

# LIMITS TO ENVIRONMENTAL SOLIDARITY RESPONSIBILITY AND INDIRECT POLLUTER CHARACTERIZATION<sup>1</sup>

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## ABSTRACT

In Brazil, there is a visible lack of updating the legal reflection of the criteria that justify the incidence of the solidarity institute in cases of environmental civil liability, especially regarding its limits. The unrestricted expansion and oblivious to the technical and factual complexities of a given environmental harm, can result in asymmetries, imbalances and loss of deterrent character (by excess). On the contrary, the consolidated and defined application of the subject cases and the limits of the institute tend to strengthen environmental protection, as well as the desirable stability of socioeconomic relations. In this sense, the article aims to shed light on the still stormy theme in Environmental Law, regarding the criteria that define the limits of the incidence of the solidarity institute and the definition of indirect polluter. For that, it uses systemic reflections, focusing on the legal and economic systems, and documentary research, with a great emphasis on comparative law, based on the experiences of industrialized countries that faced problems of environmental-industrial contamination and that are compatible with the environment. Brazilian legal system and tradition. The criteria for the definition and application of these institutes are of fundamental importance for obtaining efficient environmental protection and exercised in balance with the dimensions of sustainability.

**Keywords:** environmental liability; environmental safety duties; indirect polluter; joint and several liability.

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## LIMITES À RESPONSABILIDADE SOLIDÁRIA AMBIENTAL E À CARACTERIZAÇÃO DO POLUIDOR INDIRETO

### RESUMO

*No Brasil há uma visível carência na atualização da reflexão jurídica dos critérios justificadores da incidência do instituto da solidariedade nos casos de responsabilidade civil ambiental, sobretudo quanto a seus limites. A ampliação irrestrita e alheia às complexidades técnicas e fáticas de determinado dano ambiental, pode redundar em assimetrias, desequilíbrios e perda do caráter dissuasório (por excesso). Ao revés, a aplicação consolidada e definida dos casos sujeitos e os limites do instituto tendem a fortalecer a proteção ambiental, tal como, a desejável estabilidade das relações socioeconômicas. Nesse sentido, o artigo visa lançar luzes ao tema ainda tormentoso no Direito Ambiental, quanto aos critérios definidores dos limites da incidência do instituto da solidariedade e a definição de poluidor indireto. Para tanto, se utiliza de reflexões sistêmicas, com enfoque nos sistemas jurídico e econômico, e de pesquisa documental, com grande infuse no direito comparado, a partir das experiências de países industrializados que enfrentaram problemas de contaminação ambiental-industrial e que têm compatibilidade com o sistema e tradição jurídica brasileira. Os critérios de definição e aplicação desses institutos passam a ser de fundamental importância para a obtenção de uma proteção ambiental eficiente e exercida em equilíbrio com as dimensões da sustentabilidade.*

**Palavras-chave:** *deveres de segurança ambiental; poluidor indireto; responsabilidade civil ambiental; solidariedade.*

## INTRODUCTION

Despite a significant and consensual consolidation on the principle of solidarity in environmental matters, a more detailed analysis remains relevant to unveil the criteria that justify and, consequently, limit its application. If there is any consensus on solidarity, the matter pertaining to indirect polluters and the interpretative legal criteria for their incidence seem harrowing for both doctrine and jurisprudence.

With this object in mind, this article intends to make a deep reflection on the criteria for solidarity incidence towards those who contribute to environmental harm and, in the face of such criteria, the determination of the institute's limits. Another issue faced concerns the formation and definition of legal criteria for the interpretative delimitation of joint and several liability, and the indirect polluter. Finally, there is a conceptual analysis of the indirect's image as an agent who, despite not being directly linked to the damaging activity, would have a duty to intervene and inspect it to avoid the materialization of the environmental harm as, by failing to do so, he becomes co-responsible for them.

This research is methodologically based on the analysis of the structures of the Brazilian Law, as well as on previous experiences in Comparative Law, when compatible with our legal system. The argument for the Comparative Law analysis is given by the fact that industrialized countries have already been exposed and faced several of the problems discussed here, which are still effervescent in the national legal scenario, in their courts and doctrines.

To reveal the defining criteria of the concepts faced here, we aim to provide stable and secure legal relations that, at the same time, will reflect on the achievement of an ambitious and efficient environmental protection across the Brazilian territory.

## 1 JOINT AND SEVERAL LIABILITY IN ENVIRONMENTAL MATTERS

Solidarity is a type of obligation provided for in the domestic Civil Law, according to which there is a multiplicity of subjects, whether by the competition of several creditors, each one with a claim over the full amount of the debt (active solidarity) or by the plurality of debtors, each bound by its totality (passive solidarity). Thus, according to art. 264 of the

Civil Code, “there is solidarity when more than one creditor, or more than one debtor, compete in the same obligation, each with the right, or bound, to the entire debt” (BRASIL, 2002).

Within the scope of harm repair, there is the “phenomenon of the spread of the passive solidarity in the remediation of unjust harm” (CAVALIERI FILHO, 2012, p. 64) in cases of “common causality” (FARIAS; ROSENVALD, 2012, p. 321), in which two or more people effectively compete for causing harm. The Civil Code provides that, if there is more than one cause of harm, everyone is responsible for the repair, as established in art. 942 of the Civil Code. In fact, there is a subjective plurality (of creditors or debtors) in solidarity and an objective unit that provides, under the terms of art. 264 of the Civil Code, that “there is solidarity when more than one creditor, or more than one debtor, compete in the same obligation, each with the right, or bound, to the entire debt” (FARIAS; ROSENVALD, 2012, p. 297).

Solidarity is undeniably related to the study of the causal nexus, being frequently described from the existence of harms resulting from a common causality, a complex causality, or even a causal dispersion (BENJAMIN, 1998; CAVALIERI FILHO, 2012; LEMOS, 2014). In terms of environmental responsibility, the principle of accountability is applied within the limits and semantic forecasts included in art. 225, § 3, of the Federal Constitution. In this matter, the civil liability applies in the objective type, provided for in Law no. 6,938/81, art. 14, § 1. It should be noted that both the constitutional text (art. 225, § 3) and the infra-constitutional legislation (Law no. 6.938/81, art. 14, § 1) refer to the general rule of the indispensability of proof of the causal link, starting from the expressions “behaviors and activities perceived as harmful,” in the first case, and “affected by their activity,” in the second. Obviously, without such causal demonstrations, there is no need to discuss environmental civil liability, whatever the type of risk theory in place. In this sense, it emphasizes Silva’s (1994) understanding when predicting the civil liability of those who contributed to certain harm: “The rules of solidarity between those responsible apply, and compensation may be demanded from all and any of those responsible.”

The generalized incidence of solidarity in environmental matters resulted both from the general rule provided for in art. 942 of the Civil Code, and by virtue of reference, in specific environmental legislation, to the figure of the polluter in its direct and indirect facets. This is the case of Law no. 6,938/81, art. 3, III and IV. There are also specific laws

that, unlike general environmental legislation, expressly refer to joint and several liability. In environmental matters, solidarity is justified to resolve cases in which multiple actors and activities contribute to the occurrence of environmental harm, relieving the author of the action from having to demonstrate the exact contribution of each of the participants and allowing for the charging of the full costs of the repair from any of the co-responsible.

Given the literal text presented about the concept of the polluter in Law no. 6.938/81, art. 3, IV, there is no question that all those who contribute – through action or omission – directly or indirectly to the occurrence of environmental harm are jointly liable. Civil liability for environmental harms is extremely wide and individuals, legal entities under Public or Private Law, and depersonalized entities may be liable for environmental harms (BENJAMIN, 1998). In other words, all those who contribute in some way to the occurrence of any environmental harm must be responsible for it in full, with the losses being shared internally among those who caused the harm through the exercise of the right of recourse by the one who indemnified or repaired the harms beyond their percentage of participation in the environmental harm. However, the general rule is that, if there is no demonstration of contribution, there is no civil liability in environmental matters.

Also, and aware that a good part of the environmental harm has at its source the plurality of agents and a multiplicity of sources, the doctrine and the jurisprudence<sup>3</sup> have, in a consolidated manner, decided that the attribution of civil liability should fall in a solidary and integral manner over any of those who, in some way, contributed to the environmental harm occurrence (BENJAMIN, 1998; CRUZ, 1997; LEITE; AYALA, 2010; LUCARELLI, 1994; PERALES, 1993; STEIGLEDER, 2017).

As discussed above, solidarity relies on normative support and justification for an environmental protection policy in a Rule of Law based on the need to stimulate and encourage mutual monitoring of potential polluters (FAURE, 2009). In most cases, solidarity presents a better solution for the probative problem inherent in cumulative, continuous, and progressive harm when compared to shared responsibility. It is not surprising that most national, community, and international systems adopt joint and several liability for environmental harm. However, “if not applied within reasonable limits, this may give rise to truly unfair situations” (CATALÁ, 1998, p. 190). In general, under the support of Kenneth S. Abraham’s teachings,

<sup>3</sup> For an example of STJ precedents, see Brasil (2009b; 2010).

solidarity applies to three main situations. The first, for cases in which there is a joint action by joint tortfeasors. There is also the incidence of joint and several liability in cases of independent agents responsible for the same indivisible harm. The third is a departure from the latter. As the author explains, such harm indivisibility may be theoretical – when the nature of the harm precludes its divisibility (second example) – or pragmatic – when, although the harm is liable to divisibility, the defensed has failed or could not produce this proof (third example) (ABRAHAM, 2012).

### 1.1 Solidarity and voluntary passive *litisconsortium*

Another aspect constantly used for the application of co-responsible solidarity for environmental harm consists in the constitutional configuration of the environment as a good for the common use of the people (*res omnium*) which, in this condition, is correctly understood as an “unbreakable unit” (BENJAMIN, 1998). However, there is a constant attribution that, due to this condition of goods for common use, any harm to these goods would always be indivisible. According to this understanding, being the environment a unitary object (for the common use of the people), any harm to it would also be collective and indivisible, justifying the imputation of civil liability *in solidum* to all those who, directly or indirectly (Law 6.938/81, art. 3, IV), contributed to the occurrence of said environmental harm. However, it seems wrong to assume that any and all environmental harm is always indivisible, although the environmental good, conceptually, is. Although the environment is an unbreakable unit, there are environmental degradations whose contribution by different authors may be liable to fragmentation (divisible) or not.

Due to the frequent understanding that environmental harm would *always* be marked by an indivisibility in its multiple constituent elements and the frequent impossibility of its fragmentation in its causal chains, joint and several liability have been applied in the Brazilian legal system without further evaluation of the possible fragmentation of a given environmental harm into smaller shares. Thus, due to the relations of exploitation and intervention concerning environmental goods, and given the finding of many agents or the multiplicity of sources in the occurrence of environmental harm, the courts have generally imposed passive solidarity on all those who have directly or indirectly contributed to it. This has been taking place without further reflection on the legal and interpretative criteria involving

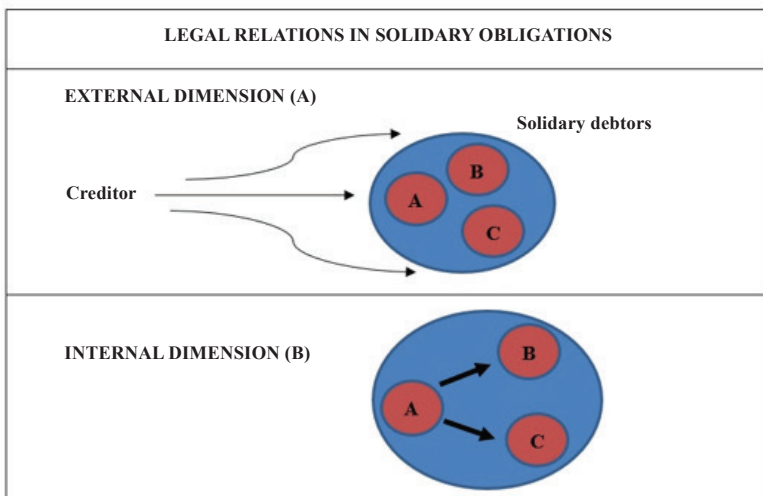
the specificities of environmental harm in particular cases. In this sense, it seems that further examination is necessary to avoid the unjust and disproportionate allocation of costs to third parties for the environmental remediation of degraded areas.

To support the majority understanding, in the sense that an environmental harm always reverberates in solidarity due to the indivisibility of the environmental good, the normative concept of the polluter, referred to in Law no. 6,938/81, art. 3rd, IV, is therefore applied. From such a device, there is a consolidated understanding that “the damaging action caused to the environment can be brought against those direct or indirectly accountable, or against both, given the joint liability due to the environmental harm” (BRASIL, 2009a). Thus, in environmental matters, all those who have directly or indirectly participated in the occurrence of any environmental degradation may be held responsible. In other words, those directly and indirectly responsible may be held responsible for the environmental harm resulting from their activities, whether commissive or omissive.

The Superior Court of Justice (STJ) has been applying joint and several liability across all causes and agents that contributed to the occurrence of environmental harm (BRASIL, 1995). Their most recent sentences have maintained their understanding, as didactically explained in the ruling of REsp 843.978/SP (BRASIL, 2013). It can be noted from the content of this judgment that, summarizing the prevailing understanding, the solidarity applied in environmental matters (Material Law) ends up leading to the application of the voluntary litisconsortium (Procedural Law) in cases against multiple agents concerning actions to repair environmental harm. This is because the Material Law determines the existence or not of a “communion of rights or obligations” (art. 113, I, of the Code of Civil Procedure) which, in turn, will lead to the configuration of a voluntary litisconsortium. Therefore, in cases of solidarity, there is always communion between creditors or solidary debtors (NERY JUNIOR; ANDRADE NERY, 2014). Under the normative point of view, there is a relationship between the provisions of art. 113, I, and the solidarity regarding environmental harm (Law 6.938/81, art. 3, IV, and art. 942 of the Civil Code). This has been STJ’s consolidated understanding.

It is essential to revisit the content of the very classic description of solidarity obligations to understand the relationship between solidarity and voluntary litisconsortium. According to the classic doctrine of Obligations Law, these relations have a double dimension of legal relations, one external

(between the creditor and the co-obligors) and the other, internal (between the co-obligors among themselves). For this purpose, in the case of passive solidarity, this “is only manifested through external relations, that is, those that take place between [...] co-obligors and the creditor” (GOMES, 1996, p. 61). Externally, “the creditor has the right to demand and receive common debt from any debtor. [...] It is up to the creditor to choose” (GOMES, 1996, p. 66). The holder of the right has the prerogative to collect the full amount of the debt from any of the jointly and severally co-obligated, at his discretion. The figure below shows a graphic representation of these solidary relationships.



**Figure 1.** Graphical representation of the external (image A) and internal (image B) dimensions in legal relationships involving joint and several obligations.

**Source:** own elaboration.

Likewise, the existing solidarity in Environmental Law has been applied, markedly, due to two factors: (i) plurality of agents; and (ii) harm indivisibility (given the understanding of the environmental good as an “indivisible” unity, as previously discussed). The plurality of causes and agents involving any specific environmental harm, also have an external and an internal dimension. There is a link between the damaging agents and their responsibilities in face of the environmental harm committed jointly, and one or more agents can be called upon, “at the creditor’s choice”. In the occurrence of collective environmental harm, this does not refer to a “creditor” *per se*, but a legitimate procedural (as it concerns the protection



of transindividual interests, under the terms of Law No. 7,347/85, art. 5). From the perspective of an external dimension (the one of the agents before society), all co-responsible individuals may need to answer individually for the integrality of the environmental harm. Here, the formation of the “communion of rights or obligations regarding the lawsuit” provided for in art. 113, I, of the Code of Civil Procedure, is dictated by the Material Law (BRASIL, 2002). In the case of joint and several liabilities, the creditor or the legitimate party has the freedom to file a claim against one or more of the co-responsible parties. Therefore, the application of the voluntary *litisconsortium* in terms of collective environmental harm results from the general understanding concerning the indivisibility of this kind of harm and, consequently, of the agents’ solidarity. Note that the purpose of the voluntary *litisconsortium* lies within its practical usefulness and facilitation of the author’s position (creditor or legal person). Thus, while the judgment on the merits of the claim does not depend on its formation, for the necessary *litisconsortium*, the subjective cumulation of the parties (active or passive) is a condition of admissibility to judge the demand. That is, without it, the process must be terminated without resolution of merit (art. 485, VI, Code of Civil Procedure).

Within solidarity’s internal dimension, the one who pays the full amount corresponding to the recovery of the environmental harm has the right to regress against the others, with a presumption of “equality of quotas” with respect to the co-responsible’s *obligatio* (GOMES, 1996, p. 66). However, within solidarity’s internal dimension, if the aforementioned environmental harm is deemed liable to be proportionally shared according to each conduct of those responsible, the one who shouldered the full repair of the harm can be proportionally compensated given each one’s participation via an autonomous right of redress against the others.<sup>4</sup>

## 2 EXCEPTIONS TO SOLIDARITY AND VOLUNTARY LITISCONSORTIUM IN CASES WITH MANY AGENTS

### 2.1 The environmental harm divisibility

Preliminarily, it is important to make a very brief reflection on the distinctions between the concepts of divisible, indivisible, and solidary obligations (GOMES, 1996). While the first two are classified as to the

<sup>4</sup> In this sense, see Brasil (2000).

object of the benefit, solidarity has its classification centered on the subjects (GOMES, 1996). Divisible obligations consist of those installments that can be split, while indivisibility does not overlook that possibility.

The indivisible obligations are only similar to solidarity, as in both the creditor may demand the integrality of the provision from the debtors, but that is where their affinities end (FARIAS; ROSENVALD, 2012, p. 305). On the other hand, although both concepts (indivisible and solidary) rule out the application of the principle of divisibility (general rule of obligations), in the case of indivisible obligations it is the *nature of the obligation* that prevents the mandatory allocation in as many fractions as there are subjects, while in solidarity it is the will of the parties or the provision of the Law that prevents the imposition of this division (COELHO, 2012). Solidarity is not presumed but must result from the Law or the will of the parties (art. 265 of the Civil Code).

Thus, despite the undeniable existence of common connections between invisibility and solidarity, they are not necessarily linked to each other. It can be argued that the indivisibility of the provision's object is not an immediate reason for the immediate imposition of solidarity, however, if the divisibility of the object can be successfully proven, there will be an obvious reason for the withdrawal of solidarity. So much so, that divisibility is the general rule in civil obligatory benefits (art. 257 of the Civil Code), being indivisibility (art. 259 of the Civil Code) and solidarity (art. 264 of the Civil Code), exceptions (FARIAS; ROSENVALD, 2012). Due to the conceptual proximity between indivisibility and solidarity, conceptually constituted in frontal opposition to divisibility, nothing prevents the qualities of indivisibility and solidarity from being brought together under the same obligation. In this sense, Orlando Gomes goes so far as to say that "there is no difficulty in resolving situations arising from obligations with an indivisible provision, as long as the need to discipline them is recognized by the rules regarding joint and several obligations" (GOMES, 1996, p. 74-75).

As a partial conclusion of the above, it should be noted that both doctrine and Brazilian jurisprudence have generally attributed indivisibility as an environmental harm inherent characteristic. In such a way, the fact that some environmental harms are technically and scientifically divisible is, thus, forgotten. That is, they are liable to fragmentation as to the causal participation of the agents involved in determinable fractions.

We will use the example of several agents performing the irregular

disposal of industrial waste in a given area, causing its contamination. Considering that the various damaging sources are liable to be identified due to the existence of their products on-site, there is a possible determination of the percentage of participation of each source or, at least, the attribution of their market segment. Also, there is the case of several companies promoting the irregular disposal of chemical products in a particular area, contaminating it. In both cases, if each company's participation can be scientifically determined whether due to the area's divisibility (sources identified in different areas) or the degradation factors (residues or agents that can be differentiated), the result will be an emblematic case of divisible environmental harm. Whenever it is technically possible to determine the fragmentation of harm to fit each of the generating sources' percentages, as well as their consequent contamination, there will be a divisible harm (FARBER; FREEMAN; CARLSON, 2014). As a legal consequence, when divisible, each of those responsible would be obliged to repair only their contribution installments, in what is called shared or collective responsibility, as seen above. On the other hand, whenever there is indeterminacy there will be solidarity.

It is important to highlight that the divisibility of the environmental harm is not new to the International Environmental Law. In this sense, the Convention on Civil Liability for Harm Resulting from Dangerous Activities signed by the Council of Europe in Lugano in 1993, contemplates the possibility for the explorer to release joint and several liability if he can demonstrate that, with his activity, he contributed only for a specific part of the harm attributed to it (art. 6, item 3). In such cases, the person responsible would be obliged only by the percentages or areas that concern themselves.

Divisibility is, therefore, a reason for the fragmentation of harm between their respective responsible parties, allowing greater justice and efficiency to the civil liability system. There is talk of justice because, on the contrary, even those who have contributed in a well-defined percentage and whose responsibility is partial for the harm, in case of joint and several liability, the latter may be (unfairly) held responsible for the whole, encouraging irresponsible behavior by the other agents involved (as a rule of small and medium-size). Critical to this understanding of the Lugano Convention, Martin (1994) believes that the reference to the divisibility of the harm would contribute to the constitution of what he calls "fake solidarity." However, it is undeniable that solidarity, if applied without the

proper balance and well-defined limits, causes real injustice, stimulating environmentally irresponsible conduct.

The direct procedural consequence of adopting this understanding, which is defended here, will consist of the alteration of the *litisconsortium* regime applied to the case. If not, let's see. In cases of possible fragmentation or divisibility of environmental harm, one would be faced with the possibility of a necessary *litisconsortium* (arts. 114 and 115, sole paragraph, of the Code of Civil Procedure), and all known participants should be brought to the file.

We believe this position seems fairer, as it aims to combat the *moral risk* of stimulating irresponsible behavior by medium and small companies that, confident of the economic situation of the larger companies involved, are stimulated by solidarity to act irresponsibly while certain that the legal focus will be on those that often hold greater economic power, despite participating in smaller percentages of the harm or having greater commitments to environmental safety. Not infrequently, in a system of joint and several liability, the companies that end up responding effectively for the environmental harm are those that have greater financial reserves, although they might demonstrate greater rigor in complying with environmental standards (CATALÁ, 1998).

It is in this sense that the Comparative Law presents interesting solutions in the search for greater balance and equity. In North American Law, e.g., section 107 of the *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA), also known as “*superfund*,” establishes a rather large number of parties that may be deemed responsible, from the owner to people who, in the past, deposited garbage or dangerous substances on the site (FARBER; FINDLEY, 2010). The object of such legislation is to establish the facilitation and criteria for the civil liability for cleaning up places contaminated by toxic chemicals. Based on this legislation, the government can charge the costs of cleaning contaminated areas from these actors (CASTRO; REZENDE, 2015).

In general, the configuration of the divisibility or indivisibility of a given environmental harm is an international criterion to serve as a defining element of which of the liability system will be applied. If the harm is indivisible, we will be facing a joint and several liability case, but if the harm is liable to be split, then it would be under the incidence of the shared liability (several liability). The practical (and procedural) consequence of this is that, in this case, the plaintiff must necessarily sue all involved,

being able to charge only the percentages allocated to each of the divisible harm portions. In the case of indivisible harms, solidarity allows the author (government) to activate any of the co-responsible provided for in the legislation (CERCLA). The North American courts have held that, in cases of environmental harm in which there is “indivisible harm,” there is solidarity (joint and several liability) between the responsible parties, with all of them responding for the loss, either jointly or not. An exception to this rule of solidarity is when one of those responsible can prove that the injury caused is divisible, in which case there is a need to include all those responsible in their shares. The precedents set in this direction are *the United States v. Monsanto Co.*, 858 F.2d 160 (4th. Circ. 1988) and *the United States v. Chem-Dyne Corp.*, 572 F. Supp. 802 (S.D. Ohio).

In the latter, the Court stated:

If the harm is divisible and there is a reasonable basis for apportioning the harm, each defendant is responsible only for the portion of the harm caused by themselves [...]. In this situation, the burden of proof regarding the apportionment rests with each defendant [...]. On the other hand, if the defendants caused indivisible harm, each one is liable for the entire harm (UNITED STATES, 1988, our translation).

Clearly, the burden of proof regarding the “divisibility” of the environmental harm due to contamination falls on the accused, to limit their liability (FARBER; FINDLEY, 2010). In such cases, the plaintiffs will only be able to charge from those brought in the lawsuit, and to the extent of each one’s participation. While the rule on toxic contamination is the responsibility to be objective and solidary, the exception for divisibility stems from the Common Law principle that each participant must be held responsible for the percentage corresponding to their participation and culpability, in a representation of the Polluter Pays Principle (GREENBERG, 2018). This divisibility is configured in cases where the contamination is geographically isolated, or the multiple operators acted in different and well-defined temporal periods – a combination of geographic, temporal, and volumetric/toxicity factors (GREENBERG, 2018).

Before it is said that this would lead to the non-remediation of “orphan parcels” (damaging everyone’s fundamental right to the environment ecologically), there are important examples from the North American Law that we consider absolutely compatible with our system. First, if any of the polluters is identified only after the lawsuit is filed, they can be either integrated into the deed or there can be an individualized action concerning their contributory portion. Also, a complicating factor in obtaining the

reparability of environmental harm may be the insolvency or unavailability of a potentially responsible person. To that end, there is an important solution provided in North American Law to maintain “equitable factors” for the agents responsible for environmental harm, according to which, in the case of divisible contamination, any “orphan” percentages (resulting from insolvency or disappearance of one or more of those who are accountable) shall be apportioned by the other responsible persons in their respective proportions. Thus, a 9th Circuit decision was made, according to which “the costs of the orphan shares are equally distributed among all the potentially responsible parties, as is the case with the costs of cleaning contaminated areas” (UNITED STATES, 1997, our translation). This consists of a hybrid model, in which shared responsibility is justified by divisibility, but in the event of insolvency or dissipation of one of the parties, its percentage is redistributed proportionately among the others, maintaining fairness and equity.

In North American Law – specifically CERCLA –, if the harm is divisible, the government or a co-responsible (at the right of recourse level) must sue all other responsible parties. In such cases, each party may be liable only for their share. This is an exception to the general rule that enforces the joint and several liability, while, in such cases, shared or collective liability (several liability) is applied.

On the other hand, the rule of solidarity has been applied in Brazilian Environmental Law to all those who somehow collaborated for the occurrence of environmental harm, without any assessment of any environmental harm potential divisibility *in casu*. Considering that the Material Law determines *the existence of a communion of rights or obligations* and that, in these cases, the creditor or the legitimate party may, at their criteria, charge one or more defendants with the full value, there is a voluntary *litisconsortium* to the matter in question. In terms of prognosis, with the expansion of scientific knowledge and the consequent traceability of contaminating products, there is a future tendency for debates about the inadequacy of environmental solidarity to arise regarding cases of *divisible harm*, in which it is possible to determine each agent’s percentage of contribution in carrying out environmental harm.

The matter is currently ignoring the analysis of these elements, enforcing solidarity for indivisible harm to all cases in a consolidated manner, even for those in which it is possible to demonstrate the divisibility of the harm. However, the technical capacity for description and the anticipated

knowledge about each agent's percentage of participation in a given environmental harm may reflect the need for change within the now consolidated understanding of the application of the voluntary *litisconsortium* to all cases of environmental harm. This change indicates the need for the author to list all known and identified participants whenever the harm is divisible or fragmentable (*litisconsortium* necessary). This understanding privileges efficiency and equity, as it favors the calling of the largest number of responsible parties in the judicial process, reducing the risks of default and jurisdictional measure ineffectiveness. Otherwise, the widespread and unrestricted application of joint and several liability give cause to a second overload of the legal system in terms of regressive rights, allowing more time for the dissipation of assets and insolvencies of the other co-responsible (who have not been immediately sued). Thus, in cases of environmental harm proven divisibility, the burden of proof of such divisibility lies, of course, on the defendant(s), and all agents must be listed. Observe that, if an agent responsible for part of the divisible harm has issues honoring his share after being listed, that "orphan" percentage will be redistributed proportionally among the other co-responsible, in a hybrid format of shared responsibility.

## **2.2 Application of the *litisconsortium* required for cases in which the fulfillment of obligations depends on or might affect third parties' activities or assets**

Notwithstanding the general rule that all those responsible for the environmental degradation are jointly and severally liable through the formation of a voluntary *litisconsortium*, there are exceptions. In accordance with the content above, environmental harm cases liable to divisibility call for shared responsibility and, consequently, the necessary *litisconsortium*. In this case, it would be excluded from the voluntary character of the *litisconsortium*. Another example of an exception to the voluntary *litisconsortium* in matters of environmental harm consists of the cases in which a given environmental liability decision will necessarily affect the "third-party legal-patrimonial sphere, when, therefore, the formation of the necessary passive *litisconsortium* is enforced" (MILARÉ, 2015, p. 441).

These are cases in which "the decision imposes an obligation on a third party that is not part of the passive pole of the action," where "the rule of the necessary passive *litisconsortium*, so that the adversary and the wide



defense are not violated” is applicable (FREITAS; CARDOSO , 2017, p. 182). This understanding of the application of the necessary litisconsortium to specific cases where the effectiveness of the legal decision necessarily depends on third parties has jurisdictional precedents, as demonstrated by a solid thread from the STJ (BRASIL, 2009c; 2014).

For this purpose, we highlight REsp 843.978/SP, of action against illegal allotters in a case of illegal land allotment in which the acquiring owners are changing the physical situation of the property and promoting environmental degradation. The court ruled that, despite the general rule of solidarity and voluntary litisconsortium in cases of environmental harm,

[...] As the only way to ensure full utility to the jurisdictional provision, the necessary litisconsortium between the developer and the acquirer is enforced if the latter, by their own hand, changes the physical situation or carries out works on the lot that will ultimately need to be demolished or removed (BRASIL, 2013).

The imposition of the litisconsortium happens in these because the measures required in the lawsuit will affect and necessarily depend on third parties not included in the demand. Thus, these third parties must necessarily be included in the application under penalty of violation of the fundamental right to due process, under the terms of art. 5, LIV, of the Federal Constitution (FREITAS; CARDOSO, 2017). The urgency to intervene with the third parties’ material and legal assets also causes a shift in the incidence of the solidarity matrix towards shared responsibility, with each of the participants being held responsible for their participation in the necessary conduct. Due to the necessary inclusion of third parties in the passive pole of the deed, a safeguard is important, since, otherwise, there may be a risk of offending the constitutional principles of due legal process, contradictory, and broad defense (DANTAS, 2010 ).

This is also the case when a demolition order is addressed to any entity other than the current owners or third parties in good faith. As an example, there is the case of filing a public civil action requesting demolition against the construction company, ignoring the existence of homeowners and the constitution of a condominium. In this case, the necessary legal consortium must be formed with all those who have their assets affected by the possible judicial decision, under penalty of invalidity of the procedural acts for violation of the constitutional guarantees of a broad, contradictory defense (art. 5, LV, of the Federal Constitution), and due legal process (art. 5, LIV, of the Federal Constitution).



## 2.3 Negligible contributions

Another possible reason for the removal of joint and several liability and, beyond that, the absence of civil liability on the part of a party occurs when the party has been proven to have produced insignificant contributions to the harmful result. The practical difficulty would be defining the criteria to determine that the contribution was actually negligible and insufficient to configure harm and object of judicial analysis. What takes place in such cases is that “the ‘portion of the harm’ that corresponds to the party probably does not reach a significant level as to be considered repairable.” (CATALÁ, 1998, p. 192)

Observe that the reflection on negligible contributions is covered by the matter inherent to cumulative causality, under the specific denomination of *minimale Kausalität* (minimal causality) (GONZÁLES, 2005). This concept is configured when the harm results from the sum of an uncountable number of causal contributions. However, if considered individually, these activities are not only allowed (lawful) but their contribution, taken in isolation, is so small that it becomes irrelevant to the occurrence of the harmful phenomenon. An example of these cases would be the emissions of motor vehicles derived from the burning of fossil fuels.

The matter is stormy for the doctrine in Comparative Law and very little, if anything, debated at the national level. Two solutions arise. On the one hand, admitting that there is accountability, even if it is difficult to establish its causality due to the excessive number of contaminating agents and individual contributions, which are too small. For this understanding, joint and several liability or a shared responsibility through equal quotas, in case of doubt, would apply (GONZÁLES, 2005). On the other hand, for those who believe that there should be no accountability in cases of insignificant contributions, it is argued that the economic cost of enforcing this accountability (transaction costs) is too high since control mechanisms that are too expensive would be necessary to determine the authors and their quotas and, for this reason, disproportionate in relation to the benefits resulting from the litigation (GONZÁLES, 2005).

Thus, it seems unfair to impose joint and several liability to parties who had a negligible contribution to the global harm. The same applies to inefficient and disproportionate liability for insignificant contributions by quotas alone. So much so that, to date, lawsuits attempted to hold car

owners jointly liable anywhere in the world. However, on the other hand, it also seems inappropriate to completely exonerate groups that have contributed to such pervasive harm. In this sense, as an example, there are demands at the level of climate litigation against automakers due to the harm resulting from their products. A more promising alternative is to internalize widespread harm through anticipated (*ex ante*) or *ex post* obligations consistent with the contribution to financial funds. These contribution obligations would arise from the fact that they belong to certain groups or categories, *e.g.* the owners of motor vehicles, and the contribution measure could, for example, depend on the annual quota traveled (in mileage) in the exercise of a year (GONZÁLES, 2005). In these cases (of atmospheric pollution and contribution to global warming), the most promising action would be amassing such funds from values collected from companies within the market segment that contributed to climate change, to the detriment of individual subjects. Each company's percentage would be proportionate to the market share it holds (Market Share Liability).

### 3 THE INDIRECT POLLUTOR ISSUE

In terms of civil liability, the general rule is “that each party should be responsible for their own acts,” something called direct responsibility or by own action (CAVALIERI FILHO, 2012, p. 204). Exceptionally, however, Civil Law provides for the possibility that a person may be held accountable for someone else's doing, this is called indirect responsibility or by someone else's action. This, however, cannot take place in an “arbitrary and indiscriminate” manner, being limited to the cases provided for in art. 932 of the Civil Code, the content of which provides for the exhaustive cases of people who, due to their duty of custody or surveillance, will be held responsible for other parties' deeds. Thus, in matters of general civil liability due to other people's actions, while oblivious to the configuration of any causal link, the Private Law has resorted to the “channeling” technique, assigning responsibility to people who, despite not having directly contributed to the injury, are held responsible by virtue of their duty of custody, surveillance, or care. It should be noted again that such forecasts in Private Law are exhaustively established in the list of art. 932 of the Civil Code.

In environmental matters, the imposition of solidarity finds its grounds

in a set of conducts that have given rise to environmental harm, either by harmful action or the violation of a duty of custody, surveillance, or care, and that are synthesized in the expression of environmental safety duty. Therefore, the criteria for defining solidarity and indirect civil liability in environmental matters are closely related to the interpretation arising from the joint analysis of art. 942 of the Civil Code and Law no. 6,938/81, art. 3rd, IV.

As well noted by Antunes (2016, p. 562), “[the] definition of the indirect polluter is one of the most controversial topics within the Brazilian Environmental Law, and there is certainly no doctrinal or jurisprudential consensus regarding the extension of the concept”. In a study on the subject, Rômulo Sampaio points out that “while welcoming the figure of the indirect polluter, Law no. 6,938/81, art. 3, IV, did not define it. It is, therefore, an indeterminate legal concept” (SAMPAIO, 2013, p. 147). The fulfillment of this concept must, therefore, be attentive to the contribution character of the agents involved. However, the immediate conclusion of this reasoning is that the environmental solidarity does not eliminate the necessary demonstration of the causal nexus of the causes and co-causes for the occurrence of the harm. In other words, to characterize solidarity, the “concurrent” conduct (active or omissive) for the configuration of the harm or its aggravation must be demonstrated. This is the basis of common plural causality. So, the foundation of solidarity is due is based on the fact that the different behaviors (active or omissive) “give rise to the result” (CAVALIERI FILHO, 2012).

Even in cases under the incidence of strict liability, there is a need to identify the causal link as a cause and consequence relationship at a probative level. Just as the core of subjective responsibility is culpable conduct, in its objective matrix, the focus of legal analysis is always the causal link. Therefore, it is still required for cases of multiple agents.

We must observe that environmental harm can be caused by multiple sources and causes, which can be direct or indirect. As mentioned, solidarity consists of a process of expanding the limits of the potential responsible for the environmental harm. In favor of its application, when and if done with balance, it “provides excellent *ex ante* incentives for mutual monitoring between potential polluters” (FAURE, 2009, p. 259). All of this even before any environmental degradation takes place. Depending on the limits and criteria used to sustain this expansion, there will be a response to the optimal level of internalization of externalities or, alternatively, in case of

an exaggerated expansion, there will be an unfair overload on economic activities, affecting the desirable balance in legal, ecological, and economic relations. If, on the one hand, it is desirable to maximize the processes of environmental harm remediation by force of Law and its attribution to those who contributed to these harmful results, on the other hand, the delimitation of who is responsible must be fair and proportional. An overly broad system tends to transfer responsibilities to third parties, which can cause an undesirable secondary side effect: the irresponsibility of direct polluters and the liability of third parties, even if unaware, express legal duties or conditions to prevent the occurrence of such environmental harm.

Thus, the adoption of some criteria for defining and limiting the boundaries of solidarity in their function of expanding civil liability is so relevant, preventing those who have contributed to the problem from getting away with the harms perpetrated. If solidarity is a solution found internationally and nationally for cases of causal plurality, it also presents serious risks of over deterrence. An overly extensive interpretation can cause secondary side effects (which may be harmful to the environmental protection itself).

Although little discussed within the national context, the possible negative consequences of solidarity were, and still are, constantly debated at the level of Comparative Law. It is not because joint and several liability are openly adopted by a legal system that we should not reflect intensively on their scope and limits to avoid side effects, excessive deterrence, and injustice.

According to Michael Faure's warnings, solidarity may give rise to the violation of the basic principle of fair and efficient compensation, which provides that an agent should be responsible, in principle, for compensating only in the measure and proportion of their contribution to the losses (BERGKAMP, 2001; FAURE, 2009). The author also highlights that the dimension of the side effects depends on the legal regime chosen and the solvency or insolvency of the agents involved. Not infrequently, the co-responsible party, even if their share of liability is determinable or irrelevant, is liable for the total cost of the harm caused by the dissipation (insolvency) of the other co-responsible parties. Thus, they are held responsible for parcels and harms their activity did not cause (FAURE, 2009).

Also, solidarity tends to stimulate the "deep pocket" effect, known as the risk of the victim or legitimized going after the party with more resources and financial capacity, to the detriment of the party that has produced the greatest contribution to the occurrence of the harm. Thus, there may be an

unwanted distortion of the Polluter Pays Principle (greater application at the regulatory level) and the Accountability Principle (enforcement of civil, administrative, and criminal responsibilities in environmental matters). This focus on holding companies accountable depending on their economic size presents a paradox and moral risk. If companies are punished for their greater financial means, one may be punishing those that are also the ones that most comply with environmental regulations, thus “saving” those of smaller size, environmentally deficient, and using scrapped technologies, and which, therefore, convey less environmental security (CATALÁ, 1998). Too much breadth and extension of the potentially responsible persons, under the ‘indirect’ label, discourages the offer of environmental insurance regarding these activities due to the insecurity and unpredictability of the criteria that will allow the activation of these companies for harms caused by third parties (CATALÁ, 1998). Therefore, the elaboration of a careful, constitutional, and technical definition is essential.

### **3.1 What is the degree of participation of a third party for their joint and several civil liability in environmental matters? Indirect liability criteria**

It is important to highlight the supposition that, even in an objective responsibility matrix, there is an essential need for configuration and evidence of the respective causal link between conduct (action or omission) and harm (FARBER; FREEMAN; CARLSON, 2014 and LEITE; AYALA, 2010). If we compare the subjective civil liability system to the objective matrix, there is a clear shift in the emphasis from conduct (act-based), in the case of subjective civil liability, to the effect activity-based, in the case of the objective matrix (ABRAHAM, 2012). In this sense, while the first is more focused on the proof of the subjective conduct of the perpetrator of the harm (in their culpability), the second will be evaluated based on the duties that may be imposed on an activity and that put third parties and assets at risk of individual interest if not fulfilled. In an objective matrix, with the occurrence of harm (or intolerable risks), there is the submission to a necessary test to assess who directly caused it and who had the duty to avoid it (indirect). Such duties are linked to knowledge of risk, normative attribution of duties of care, and material conditions (competence and power) to intervene and audit. The indirect responsibility is linked to the failure to fulfill such duties. Here, there is the notion of duties of safety

or environmental care, generically provided for in art. 225 of the Federal Constitution and in several specific infraconstitutional laws.

Therefore, it should be made clear that the activity causing environmental harm may have one or more competing causes. This would be the notion of the direct polluter provided for in Brazilian legislation. For didactic purposes, it can be said that the co-causers (those who by action or omission have directly contributed to the harm) are bound to compensate for the harm by a physical or natural causality. The indirect figure's civil liability, however, results from a normative attribution process (normative causality) resulting from the violation of environmental duties. In other words, although they did not cause the immediate degrading activity, there would be a duty to intervene or inspect and, by failing to do so, they have decisively contributed to the occurrence of the harm.

In the case of commissive acts, there must be a demonstrable contributory action (even if by probability) for the occurrence of the harmful result. Cases of omission give rise to a greater need for further criteria to define the elements that violate these duties of care, according to which the indirect responsibility is attributed. In the absence of a demonstration of omission that violates environmental care duties, there is no place to argue about indirect liability. According to Min. Teori Zavascki's words on such criteria, solidarity depends on an examination of whether this "omission was 'determinant' (that is, sufficient or concurrent cause) for 'materializing or worsening the harm'" (BRASIL, 2011).

There are at least two currents that modulate the indirect civil liability in different ways in cases of environmental harm. On the one hand, the current affects a greater breadth and scope concerning the indirect polluter, with a defense for the application of strict liability, modulated by the theory of integral risk, not only to the directly responsible but also to the indirect (BENJAMIN, 1998; STEIGLEDER, 2017). On the other hand, there are understandings in the sense that the indirect civil liability should adopt a standard inherent to the created risk theory (SAMPALIO, 2013; ZAPATER, 2013). For the first stream, in addition to not talking about exclusions of liability and not requiring an analysis of the illegality of the activity, the evidentiary burden falls mainly on the defendant, in the sense that they have to prove the absence of a causal link or breach of duty of security. Herman Benjamin describes the indirect, exemplarily, in the following terms:

[...] The word [polluter] is broad and includes those that directly cause environmental harm (the farmer, the industrialist, the logger, the miner, the speculator), as well as those who indirectly contribute to it, facilitating or making the loss possible (the

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bank, the public licensing agency, the engineer, the architect, the developer, the broker, the conveyor...) (BENJAMIN, 1998, p. 37).

In many cases, the solidarity in environmental matters submitted to the STJ (BRASIL, 2003; 2005) has been applied in this sense. However, attention is drawn to the fact that, even with a broad conception of the indirect polluter, there must be proof of causality (BRASIL, 2017b). In other cases, although unspoken, the decision does not seem to make much difference regarding the responsibility attributed to the direct agent of the so-called indirect (BRASIL, 2017a). In defense of a maximalist interpretation of joint and several civil liability, STJ has presented decisions that understand not only the solidarity leading to the factional consortium (BRASIL, 2009a) but also the impossibility of denouncing the dispute (BRASIL, 2009b). The synthesis of this maximalist perspective is given by the Ministers' vote. Herman Benjamin, stating that "[p] for the purpose of ascertaining the causal link in urban-environmental harm and eventual passive solidarity, those who do, those who do not do when they should, those who do not care to stop who does, those who remain silent when it is up to them to report, those who finance whoever does, and those who benefit when others do" (BRASIL, 2010). On the other hand, the application of the theory of risk created for the accountability of the indirect has repercussions on the analysis of the possibility of exclusion of liability (force majeure and unforeseeable circumstances). Yet, instead of the full internalization of the risk (as occurs in the theory of integral risk), the theory of created risk accounts only for the risk that might be the cause of a given harm.

Regardless of the theory to be adopted, it seems to us that the civil liability for environmental harms requires, on the one hand, the demonstration of the co-causer for the occurrence of the harm and, in the case of the indirect, the demonstration of violation of a duty of care or of safety. These duties are legally imposed. The violation of such duties is directly related to the (private) attributions or (public) powers of the entities involved. In this sense, these activities must be aware of the risk involved and also have the ability to intervene and audit. In this sense, there must be proof that the indirect has failed to fulfill a normative duty of care, protection, and environmental safety. In other words, the co-causer is necessarily linked to the harm, while the indirect one does it by omission or offense to a normative duty.

Following this thought, José Rubens Morato Leite observes that the exoneration of civil liability based on risk theory takes place when the risk



was not created when the harm did not exist or when the harm does not have a causal relationship with the person who created the risk (LEITE; AYALA, 2010). Otherwise, there would be an undeniable excess of protection, creating inadequate social, legal, and economical stimuli. That is, in the case of taking responsibility for those who could not “have even collaborated to avoid the harm, compensation is prioritized without the observation of any preventive aspect” (ZAPATER, 2013, p. 346).

According to Zapater (2017), the preventive and dissuasive character would be discouraged, dismantling the character and potential of civil liability as a legal element that induces risk management behaviors. Therefore, the direct agent, as well as the co-causer (action or omission), respond jointly for the environmental harm resulting from their conduct which, actively or by omission, generated the risks that resulted in harm in a second moment. The indirectly responsible person (public administration, financial institution, partner, or economic collaborator, among others) may be held responsible when there is proof that they knew about the third parties' risk situation and, having means to intervene, did not act to contain it, therefore, avoiding their required duty of care or environmental safety (BRASIL, 2009c).

On the other hand, attention must be paid to the temporal issue within the cause and consequence relationship. In this sense, the failure in the duty to audit the indirect (public or private), for example, must be prior to the harm, and never past it (FARIAS; BIM, 2017). An exception to this general logical rule lies in the sense of the obligation called *propter rem*. These obligations accompany the immovable property, resulting from it, even if the degrading activities were carried out by third parties prior to the acquisition of the property or possession by the indirect. However, we must observe the fact that this provision finds a legal seat for specific cases of forest protection (Law no. 12,651/12, art. 2, § 2). It is, therefore, a specific and exceptional forecast, causing the attribution of responsibility without the need to demonstrate contribution or duty of care (knowledge of risk and ability to avoid harm).

## FINAL REMARKS

Despite a doctrinal and jurisprudential consensus on the application of the solidarity institute to the reparability of environmental harm, the matter concerning the limits of this application is quite stormy. A critical



reflection of the criteria for its imposition is still relevant after the first moment of broad consolidation of solidarity and civil attribution to the indirect. In this sense, of temporal maturation of the solidarity institute, which the present article intends to shed light on.

First, it is necessary to describe the classic distinction between the system of shared responsibility and that of solidarity. These systems consist of internationally applicable standards for cases of environmental harm caused by a plurality of agents. Enforcing different criteria, they place the burden of proof and remediation of orphaned areas on different actors. The shared one favors greater attention to the responsibilities and participation of each of the parties that have caused potential harm. On the other hand, it refers the burden of proof regarding the demonstration of the participation of each of the agents (in specific installments) and their percentages to the affected parties. Still, in a pure model, if there is no such proof, the areas will be “orphaned,” with a heavy burden on the owner or the person deemed responsible for the remediation. Solidarity, on the other hand, predominantly burdens those accused of participating in the environmental degradation, relying on them to produce proof of their non-participation in the harm. If they fail to comply with this probationary burden, they may be held responsible for the whole, which includes “orphaned” areas. If applied too broadly, solidarity carries a moral risk of discouraging preventive and risk management behaviors, given the expectation that a vast chain will be bound to rectify the harm if it occurs. Sometimes, activities outside the production of risk are affected by the solidarity in our system, leading to a side effect of legal uncertainty and weakening of the civil liability’s deterrent function. Although there is a clear choice for the solidarity system within the Brazilian Law, this does not rule out the provision, in some cases normative, for shared responsibility, as in the emblematic case of the National Solid Waste Policy Law.

After addressing solidarity in its general matrix, there was a need to tackle the subject of the nuances of the application of this institute to environmental matters and cases. It is at this point that this text demonstrates the importance of a conceptual and structural delimitation of the solidarity institute. A sophisticated analysis of the institute has the function of allowing the boundaries of solidarity to be delineated, demonstrating the cases in which, exceptionally, this is not applied. Among the cases quoted in this article and capable of excluding the incidence of solidarity, there are events (i) of divisible or fragmentable environmental harm, as well as

those submitted normatively to the regime of shared responsibility; (ii) in which the fulfillment of the harm recovery obligations necessarily depends on the activities or assets of third parties; and (iii) negligible contributions.

Finally, the indirect polluter is addressed, as a legal figure that may be held responsible for the environmental harm directly caused by other activities. For example, these are cases of civil liability of the State by default; financial institutions for the financing of harmful activities; customers of a waste plant that comes to irregularly close its operations; buyers of products that may be the cause of harm during transportation; or disregard of legal personality.

The detailed analysis of such definitions shows that those directly responsible are those who contribute to environmental harm in their causes and co-causes, in the exercise of their activities and omissions immediately identifiable causally. On the other hand, the indirect consists of actors who, in spite of not participating directly in the activity that causes environmental harm, end up contributing to the violation of some normative duty of environmental safety that can be attributed to them (normative causality). After a critical analysis, the search for the conceptual delimitation of the indirect polluter is capable of revealing the legal criteria for the delimitation of the scope of its civil imputation. Thus, it can be said that the direct polluter consists of those activities that, when producing risky situations, directly contribute to environmental harm, by either action or inaction. The indirect polluter, in turn, is liable when, despite not directly producing the risks involved, there is a violation of a normative duty of safety and environmental care. This violation of the duties of environmental safety stems from their knowledge of the risks, ability and competence to avoid them, and, finally, from the configuration of an omission to intervene and audit.

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