ABSTRACT: This article analyzes the recent innovations introduced in Brazil by the Environmental Criminal Act n. 9.605/98 in the light of the principle of legality. Replying some scholars that argues it violates the “principle of legality” because it fails to adequately describe the proscribed conduct or provide for due process of law, the author argues that the Brazilian Environmental Crimes Act introduce in our legal system a consensual criminal justice, with real results in the enforcement of environmental law. Connected with the Act n. 9.099/99, which mitigate procedural principles as obligation and unavailability of prosecution and introduce new institutions such as criminal liability of legal entities, probation, plea bargain, relaxing the rules of substantive and procedural guarantees for the application of alternative sentences by a Special Criminal Courts, this new statute allowing a rapid response to protect the environmental interests.

KEYWORDS: principle of legality, consensual criminal justice.


1 Introduction

Post-industrial society or "risk society" has produced dizzying technological advances and increased well-being of the individual. However, it has also produced an equally dizzying array of risks – both direct and indirect. These risks derive from techniques used in (among others) industry, biology, genetics, nuclear energy, information technology, and have the potential to cause irreparable damage to the global community. The recently enacted Brazilian Environmental Crimes Act (hereinafter the ECA”) could become an important means of protecting Brazilian society from risk. However, some scholars argue that
it violates the “principle of legality” (no crime, no penalties, without law) because it fails to adequately describe the proscribed conduct or provide for due process of law. This article argues that the ECA does not violate the principle of legality.

It rather offers an efficient legal method for addressing environmental crimes and reducing post-industrial risk. It further argues that undermining or weakening ECA would be a catastrophic mistake that could threaten not just the local Brazilian environment but the global commons as well could become, for it is just an example of a second speed criminal law. It introduces procedures including the plea bargain and alternatives to imprisonment that mitigate the severity of penalties and allow for prosecutorial discretion. Neither the plea bargain nor prosecutorial discretion existed previously in Brazilian criminal law.

Moreover, being an eminently competitive and hedonistic society leads to new criminal procedures, which use this same technological advance to produce particularly harmful results, forcing the State (regulator) to take on new functions of inspection and surveillance.

Of course, these new interests and new valuations of old interests also just lead to the constitution of new legal and criminal assets, resulting from ecological to cybernetic or financial delinquency so that the "expansion of criminal law" has, as consequence, the introduction of new crimes, but also the e of rules for the allocation and the relativization of the principles of political-criminal security.¹

Thus, the environmental criminal law constitutes an important legal instrument in the protection of these diffuse assets, since the damage caused to the environment has a high social cost, by putting at risk not only life and health of individuals but also the perpetuation of the human species, moreover nature itself, which should be preserved and the object of protection, due to its value for present and future generations.²

However, we notice that the conventional criminal law, drawn from a theoretical, eminently individualistic, has encountered serious difficulties to support this new criminal law, which no longer seeks only the protection of individual assets, but also of collective interests.

As it is known, administrative rules have been insufficient for the protection of the environment, considering the lack of infrastructure and dismantling of environmental
agencies allied to political and economic pressures, which ultimately prevent an effective protection of environmental assets.

Much has been discussed, however, about the effectiveness of criminal law in the protection of collective goods, since the criminal system would only have authority over, in *last resort*, of property and individual interests, such as life, health, freedom and equity.

On the other hand, several authors, forgetting about the diffuse and interdisciplinary nature of environmental legal interests and the need for a preventive way of tutelage, end up accusing the criminal protection of the environment law for offenses to principle of legality and the exhaustive criminal type to, which they pledge to contain, in excess, opening criminal types, criminal law in white and elements of the normative type.

This essay examines the principles of legality and typicality, offering an overview of the legal institutions that form the cornerstones of the penal system.

Then I intend to demonstrate how much of the criticism addressed to environmental crimes law (Act n. 9.602/98) reflects, in fact, the difficulties of the liberal-individualist paradigm to justify ecological crime, which being a globalized crime, typical of a risk society, has its own special features, modes and behaviors that make difficult its description in the restricted rules of standard classic criminal law.

Finally, I analyze the arguments presented by doctrine to justify or reject an environmental criminal law, as well as the proposal of a new criminal law in order to protect the transindividual interests, such as the environment.

2. Principle of legality and the new environmental crimes in Brazil

The principle of legality guides the modern criminal judicial system, acting as a limit to state power, preventing it from applying sanctions captiously, such as occurred in primitive societies, as well in Antiquity and the Middle Ages.

Indeed, as proclaimed by the Universal Declaration of Human Rights and Citizen of 1789, the principle of Legality is considered a fundamental right, stated on the Brazilian Federal Constitution in its article 5, XXXIX, declaring that "there is no crime
without a previous law which defines it, nor punishment without a previous legal imposition.\textsuperscript{3}

Just as another side of the same coin, this principle also acts as security for citizens, who no longer may be criminally punished - however reprehensible that it was his behavior - if their action or omission is not previously described in a catalog of ideal conducts.

The principle of legality arises with the formation of national States, when justice is no longer a dispute between individuals and becomes the monopoly of the State, so that interested parties are to submit to an external power that imposes itself as the judiciary and political power, until, as in the twelfth century, appears the figure of the prosecutor.

This new character, without precedent in Roman law, presents itself as a representative of the sovereign, the king or lord - since the crime is no longer considered a violation of a victim's right, to be seen as an offense against the person Sovereign.

The prosecutor says "it is true that this man defrauded another, I, representative of the sovereign, I can say that the sovereign, his power, he does order reign, he established the law were also injured by that individual. So, I also put myself against him.\textsuperscript{4}

The principle of legality has a strong political meaning, it is also an indicator of the regime adopted; whether it is respected or not, turns it is possible to identify if that state is democratic or totalitarian.\textsuperscript{5}

The core of the Principle of Legality is composed of two clauses:

a) \textit{Nullum crimen sine lege}: (No crime without a law) There can be no crime unless so defined by law.

b) \textit{Nulla poena sine lege}: (No punishment without law) A crime exists only by operation of law, so the form and the degree of punishment cannot be assessed outside the law.

Four prohibitions are derived from these two clauses:

a) \textit{nullum crimen nulla poena sine lege escrita}: (No punishment by unwritten law) the criminal should be written, therefore it is prohibited the use of customary law in \textit{malam parte};

b) \textit{nullum crimen nulla poena sine lege stricta} (Prohibition of analogy), which means that the penal analogy bans, for the protection of the perpetrator, the transferance
of one legislation to another unlegislated situation, in order to justify the punishability of the perpetrator. It, however, does not apply when in favour of the perpetrator, where it is permitted.

c) *nullum crimen nulla poena sine lege praevia.* (Prohibition against ex post facto law) It is forbidden to impose *ex post facto* sanctions for a crime, or to introduce a more severe sanction or to intensify the sanctions. Punishability and punishment must have been legislated beforehand.

d) *crime nullum nulla poena sine lege certa.* (Prohibition of unclear terms in criminal statutes) The elements of a crime and respective penalty must be defined exactly. Only sufficiently specified sanctions can instruct the judge precisely in which particular behavior is punishable and how.

In fact, Beccaria, in 1784, referred to the principle of legality by stating that “only the laws may indicate the penalties for each offense and the right to establish criminal laws can only be held by the legislator, who represents all society throughout the social contract”⁶, although only from the nineteenth century it has been introduced in Western positive law, through the work of Feuerbach (1981) that the systematized as follows:

a) *senna lege nulla poena:* every penalty presupposes a law;

b) *crimen nulla poena senna:* any punishment should be conditional on the practice of a forbidden action;

c) *nulla poena sine poena legali:* every penalty should be linked to injury of a legal right.

Thereafter, all these formulas have been condensed by Feuerbach in *apothem nullum crimen nulla poena sine lege.*⁷

Typicality is the element of the crime that is more directly linked to the principle of legality (*nullum crime sine lege nulla poena certa*), and is one of the pillars of the liberal conception of the offense, having the function of selecting the relevant criminal conduct, indicating to the citizens what actions or omissions are prohibited by criminal law and at the same time ensuring the exclusion of those that were not foreseen by the legislator.

It was the end of the seventeenth century that the German doctrine coined the phrase *tat be stand* to define the elements of the crime and the criminality of his assumptions. To Beling (1906), however, the typicality was completely independent of and
guilt and unlawness, before it constituted a mere objective description of the material elements of the offense, without reference to values or the will of the agent.

This position, however, will suffer severe criticism for withdrawing from the theory of crime the analysis of social values which are necessary for the identification of criminal conduct. In 1915, however, Max Ernst Mayer, in his Treatise on Criminal Law, says that criminality is not merely descriptive, but indicative of the unlawfulness. In other words, not all typical behavior is unlawful, but all circumstantial behavior is typical of illegality, in any typical behavior is likely the beginning of illegality, just like the smoke indicates there is fire somewhere. Therefore, the typicality is the *ratio cognoscendi*, for this reason, the subjective and normative elements must also compose the criminal legal kind.

Indeed, we tend to see things in the behalf of its value, so that the judgments of fact, in order to explain the phenomenon and develop it as a data in its causes and consequences, the scientist produces positive judgments of reality: S is P, while in the value judgments it forms comprehensive synthesis in which the predicate is linked to the subject through a subjective assessment of a purpose: if A should be B.

So often we find value judgments among the legal kind, as the crime of disobedience to lawful order of a civil servant, as it will always require an assessment of the judge to reach whether or not the order was legal, since the normative elements link the typicality and unlawfulness.\(^8\)

The typicality, therefore, must be seen as the first valuable moment of the crime, followed by the unlawfulness and culpability, so that only the conduct that fulfills all of these requirements is able to be punished, which reveals its function in ensuring that only conduct that is fit the legal model can be sanctioned by criminal law.

The legal kind, in addition to being an imaginary structure, an abstract model of conduct formulated by linguistic signs, contains values that constitute the real substance and validity (*essendi ratio*) of illegality, so that the typicality is deleted when an action appears justified under a special cause of the unjust exclusion, if that happens, the action is not unlawful.

In terms of reality, however, the legal kind is constituted by: a) an active subject: one who performs the criminal act, b) the passive subject: the holder of the legal violation, c) material object: the thing or the body that suffers the effects of the offensive conduct; d) objective elements: the external behavior of the agent which forms the core of the
criminal type, e) subjective elements: the internal conduct of the agent, i.e., the consciousness and the will embodied in deceit and guilt, but also the subjective element of the unjust, that is the mood of the active subject towards a specific purpose, such as the crime of extortion through kidnapping, which requires, in addition to the guile and guilt, the will of the subject asset or an advantage in obtaining price for their rescue; f) regulatory elements, which require specific value judgments for their understanding, as the concept of honest woman" in the crime of kidnapping (art. 219 CP). 9

Though, while the evaluation of typicality is an analysis between the human behavior and abstract frame, described into type, the typicality occurs when behavior of an active subject fits the frame, being the most efficient instrument for the identification of the unlawfulness.

Welzel, in 1930, developed, from the analysis of the final intention of the agent, the final theory of action, where the typicality consists of an objective part, the legal description of the conduct, and a subjective part, which is the will of the agent (intent and guilt), which no longer integrates the culpability. In fact, it is now conceived as a social disapproval of the perpetrator, who rather breaks the law than act under its statements.

In 1931, Edmund Mazger stated that the type is not simple description of unlawful conduct, but the ratio essendi of the unfair, that is, the reason for it, its very foundation. So the theory of action, this way, must be seen as part of unlawfulness, even the author so far as to say that a murder committed in self-defense would be irrelevant in the realm of criminal. 10

In 1970, Claus Roxin, set the basis to the structure of criminal law from the political perspective, for him before consisting on a legal phenomenon, the crime is a phenomenon that should be valued according to the criminal policy, developing the Objective Imputation Theory, reporting that the discussion between "causal" and "final", which dominated the doctrine in the first 25 years after the war, is now silenced, and both concepts have only a small number of followers in Germany, since both are based the criminal justice system categories, immunized against social advances and criminal policies goals. 11

For the Professor of the University of Munich, in crimes of result the causal imputation is inadequate, instead it is accepted that human action has created a legally undervalued and this risk has been made in the result. This requires, therefore, to ascertain: a)
the action has created a risk (in the sense of equivalence of conditions): b) this risk is legally undervalued, c) has resulted in the completion of the typical result.\textsuperscript{13}

Thus, in order to conduct criminal law to consider in a objective manner the results of crime, overwhelming issues related to causality, the theory of objective imputation does not disclaim liability of the author for created risks, even if result was due to the action of others.\textsuperscript{14}

Anyway, the theory of typicality, as conceived in the liberal state paradigm, extends the principle of legality, requiring in addition to the previously law that criminal type must be defined exactly, so that its description is tight and precise, allowing the citizens to know of the fit prohibited conduct.

Not always, however, the legislator may accurately describe the conduct as the crime of theft, the taking of another person's property without that person's permission or consent with the intent to deprive the rightful owner of it, Sometimes, the legislator has to use one more open description, because the foundation the penalty is more in any breach of the requirements of a particular social role, such as environmental criminal act which in its art. 68, assert "Do not comply an obligation with relevant environmental interest who ever has legal or contractual duty to do so." In such cases the legislator remits to outside the criminal sphere the definition of duties that should be accomplished by perpetrator.

To Roxin, from a garantiste perspective, it is possible to criticize in such type, not the absence of description of the conduct, but the unclear terms of duties, which should be observed by perpetrators. Indeed, if these duties were firmed in a clear way, it would be sufficient to satisfy the requirements of the clauses of legality.\textsuperscript{15}

In fact, to doctrine, a normal type is one that only contains a nucleus and objective elements, meanwhile, abnormal types contains beside those objective elements, normative elements, which impose to the judge the comprehension of concepts found outside the legal system, such as "pollution of any kind," "abuse", etc. and subjective elements, which refer to special order to act as "scientific or academic goals"

In fact, in almost all descriptions of criminal behavior, it can be found, even in a implicit way, normative and subjective elements, such as fraud and blame, which is the specific intent to commit the crime.

Many authors claim that the law of crimes against the environment made a \textit{tabula rasa} of the principle of \textit{exhaustive} criminal type, considering a) the \textit{normative elements}
of the type, as in the expressions "obligation of environmental importance," "landscape, ecological, touristic, artistic, historical, cultural, religious, archaeological, ethnographic or monumental value"; b) Open statutory criminal provisions, to be complemented by other laws, including criminal nature, such as laws, regulations, standards, administrative acts, judicial decisions, permits, licenses, permits, reports, records, prohibitions, and c) the imprecise concepts and fluids used in expressions such as "rare species", "act of abuse," "alternative resources", "indirect damage" "special protection", such levels, "significant destruction ", "unfit for human occupation."

Others denounce the criminalizing character of this recent law, for typifying various behaviors that should not go beyond administrative violations or misdemeanors at most, violating the principles of minimum intervention and insignificance.

Miguel Reale Jr. points to what he sees as an inconsistency art. 32 of the environmental criminal Act which imposes a penalty of three months to a year and a fine for "performing an act of abuse, mistreatment, or injury relating to native or migratory wildlife and pets" greater than the penalty imposed the Criminal Code for “exposing to danger the life or health of a person under his authority, custody or supervision”, which imposes only two months to one year in jail or a fine.16

Another inconsistency would be in § 4, I and VI of art. 29, which establishes a cause of increased penalty for the crime of "killing, trapping, hunting, capturing or using native or migratory wildlife, pets without permission, license or authorization from the competent authority, or in violation obtained with " the fact that crime be committed " against the species considered rare or endangered, even if in the place of infringement," because in this case, the criminal offense does not discriminate the rare or endangered species.

Nevertheless, this standard is complemented by the Convention on International Trade in Endangered Species of Wild Fauna and Flora in Endangered Species (CITES), of which Brazil is a signatory, and which is in full force, as approved by Decree No. 54/75 legislature and promulgated by Decree No. 76.623/75, where is found the list, renewed and periodically released.

Would it be plausible, therefore, for the criminal law to identify any rare and endangered species, if new species are periodically included?
Milaré and Costa Jr., criticizes another cause of increased criminal penalty provided for in this type, since it does not define the methods or instruments capable of causing mass destruction.\footnote{17}

However, even if deeply analyzed, the offense of felony murder is also not filled with fluid and indeterminate legal concepts such as "other unworthy motive," "futile reasons," "otherwise insidious or vicious," "another feature that makes it difficult or impossible to defend the victim"?

In my opinion, what is important to emphasize is that the criminal offense referred to in Article 29, \textit{caput}, fails not to include domestic animals among the material objects of crime, giving rise to the atypical behavior of killing animals that have an emotional attachment so great with humans, being able instead of inanimate things, to reciprocate affection received.\footnote{18}

Marcelo Leonardo also considers the doctrinal divergence so common in the doctrine and jurisprudence, as proof of the unconstitutionality of § 1 of article 32, which equates "who does painful or cruel experiments on live animals, even for educational or scientific purposes, when there are resources alternative "to the crime of" doing acts of abuse, mistreatment, or injury relating to wild animals, domestic or domesticated, native or exotic ".\footnote{19}

For the author, the fact that Wladimir Freitas and Gilberto Passos maintain that the "alternative sources" described in the type, are the various forms of anesthesia, while Edna Cardozo Dias believes they refer to techniques that rely on chemistry, mathematics, radiology, microbiology and other means to avoid use of live animals in laboratory experiments, demonstrates the unconstitutionality of this criminal provision.

Many other criticisms are addressed to the law, such as art. 35, I and II does not define the prohibited toxic or explosive substances, art. 37 does not describe the animals threatened with extinction; art. 38 does not define what is permanent preservation forests; art. 45 does not describe what is hardwood; art. 50 which does not describe the vegetation or dune fixation is protective mangrove; art. 56 does not define the products or toxic substances and art. 62 does not clarify which is the property specifically protected by statute, administrative or judicial decision.

The type referred to in art. 40, which criminalizes the conduct guilty of causing indirect harm to protected areas, modified by replacing the old editorial board of the
"cause significant damage to flora, fauna and other natural attributes of protected areas", is alleged to include many fluid and imprecise concepts, among which is "significant damage", and "other natural attributes," allowing even the figure of the indirect damage caused by guilt.

The crime of "causing pollution of any kind at such levels that result or may result in damage to human health or cause the death of animals or significant destruction of flora, "also has come under strong opposition from the doctrine, for containing many vague and ambiguous expressions, and does not define what it is and what types of pollution there are, nor their prohibited levels.

The § 3 of that Article, which provides for the crime of "failing to adopt, when so required by the competent authority, the safeguard measures in case of risk of serious or irreversible environmental damage", is criticized for allowing a simple administrative act to create a criminal offense, when even the President cannot do.\(^\text{20}\)

Art. 68, in turn, by typifying the conduct of "allowing he who has the legal or contractual duty to do so, the obligation to comply with environmental importance", will grant a very large judgment to the judge to establish what is "relevant environmental interest."

Many of these criticisms, however, show the difficulties that the traditional doctrine has found to justify environmental criminal law, although it is nothing new about the criminal justice system to include open criminal types, criminal laws in white or indeterminate legal concepts, such crimes of drug trafficking (narcotic substance, or to determine physical or psychological dependence), damage (flammable or explosive), larceny (unfair advantage), crimes against public safety (exposing the danger life, physical integrity or assets), and many other examples.

In the case of Toxic Act (Law No. 11.343/06), for example, the criminal offense does not describe what are considered narcotics or substances that determine physical or psychological dependence, and nothing authorizes us to consider it unconstitutional because it violates the principle of legality (art. 5, CF XXXIX).

It must be remembered that international wildlife trafficking is the third greatest illegal trade in the world, preceded only by drugs and arms trafficking. According to the United Nations Environment Program (UNEP), about one hundred species disappear every day, setting a true genocide of around 12 million animals of the Brazilian forests every year,
with catastrophic consequences for this country, which has the greatest biodiversity on the planet.

On the other hand, it is almost impossible for the legislator to describe the prohibited conduct in an airtight manner, so it is often necessary to resort to general rules, which do not completely individualize the prohibited conduct, transferring to the judge the necessity of using general guidelines or rules not described the type, but in an extravagant law and even doctrine.

In the environmental crimes that are crimes of danger, the criminal type often describes conduct, without the aid of a harmful outcome, is consumed with its own risk (actual or presumed), although part of the doctrine understands that this danger should be an assumed mental representation, with a subjective judgments ex ante sufficient for a glimpse of its existence, while others claim that the dangerous character cannot be an abstraction, and there should be a real danger that needs to be proven in court.

However, understanding that the categories of crime - typically unlawfulness, culpability - must be observed, developed and systematized through the prism of their political-criminal function, the criticism addressed to environmental criminal Act, although not totally unjustified, tends to be based on a theoretical framework that is designed only for the defense of individual legal rights, the reason for which they do not manage to offer a consistent basis to the new political-criminal institutions of protection of collective goods.

In particular, one must keep in mind that while individual goods are easily identifiable, collective goods are not directly linked to the person, more connected with the operation of the system, which makes them difficult to determine.

Indeed, in its origins, type theory was meant to contain within it just a descriptive formula of the objective circumstances of the crime. However, today one can not give up elements of value, so the judiciary will always have the task of decoding the symbols contained in the standard language, which only then will make sense and have clarity.

In fact, what is to be avoided, with the exhaustive, criminal types are vague and imprecise as those prescribed in German Criminal Code, under the Nazi regime, verbis:

He will be punished who commits an offense that is punishable by law or declares that deserves punishment according to the basic thought of the criminal law and feeling of the German people. If no specific criminal law can be applied directly to the crime, this will be punished according to law whose basic thought is more applicable.
Despite, however, the technical inaccuracies of the legislation, which in most cases can be resolved by the rules of interpretation, one must take into account that the main environmental issue, far from the regulation, is much more in the lack of enforcement. Since the deficit of implementation of environmental laws does not arise, as a rule, from the inaccuracies of a open typicality, or over criminal law and white concepts of indeterminate, but far more tangible factors.

This phenomenon also occurs in core countries such as Germany and France — the inefficiency of the social environmental criminal law stems from a deficit of implementation, both in the administrative and judicial areas, than the bitter result of increased crime and ecological impunity.

In fact, among the difficulties faced by environmental criminal law can be highlighted on the one hand, the technical inability and lack of political will of the police work in the prevention and repression of environmental crimes, and on the other the failure of federal agencies, state and local members of the National Environmental System (SISNAMA), which although have common responsibility to protect the environment (art.23 CF) can not give account of their duties, and even when they do, in most cases, despite being required by law, fail to forward the notices to the prosecutor, so that it can start the persecutio criminis.

In the judicial sphere, an environmental training deficit of magistrates and members of the public is also evident, and is in general, fragmentary and limited, so that their representatives often underestimate the environmental crimes in relation to classical criminal delinquency, Even the actions of the public prosecutor are dependent on individual initiatives, since the ecological crime is not considered a priority by the State.

Moreover, when a prosecutor acts consistently, convictions are rare, or very mild, which contributes to the discredit of the environmental criminal law.

3. The future of environmental criminal law

To Mir Puig retribution and special prevention are not ahistorical options, and conform to the different conceptions of the state, not only mattering the identification of
the function of the sentence in the abstract, but also the role that criminal law plays in each model, as in the theocratic state penalty was analogous to divine retribution and in the absolute state instrument of submission of his subjects, the classic liberal state, which sought control of power through the law, the potentate will be subjected to punitive ideals and abstract principles such as equality of all before the law.27

In the interventionist welfare state, however, which is characterized by taking sides in the social game, the criminal law tends to adopt special preventive tools, which are becoming increasingly inadequate against the model of strict legalism of classical liberal state.

We must, however, not forget that between the two world wars, under the aegis of the welfare state, there were several criminal totalitarian systems, until the post-war developed the concept of social and democratic state of law which, without abandoning the social concerns, reinforces their legal limits toward liberal view, not more punitive retribution but limiting the prevention of crimes.

Currently, given the globalized economic processes, privatization and deregulation, the interventionist state, the producer of goods and services, has been replaced by the regulatory state, which seeks to continuously control the activities that are legal but dangerous.

This new state model "of prevention," "watchdog", makes use of new cognitive mechanisms of protection, so that activity without a license or obstruction of inspection procedures gives rise to criminal and administrative penalties, as the axis of the system prevention becomes communicative, substantially farther away from the moment of injury.28

Jacobs, for example, from the systems theory of Luhmann, understands the function of criminal law is not to protect legal goods, because if we take this position to the extreme should we accept the Nazi penal system, which elected as legal " the sentiment of the German people."

For Jacobs, on the contrary, the function of criminal law is to strengthen the validity of constitutional rule, while expectations of conduct counter factually stabilized, so that the violation of the rule gives rise to the application of a penalty, as a response to immunizing the state, so that the standard remains in effect, despite its violation.
The question, however, is not as simple as it seems, so the theory Jacobs has come under severe criticism as to how Garcia-Pablos authors state that the system proposed by Jacobs is uncritical, conservative and technocratic, for leveraging the expansion of criminal law, although there are other, less harmful and functionally equivalent methods, which can fulfill this function, such as administrative law.

In this context what we are witnessing is a crisis in law, with the absence or ineffectiveness of legal controls, the illegality of power, and legislative inflation caused by the pressure of specific groups and disordered growth of legislation extravagant.

In any case, this crisis cannot be understood without taking into account the crisis of the welfare state itself, given the inadequacy between structural forms of liberal state and functions of welfare state.

It will lead to a conflict between the claims of modern scientific-legal paradigm - with its own limits and bans - and the social demands of post-industrial paradigm, for the collective rights, through positive benefits.

It is that the provision of goods and services to specific social groups cannot not always be made by state in a general and abstract way, which is why many times these rules have to be highly discretionary, contingent and abstracted by the principles of certainty and strict legality.\(^{29}\)

In particular, environmental criminal law acquires autonomy in post-industrial society, with the function, in last resort, to assist and ensure the enforcement of administrative protection of the environment, although in some cases it can play a direct and independent role.\(^ {30}\)

Indeed, the pace of progress dictated by machines might explain why, for so long, the protection of the environment against the threats of industrialization has been faced by institutions and norms inherited from an already surpassed world.\(^ {31}\)

In any case, there is not a consensus on the effectiveness of environmental criminal law, since many lawyers believe that despite its importance, the environment should not be protected through criminal law, a task that would be better exercised by civil and administrative law, even as the criminal justice system should be used only as a last resort, taking the chance of oversimplification and loss of legitimacy of criminal law.
The Frankfurt School, for example, especially through criminal law minimum proposed by Winfried Hassemer and his disciples, proposes a liberal model of criminal law by restricting its object to a core group of individual legal rights, like life, the freedom, health and property, ensuring the maximum substantive and procedural guarantees to those charged.

Although the attacks on the environment are considered one of the two or three major types of threat in modern times, Hassemer believes that the role of criminal law has proved largely counterproductive to environmental policy, so that expansion of criminal law, especially in Germany, has been paradoxically responded to with a decrease in environmental protection.  

For the author, classic legal goods such as life, limb, health or heritage for the most part are also violated when damage occurs to the environment, and given that these goods have already been given a specific criminal supervision, through types such as criminal damage, injury, disturbance of the peace of others etc., it reveals a totally unnecessary environmental criminal law.

The legislature - by organizing the criminal law of environmental protection in one document, sought to preserve environmental values e to make the normative message more accessible to citizens.

It turns out that this administrative ancillary function to criminal law loses visibility and credibility among the majority of citizens, since the subject is usually subject to direct negotiation between management and the potential offender.

Moreover, by continuing to include the deprivation of liberty as a punishment, the environmental criminal law encounters severe difficulties specially to identify the perpetrator, since this type of crime is most of times product of an extremely complex combination of desires, whether deliberated by the decision of an entire board of directors of a company or by the whole direction of an industrial plant.

There is a natural difficulty in knowing whether the violation resulted from an act or an omission, so it always occurs that prosecutors choose almost randomly two or three people, who end up offending the rules of authorship and participation, sacrificing the very dignity of the criminal law, although this problem can be resolved through the criminal liability of legal entities.
Hassemer deems environmental criminal law to be unnecessary, since this type of crime does not require the rehabilitation of the defendant, and in addition, the fines are ineffective, since the value ends up impacting the price of the product to be paid by the citizens.

On the other hand, the positive general prevention of environmental criminal law is void, because people have realized its ineffectiveness, because the defendants are almost never convicted, although every day they are aired in the media news of new environmental crimes, making this law merely symbolic, not effectively protecting the legal goods that are proposed, serving only for the boasts of political class, since that legislation is a low cost way for the state to calm the spirit of the complaints of society.

Thus, the author proposes the removal of claim prevention of environmental criminal law, excluding any criminal protection that can only be achieved by administrative ancillary, such as those criminal types of settings, although he admits the possibility of keeping the crimes of common danger.

Finally, Hassemer says that, whereas in a post-industrial society it would be nonsense to propose a return to liberal criminal law, modern crime requires a Right of Intervention, which would be a new branch of law able to condense felonies, torts, misdemeanor, administrative law and tax law, allowing the relaxation of rules of imputation and the guarantees of liberal criminal law.\textsuperscript{35}

This new law is situated between the modern criminal law and administrative law, and must renounce personal reproval and prison punishments, although it can even include forms of collective penalties applied by administrative authorities.

Schünemann argues, for example, that although the environmental devastation began in Antiquity, through the deforestation of the Mediterranean countries and the cultural destruction of Pre-Columbian America, it is starting in industrial society, with the increasing demand for raw materials and the consequent production waste beyond the regenerative capacity of nature, that the environmental issue takes a place among the legal interests to be protected.

According to the professor from Munich, the Frankfurt School's position is misguided, because when advocating the protection of the environment through individual rights, it ends up confusing the instrument of protection with the very object of protection.

The author goes so far as to assert that:
The German constitution, maintained until now by an alliance between ruthless ignorance and desire for profit, protects more through individual guarantees the folly of an individual, however immoral they may be, than conditions for the survival of humanity, which only appear in the Constitution so secondary

That for him the legal systems of industrial society are illegitimate, since unaware of the minimum ecological requirements, thus they can be compared to the societies of the nineteenth century, which were lacking in relation to slavery.\textsuperscript{36}

Considering that the function of criminal law is to protect legal interests of a subsidiary, it falls to environmental criminal law to protect conservation of bases of subsistence of mankind, although the constitutions of the industrialized countries still prioritize individual interests, such as the German Criminal Code, which only since March 28, 1980 introduced in its special part (section 28), crimes against the environment, and even so leaves much to be desired in terms of the types.

Indeed, a secularized industrial society must protect the legal interests which are intended to provide a prosperous life for the individual and the community, so that the most important function of modern criminal policy should be to protect the environment.\textsuperscript{37}

To address what he called the crisis of environmental criminal law Schünemann\textsuperscript{38} proposes to answer the following questions: a) is environmental damage by itself a criminal act? b) how should, in a state of Right, competence, criminal and administrative law on environmental goods to be protected be distributed? c) what is the most appropriate structure for environmental crimes?

The first issue to consider is that while in traditional antagonism criminal conflict is between individuals and social groups, contemporary conflicts in the environment occur between a) the present generation and future generations, which can suffer the harmful effects of environmental crimes, b) human interests and needs of nonhuman species, c) the material interests of consumption and contemplative and immaterial interests of different social groups.

Thus, for the author, given the predominance of an overly anthropocentric view, the boundary that separates environmental devastation from its conservation only can be traced, in the abstract, between the present and future generations, regardless of whether we adopt a utilitarian view of Bentham, Rousseau's contract, the veil of ignorance of Rawls or the categorical imperative of Kant.
Another problem is whether it is acceptable that there are children starving while environmental issues are discussed related to an agricultural activity that can extinguish a particular animal species or the production of GM foods?

It is that the establishment of anti-legality limit in the consumption of environmental goods, we cannot adopt a categorical prohibition as "Thou shalt not kill", for example, but something akin to a collective bargaining between the present generation and future generations, or groups with immaterial environmental concerns, although the first group is always dominant.

On the other hand, given that no company includes in its calculations the current and future environmental costs and hedonism prevails in the ethics of the consumer society, only through an effective state intervention will it be possible to protect environmental assets, and the question becomes which is most effective form of intervention, whether it be administrative, contentious-administrative jurisdiction or criminal jurisdiction.

It is certain, however, that the global ecological threat requires a tiered review of individualism, i.e, which aims to protect only the sphere of freedom, towards prioritizing the protection of vital interests of future generations.

Another sensitive issue in environmental regulation is to describe exactly where the boundary between permitted use and environmental damage, as only environmental law may establish general conditions that must be specified through administrative actions, so that often the environmental crime type will describe the violation of administrative duties, such as disobeying an administrative prohibition or conducting a conduct or activity without proper authorization.

For Schünemann, crimes like this should accept certain legal uncertainties over a period of transition, even if this reduced uncertainty can be compensated by the introduction of a special procedure for environmental offenses of lower offensive potential.39

Traditionally, the simple administrative authorization, even if illegal, excludes anti legal crime, which causes the executive to take the place of legislation to establish the limits of environmental criminal law, since administrative acts contrary to law is annulled, except in cases of serious error when they are considered automatically void and invalidated ex tunc.40
Finally, Schünemann proposes the abandonment of the doctrine of criminal law as an accessory to administrative law, since it is very easy to evade compliance with administrative requirements of environmental laws.\(^{41}\)

In Brazil, however, this ancillary condition is mitigated, since that even authorized by the administration, the conduct may lead to environmental damage, and in this case it would be framed in the frame of the criminal offense referred to in art. 54, *verbis*: "To cause pollution of any kind at levels that cause or result in damage to human health or cause the death of livestock or destruction of significant flora".\(^{42}\)

Noteworthy is the position of Jesus-Maria Sanches Silva, for whom the right of intervention proposed by Hassemer can lead to a loss of symbolic function of criminal law to protect a matter of such importance for the survival of the planet.

Thus, Silva-Sanchez proposes a dual configuration of the system of criminal law, with 2 levels of imputation rules and principles, where collective goods are protected by the criminal law of a second speed, with guarantees and the easing of ban of custodial sentences and fines imposed, not by administrative bodies as claimed Hassemer, but by their own criminal instances.

Therefore, the author seeks a "midpoint" between a broad and flexible Criminal Law (undesirable *soft law*) and a rigid minimum and Criminal Law (impossible), since that today's society is not prepared to accept a minimalist criminal nor an intended Criminal Law maximum.\(^{43}\)

This point would be made by a criminal justice system at the same time functional and secure, safeguarding the classical model of attribution and the core principles for intangible assets of crimes against individuals, with the maintenance of the prison sentence, and in contrast, the controlled relaxation of imputation rules (criminal liability of legal entities, criminal transaction, charging objective, etc..) and criminal-political principles (legality, typicality, and unavailability of compulsory prosecution etc.) for crimes committed against collective goods like the environment.

Indeed, taking as its starting point the relationship between the guarantees of the imputation system and the severity of the penalties that result from its application, Silva-Sanchez believes that the problem is not so much the expansion of criminal law, but the expansion of the deprivation of freedom, so the decrease in guarantees and "rigor" dogmatic,
could be legitimate, since there was a counterpart in the generalization of penalties, private law and criminal repair, in place of deprivation of liberty.\textsuperscript{44}

4 Conclusions

The principle of legality is a cornerstone of modern criminal law, ensuring protection against the arbitrary imposition of sanctions on the State to reach the sphere of freedom of citizens.

Universalized from the Declaration of Rights of Man and the Citizen, it was one of the main instruments that coined the rising bourgeoisie to protect the citizens against the arbitrary justice present in the ancient \textit{regime}, although the rigidity of such formal guarantees were in fact a sort of counterpart to the severity of the penalties at the time, so that Silva-Sanchez says, any attempt to convey the reality of the nineteenth century to the present day, seems to be utopian and anachronistic.\textsuperscript{45}

On the other hand, one must keep in mind that the criminal types that describe crimes that offend the fundamental rights of classics such as life, health, liberty and property are usually punished with custodial sentences, and accordingly must comply an exhaustive taxonomy as closed as possible, so that the precise description of the crime is at its limits, even though a type will almost never do without an evaluative interpretation, since there will always be subjective elements present in them.

Notwithstanding, in a complex society like today, where social-environmental risks produce uncertain, long-term and in most cases, irreparable results, it is understandable that the environmental criminal law use open types, open statutory criminal provisions and types of abstract danger more than classical criminal law.

Thus, the criticism addressed to the Environmental Criminal Act shows only that the classical theoretical tool can no longer support new crimes arising from the risk society such as environmental crimes, due to the inability of institutions of industrial society to maintain control over the risks from activities that may damage the social-environmental unpredictably and irreversibly, as has occurred in \textit{Chernobyl} and more recently with the problem of "mad cow" disease.

The production and consumption of products whose harmful effects are still unknown, which may occur many years later, leads to a high degree of uncertainty, so this is
the reason why the damage result crimes have been proved unsatisfactory. Therefore, the Brazilian legislator translating into the language of environmental criminal law the principle of precaution, increasingly use the use of abstract danger types.

Nevertheless, it appears that the irreversible expansion of criminal law to protect this new social reality, marked, among other things, by environmental crime, must be accompanied by a relaxation of rules of substantive and procedural guarantees for the application of alternative sentences, removing thus the deprivation of liberty, except in exceptional cases where the accused would have the guarantees of the classical model.

In Brazil, it would be possible with specific changes in legislation, in order to allow a greater number of environmental crimes defined in Act No. 9.605/98 and other extravagant laws, to undergo the procedure of the Special Criminal Courts, which would introduce in our legal system consensual criminal justice, with real results in the implementation of environmental criminal law.

The effectiveness of the Environmental criminal Act has been made possible in light of the innovations introduced by Act No. 9.099/99, which mitigate the procedural principles as the obligation and the unavailability of prosecution and introduce new institutions such as the criminal liability of legal entities, the probation, and the plea bargain, as an example of the American system, allowing a rapid response to environmental crime.

After all, the Brazilian consensual criminal justice requires civil repairing of damage, besides alternative penalties such as funding for environmental programs and projects, reclaiming, maintenance of public spaces and environmental contributions to environmental, public and cultural entities. These innovations can contribute in a positive way to the social effectiveness of the environmental legal system.

5. Notes


3 Approved by the National Assembly of France, August 26, 1789. Captured on http://www.hrcr.org/docs/frenchdec.html

A pet is not just a thing but occupies a special place somewhere in between a person and a piece of personal property. For example, in Corso v. Crawford Dog and Cat Hosp., Inc., a case involving the question of the proper measure of damages for mishandling the body of a dog that was euthanized, the court stated that companion animals should be seen as occupying a status above that of ordinary property. This court now overrules prior precedent and holds that a companion animal is property status for an individual.

See Thomas G. Kelch, Toward a non-property status for animals, 6 N.Y.U. Envtl. L.J. 531 (1998). Kelch: Some cases have gone so far as to challenge the ordinary notion of animals as property. For example, in Corso v. Crawford Dog and Cat Hosp., Inc., a case involving the question of the proper measure of damages for mishandling the body of a dog that was euthanized, the court stated that companion animals should be seen as occupying a status above that of ordinary property. This court now overrules prior precedent and holds that a pet is not just a thing but occupies a special place somewhere in between a person and a piece of personal property. [A] pet is not an inanimate thing that just receives affection; it also returns it.


18 See Thomas G. Kelch, Toward a non-property status for animals, 6 N.Y.U. Evntl. L.J, 531 (1998). Kelch: Some cases have gone so far as to challenge the ordinary notion of animals as property. For example, in Corso v. Crawford Dog and Cat Hosp., Inc., a case involving the question of the proper measure of damages for mishandling the body of a dog that was euthanized, the court stated that companion animals should be seen as occupying a status above that of ordinary property. This court now overrules prior precedent and holds that a pet is not just a thing but occupies a special place somewhere in between a person and a piece of personal property. [A] pet is not an inanimate thing that just receives affection; it also returns it.

19 Marcelo Leonardo, Crimes ambientais e o princípio da reserva legal e da taxatividade do tipo em direito penal (Environmental crimes and the legal reserve principle and the taxativity of the kind at the criminal law), REVISTA BRASILEIRA DE CIÊNCIAS CRIMINAIS [R.B.C.C.], 161, (2002).

20 Édis Milaré; Paulo José da Costa Jr. Direito penal ambiental: comentários à lei n. 9.605/98 (Environmental criminal law: comments on the act n. 9.605/98), 37, (2002.).


24 Winfried Cf, Hassemer. A preservação do meio ambiente através do direito penal (the environment preservation by the criminal law), Translated by Carlos Eduardo Vasconcelos, adapted for publication by Paulo de Souza Mendes, Revista Brasileira de Ciências Criminais [R.B.C.C.], 27-31, (2002).
25 Claus Roxin apud Jesus Maria Silva Sanches, Ob cit. p. 143. “Oppose the “modernization”, moreover, to advocate at all equivalent to “criminal law class”, in which the thief still suffering a conventional pen, while the economic or ecological offenders would be outside the Criminal Law. (free translation)

26 Littmann-Martin (M.J), A proteção do meio ambiente no direito francês (The environment protection under french law), Translated by Luiz Regis Prado, 18 Revista Brasileira de Ciências Criminais [R.B.C.C], 64, (2002).


32 Winfried Hassemes A preservação do meio ambiente através do direito (The environment preservation by the law), Translated by Carlos Eduardo Vasconcelos, adopted for publication by Paulo de Souza Mendes. 22 REVISTA BRASILEIRA DE CIÊNCIAS CRIMINAIS [R.B.C.C], 29, (1991).

33 Lenio Luiz Streck. Crise(s) paradigmática(s) no direito e na dogmática jurídica: dos conflitos individuais aos conflitos transindividuais. A encravilhada do direito penal e as possibilidades da justiça consensual. (Paradigms crisis at the law and the legal dogmatic: from the individual conflicts to the transindividuals conflicts) 28 REVISTA BRASILEIRA DE CIÊNCIAS CRIMINAIS [R.B.C.C.], 112, (2002) “In this line, nothing better than Ferrajoli lesson when dealing with the election of new fundamental legal rights in a democratic state, saying that a program of criminal law should at least point to a massive deflation of assets and criminal legal prohibitions as a condition of political legitimacy and legal. Alert, however, it is also possible that this reworking is necessary in the field of protection of fundamental goods of a more serious behaviors today accordingly not prohibited and punished, for example, the introduction of the specific offense of torture or the creation of new environmental crimes”. (free translation)

34 Winfried Hassemes A preservação do meio ambiente através do direito (The environment preservation by the criminal law). Translated by Carlos Eduardo Vasconcelos, adopted for publication by Paulo de Souza Mendes. 22 REVISTA BRASILEIRA DE CIÊNCIAS CRIMINAIS [R.B.C.C.], 30, (1991).


37 Ibid. p.348.


40 Bernd Schünemann, Sobre la dogmática y la política criminal del derecho penal del medio ambiente. (About the dogmatic and the criminal policy of the environment criminal law), Translated by Mariana Sacher de Köster, LIBRO HOMENAGE A JOSÉ RAFAEL MENDONZA TROCOTIS, (Tribute book to José Rafael Mendonza Trocontis), (1998).
Trocontis), 362, (1998): “En Ello es reconocible que la relación entre el Derecho Penal y el Derecho administrativo ha sido, en realidad, puesta al revés mediante la desacertada doctrina de la accesoriedad respecto del acto administrativo: Bienes jurídicos protegidos penalmente por ello, mejor se debería hacer referencia en el futuro a la accesoriedad de la administración ambiental respecto del Derecho penal y del Derecho Administrativo, para expresar adecuadamente esta relación.”

41 Ibid, p.360.

42 Nicolau Dino de Castro e Costa Neto. *Observações sobre os crimes contra a administração ambiental.* (Observations about the crimes against the environmental management) 29 REVISTA DE DIREITO AMBIENTAL [R.D.A.], 63, (2003): “It is precisely this aspect that prompts us to say that the Brazilian environmental criminal law leans toward a model of administrative accesoriedad “relative, as Primate is concerned with the legal environment, and not just the breach of administratives. Criminal penalty provisions, therefore, not only lends themselves to ensure compliance with the administrative order.” (Free translation)

43 Jesús-María Silva Sánchez. *A expansão do direito penal: aspectos da política criminal na sociedade pós industrial.* (Criminal law expansion: aspects of criminal policy in the post-industrial societies), Translation Luiz Otávio de Oliveira Rocha, 136, (2002): “Compared to administrative law, and therefore within the scope of sanctions, criminal law, brings the most neutral with regard to politics, as well as the impartiality of the tribunal itself. This makes it difficult for the offender using the techniques of neutralization of the court of worthlessness (disapproval of bias politicization) than is often used before sanctioning the activity of government.” (Free translation)

44 Ibid, p.139.