not directly safeguard the legal good itself, but rather upholds the rule that protects the legal good from any actions contrary to the law, as stipulated by Article 5, XXXV, of the 1988 Federal Constitution of Brazil: "the law shall not exclude any injury or threat to a right from review by judiciary". As such, it is directed towards the future, aiming to prevent acts that contravene the law before any damage occurs. This pre-emptive approach is particularly crucial in the context of mining, where the potential for harm is immeasurable (Marinoni, 2017).

Upon being petitioned, the judge can enact measures based on a well-founded apprehension of breaching rules safeguarding environmental interests, which may include issuing mandatory injunctions with obligations to either perform or refrain from certain actions, along with imposing daily fines for non-compliance.

A leading case demonstrating the application of injunctive relief in environmental issues within the authority of the Superior Court of Justice (STJ) is Special Appeal No. 1,616,027 from São Paulo. Minister Herman Benjamin, serving as the rapporteur of the appeal, elucidated the significant role of injunctive protection in environmental prevention and precaution (Brasil, 2017):

[...] The effectiveness and success of the claimant's performance in collective litigation are not gauged by addressing damage that has already transpired, but rather by proactively preventing or mitigating the threat of future environmental degradation. Otherwise, the preventive significance of the Judiciary would be compromised, reducing its jurisdiction to the unproductive and ineffective task of merely managing already incurred and possibly irreversible environmental and public health damages: a judge assessing losses, constrained to solely reflect on past events, rather than a judge addressing risks, empowered to safeguard the future and

enact proactive and precautionary justice. An alternative interpretation would hinder administrative bodies from promptly rectifying flaws and altering courses during the licensing process, thereby saving time—a valuable commodity for those keen on avoiding delays in socially significant activities and projects—as well as scarce material and human resources. Moreover, it would enhance legal certainty for entrepreneurs, the state, and society as a whole, including future generations represented therein [...] (REsp n. 1.616.027/SP, rapporteur Minister Herman Benjamin, Second Panel, judged on 3/14/2017, DJe of 5/5/2017, free translation).

Notably, injunctive protection serves as a strategic tool to proactively safeguard the environment, prima facie, before damage occurs, particularly in the context of mining activities that extensively exploit natural resources in Brazil.

Finally, Hassemer (1998) underscores the indispensable elements of transparency in Public Administration and active public participation in all endeavors related to environmental protection as integral components of the core principles of the Right to Intervention. According to the author:

> We need to explore avenues through which the populations impacted by the degradation of natural living conditions can actively participate in discussions on issues and the formulation of action plans. Ensuring the right to information on environmental matters is crucial for this endeavor. If this transparency were to be ensured, then popular action would gain meaning. We must agree that to achieve all this, we cannot rely on Criminal Law (Hassemer, 1998, p. 35 free translation).

In this regard, Brazil took a significant step by signing the Regional Agreement on Access to Information, Public Participation, and Access to Justice in Environmental Matters in Latin America and the Caribbean on March 4, 2018, in Escazú, Costa Rica (United Nations, 2018). This agreement introduces novel measures in the legal frameworks of Latin American nations by advocating for the right to information and facilitating popular involvement in decision-making processes concerning environmental issues. According to Article 225 of the 1988 Federal Constitution of Brazil, environmental protection should consider the perspectives of affected individuals and foster consensus-building in decision-making to safeguard and preserve the environment vital for present and future generations (Brasil, 1988).

The Escazú Agreement is grounded in Principle 10 of the 1992 Rio Declaration on Environment and Sustainable Development, also known as the Earth Summit or ECO-92 (United Nations, 1992), as well as Sustainable Development Goals (SDGs) 16 and 17 of the 2030 Agenda. This initiative emerged 26 years after the ECO-92 (United Nations, 1992) conference, responding to the persistent demands and pressures from civil society regarding the ineffective, inadequate, and uneven implementation of the right to access information, particularly concerning potentially polluting enterprises such as those in the mining sector.

Access to information is crucial for establishing monitoring mechanisms that accurately reflect the impact of industrial and economic activities on the environment. Furthermore, it enables the dissemination of collected data to affected populations, considering their cultural and territorial specificities (Barragán; Torres; Miguel, 2022). By granting access to information, citizens are empowered to exercise other fundamental rights, including the right to democratic and public participation in decision-making processes. This encompasses the development of environmental protection standards and the right to access justice.

Thus, the Escazú Agreement emerges as a vital instrument because:

[...] the Agreement recognizes core democratic principles and seeks to address the region's most important challenges, namely the scourge of inequality and a deep-rooted culture of privilege. Through transparency, openness and participation, the Regional Agreement contributes to the shift towards a new development model and tackles the region's inefficient and unsustainable culture of narrow, fragmented interests. In that vein, the Agreement vows to include those that have traditionally been underrepresented, excluded or marginalized and give a voice to the voiceless, leaving no one behind (United Nations, 2018, p. 8).

Consequently, the Escazú Agreement represents a significant step towards establishing procedures founded on open, inclusive, and participatory information-sharing, fostering cooperation, and strengthening the capacity of both states and civil society to address environmental challenges stemming from mineral exploration. It provides opportunities for commitment to sustainable development. Despite Brazil signing the Escazú Agreement in 2018, the ratification process was not initiated until September 2022, meaning the country is not yet a member of this crucial environmental treaty.

Hence, it seems that the Right of Intervention, as expressed in Brazil through Administrative Law, serves as a deterrent, ensuring protection and promoting transparency and community involvement in the formulation of regulations concerning environmental conservation. It consistently emerges *prima facie*, as the primary environmental safeguard in mining operations. Indeed, the Right of Intervention embodies a preventive nature aimed at averting tragedies resulting in irreparable losses for the environment, the communities neighboring the projects, and the broader community at large.

Thus, the Right of Intervention is more structured and appropriate for preventive response toward mining risks.

Final considerations

This study has revealed that the absence of legal and practical provisions for holding legal entities criminally accountable creates a misleading perception of fulfilling the proclaimed promises of environmental protection outlined in the 1988 Federal Constitution of Brazil.

This disarms the expectations of protection of legal assets that should be protected by criminal law and are not, thus characterizing symbolic criminal legislation that reveals itself to be an "illusion" and "dissimulation" of criminal protection of the environment in mining projects. Moreover, aside from the lack of protection, symbolic criminal legislation acts as a barrier to progress in discussions and initiatives aimed at achieving effective environmental protection.

Our findings indicate that the Right of Intervention in Brazil, as enacted through administrative law, Inhibitory Guardianship, and transparency fostering community participation in crafting environmental regulations, consistently emerges prima facie as the foremost protective measure in mining exploration. It possesses a preventive nature aimed at averting tragedies resulting in irreparable losses for the environment, neighboring communities, and society at large.

Conversely, Criminal Law should be applied as the *ultima ratio*, a last resort, in a subsidiary capacity to other branches of law, only when they prove inadequate in safeguarding the legal good. Therefore, the Right of Intervention, as manifested in Brazilian law, can serve as the initial protective measure for the environment, aiming to eliminate the ineffective and symbolic protection associated with the promised criminal liability of legal entities.

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