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Environmental Criminal Law in China: A Critical Analysis

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Editors' Summary

Recent literature describing how criminal law should ideally be shaped to play its crucial role in environmental governance holds that a combination of provisions should be utilized in order to enforce not only violations of administrative norms, but also unlawful emissions. To date, environmental criminal law in China is the result of norms to be found in a wide range of provisions and statutes covering a large number of crimes. The formulation of these norms is in some cases not very precise or clear. This piecemeal system naturally leaves gaps and weaknesses in Chinese environmental criminal law, creating a real need for a comprehensive law to enforce environmental protection.

The goal of this Article is to present and discuss environmental criminal law in China. There is increasing attention to the role of environmental law in promoting sustainable development and effective environmental governance in China, but so far, less has been published (at least in English) on the effectiveness of various enforcement mechanisms that could be used to support material environmental law. The goal of our Article is to identify the way in which public sanctioning systems (mostly criminal law, but to some extent also administrative law) can be employed in an effective way to induce compliance with environmental legislation. To answer that question and to hence address to what extent criminal and administrative law are able to perform a crucial role in the protection of the environment in China, we will first try to explain the structure of environmental criminal law in China.[1] A difficulty in describing environmental criminal law in China is that the norms can be found in a variety of documents with different legal status, like the Penal Code, subsidiary criminal law, and environmental statutes. This provides a wide range of crimes, the formulation of which is in some cases not very precise and clear.

After a description of environmental criminal law in China, the question, of course, arises as to what extent environmental criminal law in China can be considered effective. In order to answer that question, we will use recent literature that has argued that an ideal environmental criminal law should make use of a combination of provisions in order to let environmental criminal law play its crucial role in environmental governance.[2] This literature holds that a combination of provisions is necessary, whereby on the one hand, a violation of administrative norms should be punished, but also unlawful emissions (concrete endangerment of the environment), as well as serious pollution. The question, of course, arises as to what extent Chinese environmental criminal law corresponds with this ideal model. Moreover,

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1. For a general overview, see, e.g., Thomas Richter, *Umweltstrafrecht in der Volksrepublik China* [*Environmental Criminal Law in the People's Republic of China*] 78-136 (2002) (dissertation).
2. More particularly, see, e.g., Michael Faure & Marjolein Visser, *How to Punish Environmental Pollution? Some Reflections on Various Models of Criminalization of Environmental Harm*, 3 Eur. J. Crime, Crim. L. & Crim. Just. 316-68 (1995); *see also* Susan Mandiberg & Michael Faure, *A Graduated Punishment Approach to Environmental Crimes: Beyond Vindication of Administrative Authority in the United States and Europe*, 34 Colum. J. Envtl. L. 447 (2009).

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environmental criminal law has also been critically reviewed in legal doctrine in China as well. Hence, we will also take into account criticisms formulated in Chinese legal doctrine to evaluate the effectiveness of the protection offered by the criminal law to the environment in China.

Of course, we do realize that an important limitation of our Article is that we merely review the structure of environmental criminal law as it appears from the texts and hence do not address actual enforcement of criminal law in China. Enforcement is undoubtedly crucial to guarantee the effectiveness of environmental law.[3] However, it would be wrong to focus the attention merely on enforcement and not to address material environmental criminal law at all. It may be true that without enforcement, material environmental criminal law will remain a dead letter. But the reverse is true to some extent as well: enforcement may be pointless if the provisions that have to be enforced are simply not able to provide an adequate protection to the environment. Hence, within the scope of this Article, we first examine to what extent, at least on paper, environmental criminal law can provide an adequate protection to the environment. The enforcement of those provisions in legal practice may be an important and interesting point for further research.

Our contribution is structured as follows: after this introduction, we first provide a theoretical basis on an optimal model of environmental criminal law and sketch the combined importance of administrative and criminal law (I). Then, the core of our Article contains a description of environmental criminal law in China (II). A critical analysis follows (III), whereby we both will use the theoretical framework sketched in Section I, as well as Chinese legal doctrine that has equally criticized environmental criminal law. Based on this critical evaluation, we will formulate a few obvious suggestions for reform (IV), as well as a few concluding remarks (V).

I. Theoretical Basis

A. *Administrative or Criminal Law?*

Law and economics scholarship has discussed the trade offs of using criminal as opposed to administrative law in general, as well as applied to the enforcement of environmental law.[4] Based on this literature, enforcement through criminal law is preferred when the harm to society, or benefit to the offender, is large, the probability of detection is low, and when criminal law can provide additional stigma and/or an educative role (expressive function). In these circumstances, administrative law might not suffice. In addition, enforcement through administrative law could give rise to problems of capture (collusion between the regulator and the regulated) and to high error costs (as the standard of proof is much lower than under criminal law). Most importantly, administrative sanctions might be too low to provide sufficient deterrence.

On the other hand, the literature points to the fact that, due to the high enforcement costs of the criminal system, administrative sanctioning might be preferred in some instances. These are, for example, when the harm is low (hence insolvency is less of a problem), prevention (through monitoring and licensing) is more effective than ex post deterrence (through sanctioning), or if a violation is a matter of inadequate information, which could be solved by providing sufficient information to the offenders.[5] Due to the lower standard of proof in administrative law, it is likely that enforcement is higher, and hence the ex ante probability of detection is higher as well. Based on this general framework, should environmental law be enforced through administrative or criminal law?

There are only a limited number of empirical studies that tested the question of which enforcement instruments are adequate to protect the environment. In general, they point to a similar conclusion: enforcement of environmental offenses through criminal law is relatively low.[6] The main reasons might be the high administrative costs of the criminal justice system (high standard of proof), heavy workload of courts, judges giving a priority to "real crimes," and lack of adequate knowledge to assess environmental harm. As the probability of detection is low, coupled with a low sanction and high benefit from environmental harm, according to the Becker model, there will be low deterrence. Thus, compliance will follow only if the potential offender is highly risk-averse, his subjective perception of the formal sanction is very high, he significantly overestimates the probability of conviction, and he attaches significance to nonlegal sanctions coming from a criminal conviction (stigma, loss of reputation).[7] All these factors increase the expected sanction a violator might be facing.

As an alternative to criminal enforcement, sanctioning through administrative law has been proposed. We support this argument for the following reason: given the high costs of the criminal law, legal systems that merely have criminal law enforcement systems and limited or no possibilities to enforce via administrative law may be less effective. The

3. *See, e.g.,* Neil Gunningham & Peter Grabosky, Smart Regulation: Designing Environmental Policy 26 (1st ed. 1998) (on the importance of environmental regulation).
4. *See, e.g.,* Roger Bowles et al., *The Scope of Criminal Law and Criminal Sanctions: An Economic View and Policy Implications*, 35 J.L. Soc'y 389-416 (2008).
5. *Id.*
6. *See, e.g.,* Anthony Ogus & Carolyn Abbot, *Sanctions for Pollution: Do We Have the Right Regime?*, 14 J. Envtl L. 283-98 (2002). *See also* Michael Faure & Katarina Svatikova, *Enforcement of Environmental Law in the Flemish Region*, 19 Eur. Energy & Envtl. L. Rev. 60-79 (2010).
7. *See* Ogus & Abbot, *supra* note 6, at 283-98.

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assumption is that given the high costs of the criminal procedure, public prosecutors allocate their scarce resources to the most important cases. As a consequence, the majority of environmental offenses might not be prosecuted, and to the extent that no alternative mechanism (like administrative penalties or fines) exists, this could lead to underdeterrence since rational polluters are facing low expected (formal) sanctions. Administrative fines are relatively cheaper to impose than criminal sanctions, as the administrative proceedings are less strict and more informal. Hence, they might be imposed more frequently and at lower costs than criminal sanctions. More frequent use increases the probability of being sanctioned (and decreases the number of dismissals), which in turn increases the expected sanction an offender is facing ex ante. Obviously, an administrative sanction tends to be lower than a criminal sanction; hence, the deterrent effect is not straightforward. However, if the administrative sanction is sufficiently high and/or imposed enough times, this might indeed increase the deterrent effect of (legal) sanctions. In some cases, it has even been reported that administrative fines tend to be higher than criminal fines.[8] Particularly for the environmental violations, courts might not be equipped with sufficient knowledge of how to evaluate environmental harm, and hence, tend to underestimate the level of sanctions necessary to induce deterrence.

In addition, suspension or revocation of licenses could be seen as having incapacitating effects, and hence, provide a significant deterrent.[9] Therefore, next to having only a criminal system in place to enforce environmental regulations, allowing environmental agencies to impose administrative sanctions might be more effective in reducing environmental harm and at a lower cost. By letting environmental agencies handle the less serious cases, which are not worth the prosecution, the number of dismissals decreases and the overall level of enforcement increases.

These theoretical insights hence provide a strong case for enforcing environmental law through a combination of administrative and criminal sanctions.

B. A Model for Environmental Criminal Law

Let us now address how the criminal provisions aimed at environmental pollution could ideally be shaped. This is based on scholarly work, whereby various models that were used in western European criminal law were examined and combined with respect to environmental law.[10] According to this literature, an effective environmental criminal law needs a combination of the penalizing of the abstract endangerment of the environment, a concrete endangerment of the environment, as well as the independent crime for when pollution has serious consequences.

1. Abstract Endangerment

The notion of abstract endangerment refers to the fact that within this model the criminal provision usually does not punish environmental pollution directly. In this model, the criminal law is an addition to a prior system of administrative decisions concerning the amount and quality of emissions into the environment. Indeed, most systems of administrative law are based on administrative statutes regulating the conditions under which the administrative authorities can allow environmental pollution. Within this system, the role of criminal law usually limits itself to the enforcement of prior administrative decisions that are taken.

In these types of provisions, protection under criminal law is usually provided in one article at the end of an administrative statute. Such an article states generally that everyone who violates the provisions of the act, regulation, or the licenses issued pursuant thereto will be punished with a specific sanction. In some cases, it is, in addition, specifically stated that anyone who operates without a license or violates the conditions of a license is criminally liable under the specific provision.

It is important to stress that environmental criminal law has usually started with these kinds of provisions, where the criminal law follows prior administrative decisions and punishes abstract endangerment of environmental values. Traditionally, criminal law applies in these kinds of cases as soon as the administrative provision has been violated, whether or not this causes harm to the environment. In some legal systems, these abstract endangerments, for instance violations of permit conditions, are not even primarily punished under criminal law, but, for instance, by means of fines under administrative penal law.

In sum: the disregard of administrative obligations certainly needs to be sanctioned. Some legal remedy needs to be used to guarantee the compliance with important administrative obligations, since these also aim at the avoidance of environmental pollution. However, since in this model the link between the provision and the environmental harm is rather remote, the sanction should not necessarily be very high, and in some cases administrative penal law may suffice as a remedy. It is, however, clear that in addition to the penalizing of abstract endangerment, an effective environmental criminal law should do something more than merely punish the non-respect of administrative obligations.

2. Concrete Endangerment

Concrete endangerment refers to the fact that, in this case, some kind of an endangerment of environmental values by posing a concrete threat to the environment is a prerequisite for criminal liability. But in this case, a mere abstract danger that, for example, the illegal operation of a plant might cause danger to the environment, is too abstract and therefore insufficient for criminal liability. Usually, at least an emission is required. This can indeed lead to a concrete danger for the environment, although usually the provisions falling under

8. *See, e.g.,* the doctoral dissertation by Carole M. Billiet, *Bestuurlijke sanctionering van het milieurecht* [*Environmental Administrative Penalization*] 854 (2008), who discusses the application of administrative fines for manure legislation with criminal fines imposed by the courts. For details, see also Faure & Svatikova *supra* note 6.
9. *See* Ogus & Abbot, *supra* note 6.
10. *See supra* note 2.

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this model do not require that an actual harm needs to be proven as well. Usually, a threat of harm is sufficient.

In addition to this requirement of causing a concrete danger to the environment, usually these provisions only lead to criminal liability if a second condition is met, namely, that this emission takes place illegally. In a model of absolute administrative dependence, all that needs to be shown is that the act violated administrative rules. In this case, the emission that can cause a threat of harm needs to be proven. However, as long as the administrative rules are adhered to, usually no criminal liability will follow, because the act will not be considered unlawful. This is the major difference with the subsequent model, to be discussed below, in which criminal liability can occur even if administrative requirements were formally met. The major difference with a model of absolute administrative dependence is also that, even if there is no administrative regulatory framework that has been violated, criminal liability can apply, since the emission can still be illegal. In such circumstances, no criminal liability would occur under a traditional model of abstract endangerment, merely aiming at the enforcement of prior administrative decisions.

This new model can in some way be seen as a reaction of legislators and judges wishing to provide more direct protection to environmental values. This type of provision, in which simply the unlawful concrete endangerment of the environment (through emissions) is penalized, has the major advantage that one does not merely focus on the non-respect of administrative obligations. This equally means that if administrative obligations are lacking, criminal law can nevertheless intervene, since an unlawful endangerment of the environment (through emission) might have taken place.

3. Independent Crime for Pollution With Serious Consequences

A third type of criminal provision directly punishes some cases of very serious pollution. In fact, this model also punishes emissions, but the consequences are of a more serious nature, namely, long-lasting pollution, serious consequences for the health of persons, and/or a significant risk of injuries to the population. The main difference between this model and the others discussed so far is that the linkage between criminal law and prior administrative decisions can now be left aside totally. Under this type of provision, serious environmental pollution can be punished even if the defendant has complied with the conditions of his license. The underlying notion is that the administrative regulation never allowed this specific risk or harm. These are, therefore, cases where the veil of the famous dependency of the administrative law is pierced.

Examples of this model are still relatively rare. A classic example is §330a of the German Criminal Code that punishes the endangerment of human life or health through the emission of toxic substances. In addition, in some countries, it has been advanced in the literature that in order to provide a truly autonomous protection of ecological values, serious attacks on the environment should be punishable, even if these would be allowed under an administrative license. A similar tendency to criminalize serious environmental pollution, even though the conditions of the license were followed, can be found in the Council of Europe Convention for the Protection of the Environment Through Criminal Law. The signatory States agree to adopt measures to criminalize the intentional discharge that causes or creates a significant risk of death or serious injury to any person.[11] It should thus be noted that there is a tendency to limit the justificative effect of a license if the defendant knowingly caused serious harm to the environment.[12]

Moreover, one could think of provisions totally unrelated to environmental law or to emissions into the environment that punish the one who causes bodily harm to another. Most Penal Codes have provisions punishing the one who negligently or intentionally caused injuries to another, unrelated to whether or not these injuries were caused through emissions into the environment. Again, in most legal systems, these provisions still apply even if the defendant followed the conditions of a license.[13]

In sum, this independent crime for serious pollution focuses again on emissions, but in this case, on emissions that may in addition concretely endanger human health. The major difference with the model previously discussed is that unlawfulness is no longer required.

That is why one can understand that these provisions really focus on cases of serious pollution where a concrete danger to human health is caused. In that case, it is clear that under administrative law, the license would not have granted protection either.

4. An Optimal Combination of Various Provisions

At the policy level, the strength and weaknesses of the various models show that an effective environmental criminal law really needs a combination of these various types of provisions. The penalization of abstract endangerment, merely focusing on the non-respect of administrative obligations, is certainly important and necessary. However, the weakness of these provisions is that they apply even if no ecological harm or danger exists. Moreover, they cannot provide an adequate protection if there is no violation of existing administrative rules, because of the too-strong relationship with administrative law and the too-high dependency on administrative decisions.[14] In that respect, the provisions merely penalizing the non-respect of administrative obligations (which remain necessary) need to be complemented with provisions aimed at the concrete endangerment of the environment. This can be done by penalizing unlawful emissions. However, in this

11. Convention on the Protection of the Environment Through Criminal Law & Explanatory Report, art. 2a (Council of Europe Publishing, 2000).
12. *See, e.g.*, *Resolution 10 of the XVth International Congress of Penal Law*, Int'l R. Penal L. 50 (1995).
13. *See, e.g.*, Gunter Heine, *Aspekte des Umweltstrafrechts im internationalen Vergleich* [*Aspects of Environmental Criminal Law in International Comparison*], Goltdammer's Archiv Für Strafrecht 67-88 (1986).
14. *See generally* Faure & Visser, *supra* note 2, at 316-68.

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case, the conditions of an administrative license will still have a justificative effect. But the protection granted to the environment by the judge is already far more autonomous, since it is not limited to the penalization of non-respect of administrative obligations. Finally, the system needs to be complemented with an independent crime applicable to serious pollution if a concrete danger to human life or health exists. Only in this case, the interdependence of environmental criminal law and administrative law is entirely abandoned.

Although one would therefore also expect that the guarantees of the defense and appropriate judicial protection would best be provided in models where judicial discretion is greatest, this need not necessarily be the case. In such circumstances, the methods of proving environmental pollution are not regulated, and although the judge might aim at true protection of ecological values by restricting criminal liability to situations where these values have really been endangered, in legal practice, one cannot be certain that it will turn out that way. In that respect, the question arises whether, even if one shifts in the direction of models that aim more directly at the protection of ecological values by criminalizing concrete endangerment, this should not be accompanied by clear legal rules, for example, guaranteeing a right of countercheck.[15]

This characterization of the different roles of the judge in the various models does not necessarily mean on a normative level that this should lead to a preference for a specific model. Indeed, in the case of criminalization of abstract endangerment, there is control by the judiciary as well, but it plays a role at the procedural level, by controlling whether the procedural guarantees concerning, for instance, the way samples were taken, were met. In the other models, there is—in theory—more room for independent consideration of the pollution problem. This might lead to more adequate protection of ecological values and a better balancing of the interests of the defendant.[16]

II. Environmental Criminal Law in China

A. *Main Structure and Sources of Environmental Criminal Law in China*

The dramatic economic development of China has had, as is well known, a severe impact on the environment during the past 30 years. Many consider the application of the relevant environmental laws and regulations as inadequate to deal with the huge environmental problems the country is facing. This inadequacy may, to a large extent, also apply to environmental criminal law. The main problem recognized in legal doctrine in China is that the formulation of the legal texts is running far behind the social needs of China, as far as an adequate protection of the environment through the criminal law is concerned.[17]

The norms of environmental criminal law can mainly be found in the Penal Code of 1997, in subsidiary criminal law, and in separate criminal law[18]; in other words, China's current environment criminal law is the sum of the relevant legal norms concerning the protection of the ecosystem (including the environment and resources) in the Penal Code and subsidiary criminal law.[19] The provisions of the Penal Code expressly provide environmental crimes and specific penalties, while the subsidiary environmental criminal law has different forms, whereby they often refer to the provisions of the Penal Code. The integration of these two main parts constitutes China's environmental criminal law. All of these norms are supposed to play the role of protecting the environment and resources, which is the essence of environmental criminal law in China.[20]

China adopted the way of penalizing environmental crimes in the Penal Code, while not situating the sanctions elsewhere in other regulations. The largest number of provisions on the crimes against the environment exists in the Penal Code of 1997, which was amended in 1997 based on the Penal Code of 1979. The Criminal Code of 1997 contains the main structure of environmental criminal law. The crimes of "impairing the protection of environment and resources" can be found in Section VI of Chapter VI, which is devoted to crimes related to the obstruction of the administration of public order.[21] This section (Crimes of obstructing the administration of public order) has the most concentrated articles concerning environmental crimes. Other provisions sporadically appear. Section VI of Chapter VI of P.R.C. Criminal Code has the most concentrated articles concerning environmental crimes, and other provisions sporadically appear in Section V—"Crimes against public health" of Chapter VI, Section II, "Crimes against smuggling" of Chapter III, "Crimes against the socialist market

15. On the importance of procedural guarantees, see, e.g., Gunter Heine, *Umweltstrafrecht im Rechtsstaat* [*Environmental Criminal Law in the State of Law*], Neue Zeitschrift Für Strafrecht [J. New Crim. L.] 63-71 (1995).
16. For further details, see Faure & Visser, *supra* note 2, at 316-68.
17. *See, e.g.,* Suli Wang, *The Environmental Criminal Justice in China*, 4th International Conference on Environmental Compliance and Enforcement, *available at* http://www.inece.org/4thvol1/wang.pdf. The author argues that there are not yet specific provisions that define the environmental crimes and measure the penalties against the environmental crimes. *See also* M. Jiang, *Woguo Xingfa Youguan Huanjing Fanzui de Quexian Fenxi* [*Defect Analysis on the Articles Concerning Environmental Crimes of the Penal Code in China*], 30 Huzhou Shifan Xueyuan Xuebao [J. Huzhou Normal College] 84 (2008); J. Wang & S.K. An, *Huanjing Fanzui de Xingfa Xianzhuang Jiqi Gaijin* [The Current Penal Code Articles on Environmental Crimes in China and Its Further Improvement], 10 Yunnan Xingzheng Xueyuan Xuebao [J. Yunnan Administrative College] 148 (2008).
18. The only separate environmental criminal law in China was approved by the Standing Committee of the National People's Congress and was enforced in 1988 on the protection of rare and endangered wildlife, stipulating the killing of rare and endangered wildlife as a kind of crime. The separate environmental criminal law has meanwhile been incorporated into the Penal Code of 1997 and abolished since the enactment of the Penal Code of 1997.
19. For a general overview of environmental criminal law in China, see, e.g., Thomas Richter, *supra* note 1; Thomas Richter, *Transboundary Environmental Crimes: An Analysis of Chinese and European Law*, *in* China And International Environmental Liability: Legal Remedies for Transboundary Pollution 262-68 (M. Faure & Y. Song eds., Cheltenham, Edward Elgar, 2008). *See also* Shizhou Wang, *Environmental Crime and Environmental Criminal Law in the People's Republic of China*, 12 Eur. J. Crime, Crim. L. & Crim. Just. 150-65 (2004); Cheng Yang, *Punishing for Environmental Protection? Enforcement Is Used in China*, 44 Int'l & Comp. L.Q. 671-82 (1995).
20. For an overview, see generally Shizhou Wang, *supra* note 19, at 157-60.
21. *See, e.g.*, Thomas Richter, *Interdependencies Between Criminal Law and Oil Pollution Regulation in China*, *in* Prevention and Compensation of Marine Pollution Damage: Recent Developments in Europe, China, and the U.S. 61-80 (M. Faure & J. Hu eds., Kluwer Law Int'l, 2006).

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economic order," and Chapter IX of the "Crimes of dereliction of duty," with a total of 15 articles of 25 charges, which constitute the main part of environmental criminal law.

The subsidiary environmental criminal law in China can mainly be found in the provisions of the laws and regulations on the environmental and resources protection, such as the "Environmental Protection Law of People's Republic of China" that came into force in 1979 and was amended in 1989, the "Measures on the Implementation of Ocean Dumping Management Ordinance" of 1990, the "Nuclear Power Plant Accident Emergency Management Ordinance" of 1993, and the "Regulation on Railway Environmental Protection" of 1997. It concerns a total of 72 laws and regulations.

This combination of environmental criminal law in the Penal Code and in so-called subsidiary environmental criminal law is typical for environmental criminal law in China and also reflects the combination of administrative and criminal law in the fight against environmental offenses.

B. Environmental Criminal Law

1. General

The current provision concerning environmental crimes, as well as the applicable penalties, can all be found in the Penal Code. As mentioned above, provisions of subsidiary environmental criminal law have no specific expression on criminal charge, no punishment, and no range of penalty. Therefore, the relevant provisions of the Penal Code constitute the basic framework of environmental criminal law in China.

Chinese criminal law follows the traditional socialist legal theory, even though having been amended largely in 1997 and further revised later on at the beginning of the 21st century. The legal theory of Chinese law requires that at least four elements are necessary for the component of a crime, which contains subject, object, subjective aspect, and objective aspect of a crime.[22] These elements are reflected in the formulation of the specific articles. This often leads, as we will show below, to very complex and complicated conditions that have to be fulfilled concerning the circumstances in which the environmental crimes have been committed. These conditions may seriously limit the possibilities of these articles being applied in legal practice.

Environmental provisions of the Penal Code have the largest number of articles currently, involving a total of 15 provisions with 25 charges, which belong to Chapter III, Chapter VI, and IX, respectively. All 25 environmental crimes in the Penal Code have been listed in an overview provided in the Appendix at the end of this Article.

When examining the current articles concerning environmental crimes in the Penal Code, one will be surprised by the amount of articles and the wide variety of aspects covered. These provisions constitute the main body of China's environmental criminal law, and the application of criminal law against the environmental crime should be in strict accordance with the Penal Code in the above-mentioned provisions. As the Chinese criminal law divides the chapters based on the protected social interest, it can be easily noticed that most articles included in Section VI on crimes of impairing the protection of the environment and resources are allocated under Chapter VI on crimes of obstructing the administration of public order. This shows that environmental criminal law in China is targeted at protecting the administration of public order, while not focusing on the protection of the environment directly. Most of the articles deal with crimes with respect to the protection of nature and wild life, and are the so-called Crime of Impairing Resources. Only very few are crimes directly penalizing pollution.[23]

2. Categorization of Criminal Environmental Norms in the Penal Code of 1997

Based on the analysis of the current criminal environmental articles, one can notice that the scope of the 15 articles is relatively broad, covering different aspects of damage to the environment and resources. According to Chinese legal theory, the crime's subjective condition should be either intent or negligence, the criminal subject could be either an entity or the common individual, and the crime itself could be either behavioral, consequential, or circumstantial crimes. We will now follow this categorization of Chinese criminal law and provide an example from each category to show to what extent these provisions can be applied in order to provide an adequate protection to the environment.

a. Behavioral Crimes

Based on the nature of the crimes committed, the crimes can be divided into behavioral, consequential, and circumstantial crimes. The so-called behavioral crime concerns anyone who performs the criminal behavior regulated by the provisions of the Criminal Code. This thus constitutes a crime, not necessarily resulting in the consequence of danger to society, which includes the following terms and conditions:

- Crime of smuggling rare animals and rare animal products (Chapter II, Article 151, Paragraph 2);
- Crime of smuggling of rare plants and rare plant products (Chapter III, Article 151, Paragraph 3);
- Crime of smuggling waste (Chapter VI, Article 339, Paragraph 3);
- Crime of illegal disposal of imported solid waste (Chapter VI, Article 339, Paragraph 1);
- Crime of illegal logging and the destruction of valuable trees (Chapter VI, Article 344);
- Crime of practicing favoritism and committing irregularities in quarantine of animals and plants (Chapter IX, Article 413, Paragraph 1).

22. *See, e.g.*, M.K. Zhang, Xingfa Xue [Criminal Law] 96 (1997).

23. *See* Wang & An, *supra* note 17, at 148-51; Richter, *supra* note 21, at 69.

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A feature of this behavioral crime is that as long as the subject performs the behavior stipulated in the specific provisions, the crime is considered as completed. The specific conduct is considered to endanger a protected interest. However, it is not necessary that any harmful result or consequence should be proven. This type of behavioral crime hence punishes the endangerment of a protected interest, which includes both the concrete and also the abstract endangerments.[24] In this kind of situation, the punishment is targeted to the behavior, and no causality is required by law.

In principle, an imprisonment and a criminal fine can be applied, although the conditions for the application of the sanction are not always very clearly formulated. We may refer to Paragraph 3 of Article 339 as an example for the explanation on Crime of smuggling waste (Chapter VI, Article 339, Paragraph 3). Article 339 stipulates that:

> Whoever, in violation of the regulations of the State, has solid waste from abroad dumped, piled up, or treated within the territory of China shall be sentenced to fixed-term imprisonment of not more than five years or criminal detention and shall also be fined . . . if the consequences are especially serious, he shall be sentenced to fixed-term imprisonment of not less than 10 years and shall also be fined.

Whoever, under the pretext of using it as raw material, imports solid waste that cannot be used as such shall be convicted and punished in accordance with the provisions of Article 155 of this Law.

The formulation itself is problematic, as the definition of "serious consequence" is not further defined in the Penal Code, even though the provision looks quite severe for the "especially serious" situation in which case not less than 10 years' imprisonment and a criminal fine can be applied. But it is hardly feasible, for the simple reason that the "especially serious" situation would be difficult to prove by the public prosecutor. Another aspect lies in the situation that behavior could only be punished with the prerequisite that "in violation of the regulations of the State," which apparently demonstrates that the article here has a strong dependence on the administrative regulations.

b. Consequential Crime

As a second type, the so-called consequential crime is the crime for which a particular result of the crime is requested by law in order to constitute a criminal offense. It includes the following charges and articles:

- Crime of escaping the quarantine of animals and plants (Chapter VI, Article 337);
- Crime of major pollution incident (Chapter VI, Article 338);
- Crime of unauthorized imports of solid waste (Chapter VI, Article 339, Paragraph 2);
- Crime of illegal occupation of arable land (Chapter VI, Article 342);
- Crime of illegal mining (Chapter VI, Article 343, Paragraph 1);
- Crime of destructive mining (Chapter VI, Article 343, Paragraph 2);
- Crime of illegally chopping down trees (Chapter VI, Article 345, Paragraph 1);
- Crime of illegal denudation (Chapter VI, Article 345, Paragraph 2);
- Crime of neglect of duty concerning environmental monitoring (Chapter IX, Article 408);
- Crime of neglect of duty concerning quarantine of plants and animals (Chapter IX, Article 413, Paragraph 2).

Article 338 may provide a detailed description to show how the crime of a major pollution incident in Chapter VI is formulated. This article stipulates that:

> Whoever, in violation of the regulations of the State, discharges, dumps or treats radioactive waste, waste containing pathogen of infectious diseases, toxic substances or other hazardous waste on the land or in the water bodies or the atmosphere, thus causing a major environmental pollution accident which leads to the serious consequences of heavy losses of public or private property or human casualties, shall be sentenced to fixed-term imprisonment of not more than three years or criminal detention and shall also, or shall only, be fined; if the consequences are especially serious, he shall be sentenced to fixed-term imprisonment of not less than three years but not more than seven years and shall also be fined.

It is not surprising that the number of articles under this category is almost twice as high as the number of behavioral crimes. The current Penal Code has a large amount of articles that require that a particular result has to be achieved in order for the conditions of criminal liability to be fulfilled.[25] From the articles above, we can see that most of the existing rules concerning environmental crimes are so called consequential crimes, which require a concrete result of the criminal behavior.

A second aspect worth focusing on is that most articles in this category have a strong dependence on the administrative law, as mentioned above. As a consequence, there is usually criminal liability only if the offender violated administrative rules.

24. *See, e.g.,* W. Jiang, Fanzui Xingtai Tonglun [Research on Criminal Patterns] 115-16 (1994); X.L. Chen, Xingfa Zhexue [Philosophy of Criminal Law] 214-18 (1992); *see also* M.X. Gao, Zhongguo Xingfa Xue [Criminal Law in China] 160 (1989); S.W. Liang, Xingfa Xue Jiao Cheng [Criminal Law] 160 (1987).

25. *See, e.g.*, S.J. Zhang & W. Cao, *Huanjing Ziyuan Baohu Faren Fanzui Qianxi* [*Analysis of the Juridical Person* ***Offense Against the Environment Resource Protection***], 22 Hebei Faxue [Hebei Law Science] 33 (2004).

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The penalty under Article 338 is another aspect that has been criticized by Chinese lawyers.[26] The sanction provided for in this article is "imprisonment or criminal detention of not more than three years and/or a fine." It is striking that this sanction is lower than sanctions for similar offenses against property. A comparison of various articles in the Penal Code can illustrate this point. Article 345 in this category concerning the crime of illegal chopping down trees specifies the penalty of at most seven years for the serious circumstance, while the similar crime of theft of Article 262 could apply the sanction of more than 10 years and could be either fined or confiscation of the property. These differences reflect the reality that current environmental criminal legislation in China emphasizes much more the economic benefits of natural resources and the environment. They are not concerned with a direct protection of the environment as such.[27] Indeed, the mentioned Article 345 of the Penal Code provides a severe sanction for the illegal chopping down of trees for the simple reason that this activity may endanger forestry activities. Compare this to Article 338 of the Penal Code, which punishes the causing of a major environmental pollution incident with a maximum imprisonment of three years, and one realizes that the Chinese Penal Code protects economic interests in a better way than environmental interests.

c. *Circumstantial Crimes*

The third category under this classification is the circumstantial crime. In this case, the constitution of a crime requires the presence of certain circumstances regulated by law. The legal circumstances in the provisions vary from each other, including different patterns of behavior, the number of crimes or the serious results, or the amount of the illegal gain. This category includes the following terms and charges:

- Crime of illegal transfer of land use rights (Chapter III, Article 228);
- Crime of illegal fishing of aquatic products (Chapter VI, Paragraph 340);
- Crime of killing rare and endangered wildlife (Chapter VI, Article 341, Paragraph 1);
- Crime of illegal acquisition, transport, sale of precious and endangered species of wild animals and their products (Chapter VI, Article 341, Paragraph 1);
- Crime of illegal issuance of tree-cutting licenses (Chapter IX, Article 407);
- Crime of illegal approval of requisition and occupation of land (Chapter IX, Article 410);
- Crime of illegal sale of use rights of state-owned land with low price (Chapter IX, Article 410).

The circumstantial crimes mentioned here in the Penal Code of 1997 all belong to the aggravated consequence crimes, which contains a formulation such as ". . . if the circumstances are serious/especially serious. . . ." As long as serious results are required, the causal relationship between the aggravated consequence and the illegal action has to be proved during the public prosecution. This hence makes these provisions very hard to apply. The articles here suffer from the same problem as the consequential crimes mentioned above.

d. *Mens Rea*

The Chinese theory on criminal offenses holds that mens rea is a necessary element for constituting a crime. If the criminal has no mens rea, the act of the perpetrator is condemned to lose the basis for penalty.[28] From the perspective of the state of mind of the criminal, the crimes can be divided into those requiring merely negligence and those requiring intent. The current Penal Code does not clearly express whether a crime requires mens rea, and Chinese lawyers still have no consensus regarding the required mens rea. The categorization here draws on the general theory that gains most popularity in China on this issue and categorizes the environmental crimes into two categories: the intentional destruction of the environment and resources on the one hand, and environmental crimes caused by negligence on the other hand.[29]

Environmental crimes are more complex than traditional ones. From a practical point of view, to prove the subjective fault of the offender is even more difficult than to prove the crime itself. The so-called intentional crimes to the environment and resources refer to the subjective state of mind, whereby someone has acted knowingly, or knowing that his/her action would cause harm to society in violation of relevant laws and regulations, still wishing or indulging the occurrence of the result. This concerns a large number of criminal provisions.[30]

26. *See, e.g.*, P. Xu, Huanjing Xingfa Yanjiu [Environmental Criminal Law] 149-51 (2007); *see also* Jiang, *supra* note 17, at 83-86; Z.C. Li, *Qianlun Woguo Huanjing Fanzui Guiding de Xianzhuang* [*Study on the Articles in Penal Code Concerning Environmental Crimes in China*], 4 Selin Gong'an [J. Forestry Police] 36-38 (2005).
27. *See, e.g.*, Q.J. He, *Xingfa Zhong Huanjing Fanzui Guiding de Quexian Fenxi* [*Defect Analysis on the Regulations Against Environmental Crimes in China*], 35 Xibei Daxue Xuebao [J. Northwest Univ. (Soc. Sci. Ed.)] 96-99 (2005).
28. *See, e.g.*, X.P. Wu, *Lun Woguo Huanjing fanzui Xingshi Lifa de Wanshan* [*On the Perfecting Criminal Legislation of Environmental Crime in China*], 8 Kunming Ligong Daxue Xuebao (Sheke Faxue Ban) [J. Kunming Univ. of Sci. & Tech. (Soc. Sci. & Law Ed.)] 1-5 (2008).
29. Xu, *supra* note 26, at 39-41.
30. Xing fa [Criminal Law/Penal Code] (promulgated by the Nat'l People's Cong., July 1, 1979, revised Mar. 14, 1997, effective Oct. 1, 1997) 1997 Standing Comm. Nat'l People's Cong. Gaz. 2 (P.R.C.). It concerns more particularly the following articles: Art. 151(2) on crime of smuggled rare animals and rare animal products, Art. 151(3) on crime of smuggling of rare plants and rare plant products, Art. 339(3) on crime of smuggling waste, Art. 228 on crime of illegal transfer the land use rights, Art. 339(2) on crime of unauthorized imports of solid waste, Art. 340 on crime of illegal fishing of aquatic products, Art. 341(1) on crime of killing the rare and endangered wildlife, Art. 341(1) on crime of illegal acquisition, transport, sale of precious and endangered species of wild animals and their products, Art. 341(2) on crime of illegal hunting, Art. 342 on crime of illegal occupation of arable land, Art. 343(1) on crime of illegal mining, Art. 343(2) on crime of destructive mining, Art. 344 on crime of illegal logging and the destruction of valuable trees, Art. 345(1) on crime

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To be very clear: the words intent or negligence are usually not used in the text of the legislative provisions. Whether a particular crime is hence considered as an intentional one or one requiring merely negligence is determined by legal doctrine and case law. In some cases, however, it is rather clear that a crime is an intentional one, based on the formulation used in the legislation. An example would constitute the crime of illegal acquisition of timber through illegal logging and deforestation.[31] The formulation reads:

> Those who, in order to make a profit, illegally and intentionally purchase timber from illegal or wanton logging in a serious manner are to be sentenced to less than three years of fixed-term imprisonment or criminal detention or control and, in addition, be sentenced to a fine. They may also be punished by a simple fine. In especially serious cases, those law offenders are to be sentenced to not less than three years and not more than seven years of fixed-term imprisonment and, in addition, be sentenced to a fine.

This is one of the only cases where the legislator himself clearly requires intent. In all other cases, it is not the legislative provision itself that requires the intent, but the interpretation of the provision by legal doctrine and case law.

For example, Article 341, Paragraph 2 of the Penal Code concerning the crime of illegal hunting is in Chinese criminal law considered as a crime of intentional environmental harm, even though the word intent does not appear in the provision itself. The provision reads:

> Whoever, in violation of the law or regulations on hunting, hunts wildlife in an area or during a season closed to hunting or uses prohibited hunting gear or methods for the purpose, thus damaging wildlife resources, if the circumstances are serious, shall be sentenced to fixed-term imprisonment of not more than three years, criminal detention, or public surveillance or be fined.

As we mentioned, the second category covers environmental crimes caused by negligence. Compared to the large amount of intentional crimes stipulated in the Penal Code, the crimes of negligence or recklessness are relatively restricted to a limited number. They in fact only constitute one-third of the intentional ones. The crimes of negligence refer to the situation that the criminal behavior has caused a particular consequence and that there is fault on behalf of the perpetrator. The fault constitutes the fact that the perpetrator should have anticipated that his action may cause harm to society. The fact that this harm was not foreseen because of negligence or recklessness thus constitutes the crime against the environment. Nearly all the crimes in this category are consequential crimes, except the crime of illegal issuance of tree-cutting licenses, which belongs to the circumstantial crimes (but the serious consequence is also one of the circumstances).[32]

The negligent crimes are, as we mentioned, fewer in numbers than the intentional crimes.[33] An example of a negligent crime according to Chinese legal doctrine would be the crime of the major pollution incident mentioned in Article 338 of the Penal Code, which we already referred to above.[34] Thomas Richter notes that the required mens rea for Article 338 is debated, although a majority of authors regards Article 338 as a crime for which negligence and lower recklessness may be sufficient.[35]

C. *Subsidiary Environmental Criminal Law*

As mentioned above, in addition to the Penal Code, so-called subsidiary environmental criminal law also plays an important role in practice. It mainly concerns provisions in state regulations aimed at protection of the environment. These provisions have no specific expression concerning the criminal charge, no punishment, and no range of penalty, but the majority of articles relate to crime indictment and how to apply the corresponding provisions in the Penal Code. An example would constitute an article in the Environmental Protection Law, which stipulates that: ". . . acts which constitute a crime, will be held criminally responsible in accordance with the Penal Code."[36]

Another example constitutes Article 73 of the Water Law of People's Republic of China. This prescribes that:

> the invasion and occupation, theft or robbery of goods used for flood control, flood control drainage, irrigation and water conservancy, hydrological monitoring and measurement, as well as other water works facilities and equipment; corruption or misappropriation of National disaster relief, compensation and other water conservancy construction funds and materials, which constitute a crime, in accordance with the relevant provisions of the Criminal Code, will be held criminally responsible.[37]

Article 43 of the Fisheries Law provides that: "Anyone who forged or altered the fishing sale permits which constitute a crime, shall be held criminally accountable."[38]

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of illegally chopping down trees, Art. 345(2) crime of illegal denudation, Art. 345(3) on crime of illegal acquisition of timbers through illegal logging and deforestation, Art. 410 on crime of illegal approval of requisition and occupation of land, Art. 410 on crime of illegal sell use rights of state-owned land with low price, and Art. 413(1) on crime of practicing favoritism and committing irregularities in quarantine of animals and plants.

31. *See* Xing fa [Criminal Law] art. 345(3).

32. Xu, *supra* note 26, at 41.

33. They concern inter alia in the Xing fa [Criminal Law], Art. 337 on crime of escaping the quarantine of animals and plants, Art. 338 on crime of major pollution incident, Art. 339(1) on crime of illegal disposal of imported solid waste, Art. 407 on crime of illegal issuing tree cutting licenses, Art. 413(2) on crime of neglect of duty concerning quarantine plants and animals, and Art. 408 on crime of neglect of duty concerning environmental monitoring.

34. Again, the difficulty is that negligence would be required based on the interpretation in legal practice and not automatically follow from the reading of the text.

35. Richter, *supra* note 1, at 83-84; Richter, *supra* note 21, at 70.

36. *See, e.g.*, Si Xie, *Fushu Huanjing Xingfa Yanjiu* [*Research on Accessory Criminal Legal Norm of Environment*] 2-3, 15-16 (2008) (dissertation), for more examples.

37. *Id. See also* Shui fa [Water Law] (promulgated by the Standing Comm. Nat'l People's Cong., Jan. 21, 1988, revised Aug. 29, 2002, effective Oct. 1, 2002) 2002 Standing Comm. Nat'l People's Cong. Gaz. 5 (P.R.C.), art. 73.

38. Yu ye fa [Fisheries Law] (promulgated by the Standing Comm. Nat'l People's Cong., Jan. 20, 1986, revised Oct. 31, 2000, and Aug. 28, 2004, effective Aug. 28, 2004) 2004 Standing Comm. Nat'l People's Cong. Gaz. 6 (P.R.C.), art. 43; *see also supra* note 36.

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Article 62 of the Law on Prevention and Control of Noise Pollution regulates that:

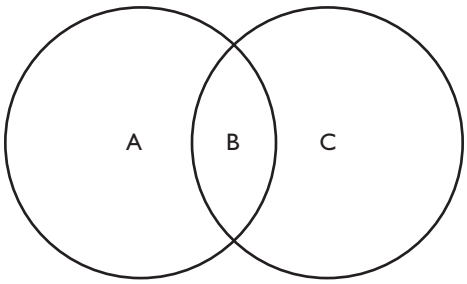
> Staffs who have the supervision or management authority on noise pollution prevention have the abuse of power, dereliction of duty or corruption shall be subject to administrative sanctions by their work units or the higher authorities; if constitute a crime and shall be held criminally accountable.[39]

Article 38 of the Law on Prevention and Control of Desertification specifies that:

> Whoever in violation of the Article 22 of this Law, conducts vegetation sabotage activities in desertified land area, will be ordered the cessation of the breach by forestry, agriculture (livestock) departments of the local people's governments above the county level in accordance with their respective duties; if have the illegal income, the illegal income shall be confiscated; if constitute a crime, shall be held criminally accountable.[40]

From the examples above, it follows that administrative law and criminal law in China are strongly intertwined. Administrative regulations provide specific duties or prohibitions, but for their enforcement, they mostly refer generally to "corresponding provisions in the Penal Code." That is why these administrative regulations are considered as "subsidiary environmental criminal law," since they potentially enlarge the scope of the criminal law. Several reasons are advanced in Chinese legal doctrine for this particular structure of subsidiary environmental criminal law. These reasons more particularly relate to comparative benefits of administrative law. First, it is argued that criminal law often only intervenes at a relatively late stage. Administrative law allows an intervention at an early stage (also when no harm has occurred yet), which could lead to the prevention of environmental harm and thus provide a complementary protection compared to the Penal Code.[41] Second, the current combination approach could keep the unity of the Penal Code, as the cost for revision of the Penal Code is relatively high and it cannot be amended frequently.[42] Third, the approach distinguishes criminal illegality and administrative illegality in one legislation; by adding administrative law to the criminal law, administrative law could fill some of the gaps created by criminal law.[43] Finally, it is argued that it is in practice not always possible to clearly distinguish environmental crimes from administrative infringements.[44] In Chinese legal doctrine, the relationship between both domains has been illustrated by the following figure:

Figure 1: Relationship Between



Administrative Offenses and Criminal Offenses[45]

A: Criminal Offenses
B: Administrative Offenses Leading to Criminal Liability
C: Administrative Offenses

This figure shows that, to some extent, administrative and criminal offenses in China are logically connected and that the punishment is graduated from administrative to criminal offenses. The connection between the two systems has been examined by Chinese academics.[46] In legal doctrine, it is held that the relationship between administrative environmental law and criminal law could take four different forms:[47]

1. A first possibility is that the state regulations and laws concerning the protection of the environment and natural resources just hold generally that violation may lead to "criminal responsibility," but that neither the sanctions, nor the specific provision of the Penal Code that would have to be applied, is indicated. This general reference to criminal law could take two different subforms:

   a. A first possibility is that an administrative environmental act simply stipulates that particular ". . . conduct constitutes a crime and can be held criminally

39. Huan jing zao sheng wu ran fang zhi fa [Law on Prevention and Control of Noise Pollution] (promulgated by the Standing Comm. Nat'l People's Cong., Oct. 29, 1996, effective Mar. 1, 1997) 1996 Supreme People's Court Gaz. 4(72) (P.R.C.), art. 62; *see also supra* note 36.
40. Fang sha zhi sha fa [Law on Prevention and Control of Desertification] (promulgated by the Standing Comm. Nat'l People's Cong., Aug. 31, 2001, effective Jan. 1, 2002) 2001 St. Council Gaz. 30 (P.R.C.), art. 38; *see also supra* note 36.
41. *See, e.g.*, S.D. Liu, Kongbai Zuizhuang-Jieding, Zhuiwen, Jiedu [Blank Criminal Rules—Defining, Questioning and Analyzing] 91-98 (1st ed. 2002).
42. *See, e.g.*, X.W. Xie, *Woguo Huanjing Fanzui de Lifa Jishu Fenxi* [*Analysis on the Legislative Techniques on Environmental Crimes*], *in* 2001 Nian Huanjing Ziyuan Faxue Guoji Yantao Fui Lunwen Ji (xiace) [International Colloquium on Natural Resources and Environmental Law in 2001], 78 (2001).
43. *See, e.g.,* Y.H. Liu, *Kongbai Xingfa Guifan de Zuixing Fading Jineng—Yi Xiandai Fazhi Guojia wei Beijing de Fenxi* [*On the Function of Blank Criminal Rules—Analysis With the Modern Country With the Adequate Legal System as the Background*], 4 Zhongguo Faxue [J. China Legal Sci.] 134-36 (2004).
44. *See, e.g.*, S.T. Lin, Jingji Fanzui yu Jingji Xingfa [Economic Crime and Criminal Law] 129 (1st ed. 1981).
45. Xu, *supra* note 26, at 114-15.
46. *See, e.g.*, C.F. Wang, *Woguo Chengzhi Huanjing Fanzui Jidai Jiejue de Jige Wenti* [*Some Problems That Need Solving in Penalizing Environmental Crimes in China*], 1996 Zhongwai Faxue [J. Domestic & Foreign L.] 92-93; M.K. Zhang, *Xingzheng Xingfa Bianxi* [*Differentiating and Analyzing the Administrative Criminal Law*], 1995 Zhongguo Shehui Kexue [J. China Soc. Sci. Study] 115-17; *see also* D.P. Shao, *Zhongguo Huanjing Fanzui Lifa Moshi zhi Gouxiang* [*The Conception of Chinese Environmental Legislation Model*], 19 Guangxi Zhengfa Guanli Ganbu Xueyuan Xuebao [J. Guangxi Admin. Cadre Inst. Pol. & L.] 73-75 (2004); X.Y. Zhao, *Luelun Woguo Huanjing Fanzui de Lifa Zai Wanshan* [*Consummating China's Legislation of Environmental Crimes*], 36 Hubei Xingzheng Xueyuan Xuebao [J. Hubei Admin. Inst.] 32-35 (2007); X.M. Wang, Pohuai Huanjig Ziyuan Fanzui de Dingzui yu Liangxing [Conviction and Sentencing of Environmental Crimes] 8-9 (1st ed. 1999).
47. Western scholars working on environmental criminal law have attempted to differentiate the forms of the accessory status of criminal law. *See, e.g.,* Richter, *supra* note 21, at 74-75.

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responsible." An example is Article 62 of the Law on Prevention and Control of Noise Pollution. This regulates that "Staffs who have the supervision or management authority on noise pollution prevention have the abuse of power, dereliction of duty or corruption shall be subject to administrative sanctions by their work units or the higher authorities; if constitute a crime and shall be held criminally accountable."[48]

b. A second possibility is that the act holds "One of the following acts constitutes a crime, in accordance to the relevant provisions of the Penal Code, to be held criminally responsible." In that case there is at least an explicit reference to "relevant provisions of the Penal Code." An example constitutes Article 48 of the Law on Prevention and Control of Radioactive Pollution. This stipulates that "Personnel who has the supervision and management authority on radioactive pollution prevention and Control, violates the law and has one of the following acts shall be given administrative sanctions; if constitutes a crime, shall be prosecuted for criminal liability: (i) issuing permits and processing approval without conforming to the requirements; (ii) not implement the duties of supervision and management; (iii) not investigate and prosecute the cases on violation of law."[49]

When it comes to the practical application of these provisions, there are no problems in the case where the violation of the particular environmental statute has a clear corresponding penalty in the Penal Code. This may be the case if the environmental violation could be qualified as, e.g., theft, deforestation crime, the crime of destruction of cultural relics, or the crime of major pollution incident. The case is more complicated when there is no specific provision in the Penal Code that could be applied to the specific violation. The crime of marine pollution, for example, is an example of a case where no penalty in the Penal Code could be applied against such a crime.[50]

2. The second way of referring to criminal law is a more specific way, restricting the application of the criminal provision to a certain article in the Penal Code. For example, Paragraph 1 of Article 39 of the Mineral Resources Law prescribes that: "In violation of this law, without obtaining the mining permit . . . causing great loss to the mineral resources, shall be held criminally liable according to the Article 156 of the Penal Code."[51]

3. A third way of referring to the Penal Code is that the administrative environmental law simply refers to a corresponding article in the Penal Code that could apply *mutatis mutandis* to the environmental administrative violation where similar circumstances are required for the provision to apply. However, it is necessary to strictly distinguish the precise meaning of two readings of "in accordance with" and "in analogy with." According to criminal law principles, if an act constitutes a crime, and a certain article in the Penal Code could be applied, the term of "in accordance with" should be used. While "in analogy with" refers to the situation that no specific stipulation could be found in the Penal Code against a certain crime and an act has in fact constituted a crime, a similar article with similar description of the action and level of sanctions could thus be applied.

The latter one is actually creating an analogous article with the formulation as ". . . to be held criminally responsible in analogy with similar article in the Penal Code." Such descriptions are rarely noticed, but do exist in some regulations. An example constitutes Article 57 of the Law on Prevention and Control of Water Pollution, which regulates that "a violation of the provisions of this Law, causing major water pollution accidents, resulting in heavy losses to public and private property, personal injury, or serious consequences, can be prosecuted in analogy with Article 115 or Article 187 of the Penal Code and be held criminally responsible."[52]

4. The fourth manner is to refer in the administrative environmental law provision to a specific crime in the Penal Code without explaining the detailed requirements of that crime, but to simply apply the relevant article from the Penal Code directly. The Law on Prevention and Control of Solid Waste Pollution prescribes for example in Article 66 that: ". . . to evade Customs control thus constitutes the crime of smuggling, shall be held criminally responsible. . . ."[53]

Paragraph 2 of Article 35 of the Wild Animal Protection Law stipulates that: "In violation of this law, sale and acquisition of national key protected wild animals or their products, with serious circumstances, constituting the crime of speculation and/or crime of smuggling, be held criminally responsible in accordance with the relevant provisions of the Penal Code."[54]

When examining the four different approaches, one part to focus on is to distinguish the two legislative measures as "b" and "d." When applying model "b," which restricts the reference to certain articles, it is still necessary to prove that constitution of such crime does exist, which means the

48. Huan jing zao sheng wu ran fang zhi fa [Law on Prevention and Control of Noise Pollution], art. 62.
49. Fang she xing wu ran fang zhi fa [Law on Prevention and Control of Radioactive Pollution] (promulgated by the Standing Comm. Nat'l People's Cong., June 28, 2003, effective Oct. 1, 2003) 2003 Standing Comm. Nat'l People's Cong. Gaz. 4(235) (P.R.C.), art. 48.
50. *See, e.g.*, L.Z. Fu, Huanjing Xingfa Xue [Environmental Criminal Law] 710-11 (1st ed. 2001).
51. Kuang chan zi yuan fa [Mineral Resources Law] (promulgated by the Standing Comm. Natl People's Cong., Mar. 19, 1986, revised Aug. 29, 1996, effective Jan. 1, 1997) 1996 Supreme People's Procuratorate Gaz. 5(35) (P.R.C.), art. 39(1).
52. Shui wu ran fang zhi fa [Law on Prevention and Control of Water Pollution] (promulgated by the Standing Comm. Nat'l People's Cong., May 11, 1984, revised May 15, 1996 and Feb. 28, 2008, effective June 1, 2008) 2008 Standing Comm. Nat'l People's Cong. Gaz. 2(268) (P.R.C.), art. 57.
53. Gu ti fei wu wu ran huan jing fang zhi fa [Law on Pevention and Control of Solid Waste Pollution] (promulgated by the Standing Comm. Nat'l People's Cong., Oct. 30, 1995, revised Dec. 29, 2004, effective Apr. 1, 2005) 2005 Standing Comm. Nat'l People's Cong. Gaz. 1(245) (P.R.C.), art. 66.
54. Ye sheng dong wu bao hu fa [Wild Animal Protection Law] (promulgated by the Standing Comm. Nat'l People's Cong., Nov. 8, 1988, revised Aug. 28, 2004, effective Aug. 28, 2004) 2004 Standing Comm. Nat'l People's Cong. Gaz. 6(82) (P.R.C.), art. 35(2).

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prosecutor needs to take the burden of proof when charging a criminal offense that the four elements of a crime have been met by the perpetrator. Also, in the criminal law of China, one article sometimes has different charges with different paragraphs. The reference to a certain article is somehow quite clear for enforcement and at the same time, gives the judges full discretion to choose which charge would be applied under the same article. While model "d" indicates directly the crime itself, and discretion is quite limited.

It follows from this brief sketch of the various ways in which violations of administrative environmental laws can be punished by using the Penal Code that the scope of the articles in the Penal Code has been substantially expanded through administrative environmental law. From the description above, one can conclude: firstly, that crimes against the environment and penalties are mainly regulated by the provisions of the Penal Code and that the administrative laws and regulations provide material requirements that may lead to criminal liability, although they do not contain penalty provisions. Secondly, the environmental administrative regulations and the crimes and penalties regulated by the Penal Code supplement each other.[55]

D. Administrative Sanctions

As we made clear above, when discussing subsidiary environmental criminal law, in many cases, violations of administrative environmental law could lead to criminal liability under provisions of the Penal Code (even though the particular construction chosen may differ). However, in some cases, violations of administrative environmental law (also) constitute administrative offenses.[56] These could hence give rise to the application of administrative sanctions. In Chinese legal doctrine, it is held that criminal law and administrative law have to be considered together as an integral system that can provide sanctions and remedies for environmental offenses. From the perspective of preventing environmental crime, it is hence held that administrative and criminal sanctions can both have a specific value.[57] Administrative sanctions can be found in various administrative environmental laws, usually under the chapter referred to as legal liability. Depending upon the applicable regulation, a wide range of possible administrative sanctions could be applied.

1. Sanctions

The general regulation concerning the administrative sanctions is the Administrative Penalty Law of 1996, which prescribes the general principles of administrative sanctions.[58] The administrative measures that can be taken in case of environmental offenses can mainly be found in the Measures on Administrative Sanctions Against Environmental Offenses, adopted by the Ministry of Environmental Protection.[59] This document is mainly focused on rules and regulations on sanctioning environmental offenses. It concerns, for example, polluting without a permit or license, violating the license conditions, and causing pollution and ineffective pollution control within the time limits set. etc. Depending on the violation, the relevant authority could:[60]

- give a warning;
- impose a fine;
- confiscate illegal gains;
- order to close a polluting plant or stop production;
- revoke a permit or license;
- impose other types of administrative penalties that the state environmental protection laws and regulations provide for.

Besides the above-mentioned approaches, state regulations on environmental protection with specific priorities have other sanctioning methods, such as the order to reinstall and use environmental friendly techniques; pollution control with limited time; ordering to remove the polluting plant or project; confiscation of facilities; destroying after confiscation; cancelling the production and import quotas; ordering to construct facilities before the deadline; ordering to transport the hazardous waste back to the exporters; ordering the importer to eliminate pollution; ordering removal, suspension, and closure of business; ordering business suspension for pollution control; eliminating barriers; mandatory recycling of products and packaging; replanting grass and restoring vegetation; cancellation of mining permits; confiscation of fishing gear; cancellation of fishing permit; ordering to stop acts of vandalism; deadline for restitution; cancel the approval document; taking remedial measures; ordering to

55. *See, e.g.*, B.L. Hu et al., Huanjingfa Xinlun [New Comments on Environmental Law] 369-84 (1st ed. 1992).
56. See *supra*, fig. 1 and note 45, for details.
57. *See, e.g.*, Z.G. Shu, *Huanjing Fanzui Shiyong Fei Xingfa Cuoshi Tanxi* [*Non-Penalty Measures Is Suitable to Environmental Crime*], 20 Guizhou Jingguan Zhiye Xueyuan Xuebao [J. Guizhou Police Officer College] 29-32 (2008).
58. Xing zheng chu fa fa [Administrative Penalty Law] (promulgated by the Nat'l People's Cong., Mar. 17, 1996, effective Oct. 1, 1996) 1996 Supreme People's Court Gaz. 3(47) (P.R.C.). Xing zheng chu fa fa [Administrative Penalty Law] stipulates the main approaches state regulations and laws would take for administrative sanctions: (1) warning; (2) fines; (3) confiscating illegally gained income and property; (4) ordering the suspension of production and operations; (5) provisionally suspending or revoking permits or licences; (6) administrative detention; and (7) other administrative punishments stipulated in laws and administrative regulations.
59. Measures on Administrative Sanctions against Environmental Offences (promulgated by the Ministry of Environmental Protection, Aug. 6, 1999, revised Dec. 30, 2009, effective Mar. 1, 2010) 2010 Ministry of Environmental Protection Order 8 (P.R.C.).
60. For an overview, see Wang, *supra* note 19, at 163.

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stop construction; ordering to stop tilling; administrative detention, etc.[61]

Some of these measures can be taken separately, and some might be combined for sanctioning. In almost every case, a fine will be applied to the offender, and the amount varies in different cases within the framework of the relevant authority. The amount of the administrative fine depends on the applicable administrative regulations. In some cases, the fines are extended without any legislative basis. This is debated in legal doctrine, and some hold that the fine is in fact abused to increase the income of the state authorities.[62]

Even though, as mentioned above, administrative authorities in theory have the discretion to use a large number of different administrative sanctions, the sanction most used in practice is the administrative fine. This has also a legal reason: other measures than the fine, such as the closure of the polluting plant or the order to stop production, can usually only be issued by public authorities above the county level.

When the fine is compared to other administrative sanctions, like ordering the closure of the plant or the revocation of a license, the economic impact of the fine for firms is usually not very great. This also follows from the fact that regulations often generally state that the authority "may also impose a fine" without specifying the precise amount or the (environmental) principles according to which the fine should be imposed. The paradoxical result is that on the one hand, the fine is the most used sanction in practice, but that on the other hand (given the low amount), it is in reality ineffective to fight environmental violations.

2. Examples

The newly amended Law on the Prevention and Control of Water Pollution in 2008 aims at specifying the sanctions against pollution of surface and groundwater. Article 75 provides a good reference for the sanctioning approach:

> Establishing sewage outlets in the drinking water protection areas shall be ordered to remove . . . and a fine of at least 100,000 RMB and no more than 500,000 RMB shall be imposed; in case of late demolition[63], it will be forced for removal, the cost shall be the offender's commitment, and a fine no less than 500,000 RMB and no more than one million RMB will be imposed, and can be ordered to suspend production for rectification.
>
> In addition to the preceding paragraph, in the violation of laws and administrative regulations and the provisions of the State Council Department in charge of environmental protection, establishing sewage outlets . . . shall be held responsible for a fine between 20,000 RMB and 100,000 RMB; in case of late demolition, it will be forced for removal, the cost shall be the offender's commitment, and a fine no less than 100,000 RMB and no more than 500,000 RMB will be imposed.[64]

The newly amended Law on Prevention and Control of Water Pollution, to some extent, followed the academic arguments made in legal doctrine, which held that the degree of administrative fines should be substantially increased for deterring environmental offenses.

This is especially made clear in the following Article 76 of the Law on Prevention and Control of Water Pollution. This provision aims at the punishment of unlawful emissions and provides that:

> Whoever, commits any of the following acts, shall be ordered to stop illegal activities, to take control measures to eliminate pollution and/or to be fined by the environmental protection department of the local people's governments above the county level; if the control measures are not taken within the time limit, the environmental protection authorities can designate other entity which is capable of taking control measures and the costs shall be the commitment of the offender:
>
> - discharge oil, acid and/or lye into water body;
> - discharge or dump into any water body or directly bury deadly toxic soluble slag, tailings, etc. containing such substances as mercury, cadmium, arsenic, chromium, lead, cyanide and yellow phosphorus;
> - wash and clean in any water body any vehicles or containers which have been used for storing oil or toxic pollutant;
> - discharge or dump industry waste residues, urban refuse or other wastes into any water body or to pile or deposit solid wastes and other pollutants on beaches and bank slopes below the highest water level of rivers, lakes, canals, irrigation channels and reservoirs;
> - discharge or dump radioactive solid wastes or waste water containing any high- or medium-level radioactive substances into any water body;
> - in violation of relevant regulations or standards, to discharge waste water and/or hot water containing low-level radioactive material or waste water containing pathogens;
> - use of seepage wells, seepage pits, crevices or caves for discharging or dumping of waste water containing toxic pollutants, pathogens or other wastes;
> - use of non-anti-seepage measures, ponds for transporting or storing of waste water containing toxic pollutants, pathogens or other waste.

61. *See, e.g.*, G.J. Liu, *Huanjing Xingzheng Chufa Zhong Cunzai de Wenti yu DuiCe* [*Problems and Solutions in Environmental Administrative Punishment*], 1994 Huanjing Baohu [J. Envtl. Protection] 17-19.
62. *See, e.g.*, Z.W. Liu, *Huanjing Xingzheng Chufa Zhonglei Jieding Jiqi Jiaozheng* [*Problems of Types of Administrative Punishment on Environmental Violations and Their Resolutions*], 2005 Huanjing Baohu [J. Envtl. Protection] 42-45.
63. This "late demolition" simply refers to the fact that a perpetrator may have to remove a sewage outlet within a certain time period. There is late demolition if the outlet is not removed within the time limit set by the authorities.
64. Shui wu ran fang zhi fa [Law on Prevention and Control of Water Pollution], art. 75.

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> A fine above 10,000 RMB and no more than 100,000 RMB shall be imposed for any of the situations in paragraph 3 and/or paragraph 6; a fine above 20,000 RMB and no more than 200,000 RMB shall be imposed for any of the situations in paragraph 1, paragraph 4 and/or paragraph 8; for any of the situations in paragraph 2, paragraph 5 and/or paragraph 7, a fine above 50,000 RMB and no more than 500,000 RMB shall be applied.[65]

This Article clearly shows a rather differentiated approach by providing different sanctions according to the seriousness of the violation. This is, however, one of the rare cases in Chinese law where such a differentiated approach can be found.

The newly amended article above and the Law on Prevention and Control of Solid Waste Pollution allow the imposition of a fine up to 1,000,000 RMB.[66] However, in practice, the average fines in the state regulations were always fixed up to a maximum of 200,000 RMB.[67] In reality, the operation cost of a pollution purifying installation would be 100,000 RMB per day, and the administrative fine for not operating the plant would merely be around 100,000 RMB. Hence, large-scale factories, such as paper mills, would not keep the pollution treatment facilities running from a cost-benefit perspective, which on the other hand increases the cost of law enforcement.

Yet another example of the use of administrative fines in regulation is provided by the Law on Prevention and Control of Atmospheric Pollution. Article 56 of this law provides that a fine of 50,000 RMB can be imposed for "discharging of dust, fetor or other gasses with toxic substances into the atmosphere without taking any effective measures to prevent and control pollution."[68] Again, this example shows that fines for even serious environmental offenses do not have any serious deterrent character.

III. Critical Analysis

A. *The Model Tested*

A first way to approach environmental criminal law in China would simply be to examine whether the ideal provisions from the model we sketched above can also be found in criminal law in China. As we made clear, we believe that an ideal criminal law, providing an adequate protection to environmental interests, should consist of a combination of a variety of provisions that, in combination, provide an adequate protection to the various components of the environment (water, soil, air, and natural resources).

The first type of provisions needed (but not sufficient) was the so-called abstract endangerment crimes. These are the types of crimes that merely punish the non-respect of administrative duties, like operating a plant without a license, violating administrative duties, license conditions, etc. without an emission or actual harm occurring. We argued that it is important to punish the non-respect of these administrative duties in order to intervene in the protection of environmental interest in a very early stage (far before an emission or harm occurs). However, given the fact that the relationship between the violation and the protected interest is rather remote, this would be the type of violations that could also be punished through administrative law, as we have also shown when discussing differences between administrative and criminal law.[69]

In this respect, the approach followed by Chinese law seems to make sense: the respect of administrative obligations, like the duty to obtain a permit and to respect permit conditions, is not criminalized in the Penal Code. Most of these obligations can be found in administrative environmental regulations. These are mostly enforced through administrative sanctions.

Even though the choice for an administrative sanctioning system may theoretically make sense, questions can be asked concerning the effectiveness of the administrative sanctions provided. On the one hand, administrative sanctions consist of sanctions aimed at preventing further harm from occurring or remedying harm that occurred in the past. These types of very detailed administrative remedial measures aim at the restoration of environmental harm and can obviously very well serve that goal. A problem with these types of sanctions is, however, that they merely force an offender to do what he had to do anyway according to the law, e.g., installing environmental friendly techniques or pollution control mechanisms, etc. Given that a major problem with environmental violations lies in the fact that the probability of detection can be very low, a polluter who only risks remedial sanctions has nothing to lose when violating. The point was made in the theoretical section that a sanction should be provided that outweighs the low probability of detection of the environmental offense. This could lead to expected sanctions that are higher than the potential benefit to the offender. The deterrent sanction that could be provided through administrative law is the administrative fine. However, we indicated[70] that most administrative environmental acts provide for fines of between 500,000 and 1,000,000 RMB, whereas in practice, fines would often be below 200,000 RMB. It may be clear that, given low probabilities of detection and the high potential gain from violation, these types of sanctions can never provide an effective deterrent.

Looking at the concrete endangerment crimes, there is in theory a long list of crimes provided in the Penal Code,

65. *Id.* art. 76.
66. Gu ti fei wu wu ran huan jing fang zhi fa [Law on Prevention and Control of Solid Waste Pollution], art. 82.
67. *See, e.g.*, X.P. Cai & H. Ye, *Huanjing Baohu Falü Zhi Xing Nan de Sikao he Duice* [*Difficulties in Enforcement of Environmental Protection Law and Its Countermeasures in China*], 2008 Zhongguo Gaoxin Jishu Qiye [J. China High Tech. Enterprises] 120-21.
68. Da qi wu ran fang zhi fa [Law on Prevention and Control of Atmospheric Pollution] (promulgated by the Standing Comm. Nat'l People's Cong., Sept. 15, 1987, revised Aug. 29, 1995, and Apr. 29, 2000, effective Sept. 1, 2000) 2000 Standing Comm. Nat'l People's Cong. Gaz. 3 (P.R.C.). The highest amount of the fine that could be applied is merely 200,000 RMB when specific conditions mentioned in Article 60 of the Law on Prevention and Control of Atmospheric Pollution are fulfilled. Article 60 stipulates that the coal mining and other metal manufacturing companies would be fined if there are no installation of the relevant coal-washing or desulfurization facilities.
69. *See supra* Section I.A.
70. *See supra* Section II.D.2.

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but many of those require that a certain consequence would have been reached.[71] These are in practice very hard to prove; that is particularly why crimes punishing, e.g., "causing pollution," were not part of our ideal model of environmental criminal law.

Some of the provisions from the Penal Code could be qualified as punishing the concrete endangerment of environmental interest. For example, crimes punishing the smuggling of waste (Article 339, Paragraph 3), illegal disposal of important solid waste (Article 339, Paragraph 1), etc., could be considered as punishing the concrete endangerment of the environment.

In this kind of situation, the punishment is targeted to the behavior, and no causality is required by law. It is generally acknowledged that these provisions are the typical descriptions of behavioral crimes without requiring the same consequence or causality as the elements of committing crimes, which seems that they are more practicable, and thus provide a better protection of the environment. The prosecutor would have the burden of proof that the defendant had committed the act, while he does not need to prove the concrete harm and the complex causality relationship between the behavior and a result.

Yet another problem is that some concrete endangerment of the environment is punished, not as a crime, but rather as an administrative infringement. This is the case for Article 76 of the Law on the Prevention and Control of Water Pollution, cited above, which punishes unlawful emissions with administrative fines. Even though these are by Chinese standards considerable (up to 500,000 RMB), they may not sufficiently deter unlawful emissions of wastewater or other substances.

A weakness is, moreover, that not all unlawful emissions into the environment are punished in the same way. Disposal of waste is an example of a concrete endangerment crime to be found in the Penal Code, but surprisingly, unlawful emissions of wastewater or unlawful emissions into the air are not directly punished by the Penal Code. For those violations, one is hence dependant upon either subsidiary environmental criminal law or administrative sanctioning systems. Since no corresponding article exists for water pollution or air pollution in the Penal Code, the applicable sanction will mostly be restricted to an administrative sanction. In that respect, we can refer to the comment above that these are usually too limited in amount.

The autonomous crime, whereby it would be possible to apply criminal law against cases of serious environmental pollution (for example, in case there would be concrete danger to human health), cannot be found in Chinese environmental criminal law. The most serious crime (at least on paper) would be Article 338 of the Penal Code, punishing the causing of a major environmental pollution. There, the problem not only arises that causation is required,[72] but also that all of the criminal provisions in the Penal Code are characterized by a very strong administrative dependence. Even Article 338 of the Penal Code is only applicable when the major environmental pollution accident was caused "in violation of the regulations of the state." There is, hence, an absolute administrative dependence and no independent environmental crime.

B. *Specific Problems*

1. Administrative Dependence of Environmental Criminal Law

We already mentioned in the theoretical part that a major weakness of environmental criminal law in many legal systems is a (too) strong link between administrative and criminal law. That problem also arises in Chinese environmental criminal law. Most provisions in the Penal Code only apply when the offender acted "in contravention of the state law and regulations." This may seriously limit the possibilities to apply the criminal law (obviously dependent on how this provision is interpreted). In all cases where the offender, e.g., complied with the conditions of a permit, there would be no "violation of the regulations of the state," even if emissions covered by the permit would cause serious environmental harm. Especially as far as Article 338 of the Penal Code is concerned, the fact that this crime of "major pollution incident" can only be applied when it occurred in violation of administrative rules has been criticized by Chinese lawyers. The problem remains indeed that substantial harm could be caused to the environment while still respecting administrative law. These formulations hence seriously limit the possibility for the judiciary to provide an autonomous protection to the environment through the use of criminal law.

2. Combining Administrative and Criminal Law

The relationship between criminal law and administrative law is particularly strong in the case of China, since administrative environmental law often refers (in different ways) to the Penal Code as a sanctioning mechanism.[73] As we explained above,[74] the way in which the administrative environmental acts refer to the provisions in the Penal Code varies substantially and is, moreover, not always very clear.[75] In some cases, the administrative environmental law mentions explicitly that a particular article in the Penal Code (for example Article 156) will be applicable when a violation of administrative environmental law took place. In that case, for all parties involved (potential offenders, the public prosecutor, and the judge), the applicable provision is clear, and criminal law could thus exercise its deterrent effect and provide an adequate protection to the environment.[76]

In other cases, the reference to the Penal Code is less clear, when administrative environmental law merely mentions

71. The so-called consequential crimes referred to in Section III.B.2.
72. *See infra* Section III.B.3.
73. On the dependence of criminal law on administrative regulations, see also Richter, *supra* note 21, at 73.
74. *See supra* Section II.C.
75. *See* Richter, *supra* note 21, at 73.
76. These were the situations referred to under b. in *supra* Section III.C.

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that a violation will be punished in accordance with the relevant provisions of the Penal Code without specifying which provisions that would be.

Clearly, the subsidiary environmental criminal law in China has a strong dependence on the penalties in the Penal Code, which leads to the consequence that the application of the administrative laws and regulations against the environmental crimes could be rarely witnessed in legal practice, as the connection between the administrative laws and the Penal Code is not that clear. This makes the implementation in practice very hard. Still, legal doctrine in China holds that the relationship between administrative and criminal law is necessary, since it allows for maintaining the integral structure of the sanctioning system without undermining the unity of the Penal Code by amending or adding the increasing new types of crimes against the environment into the criminal law system.[77]

3. Consequential Crimes

We discussed above that a large number of crimes in the Penal Code requires the realization of a certain result like chopping down trees, occupation of arable land, causing major pollution, etc. It will be very difficult to apply these provisions in practice, since they all require a certain result to be achieved: heavy losses of public or private property, or the grave consequences of injuries or deaths of persons. It is generally known that these kinds of provisions are not practical, since they require a causal relationship between a certain action and the resulting damage. Also, legal scholars in China are critical of the fact that criminal law can only intervene when a particular behavior has produced certain consequences dangerous to the society, without having the possibility to punish the behavior as such.[78]

This is also the problem with Article 338 of the Penal Code, punishing the crime of a major pollution incident. This provision not only requires that the incident was caused "in violation of the regulation," but also that it caused "serious consequences." In this kind of situation, not only the illegality, but also the required result, means that the law would only intervene at a very late stage.[79] In addition, the burden of proof for the public prosecutor would be very heavy. It is therefore remarkable that "causing a major environmental pollution accident which leads to the serious consequences of heavy losses of public or private property or human casualties" would result in criminal liability only if the state regulations have been violated. This makes the article very hard to apply.

Another aspect in this article that has been heavily discussed in legal doctrine in China is the low degree of sanction applied. Indeed, there is a prison sanction of not more than three years, even if the serious consequences of death and loss of property would occur. This sanction may not be sufficient to prevent this criminal behavior.[80] Moreover, it is remarkable that this serious crime is only punished with a sanction of three years (and a maximum of seven years), whereas theft is punished in Article 262 of the Penal Code with an imprisonment of 10 years and more. This also shows that Chinese criminal law protects economic interests better than ecological interests.

4. Intent

Above, we also mentioned that the Chinese Penal Code is not always very clear in the required mens rea. The difficulty is that this does not always follow from the text of the legislative provisions, but rather from solutions in legal doctrine or case law. In some cases, intent is required. Legal doctrine holds that a large amount of environmental crimes from the Penal Code require proof of intent. The intent in most environmental crimes refers to two different aspects, the intent toward the concrete endangerment and the intention toward the violation of administrative law, among which the proof of knowing illegality theoretically would be one element constituting a crime. In legal practice, the proof of knowing the illegality may pose large problems, as the defendant could always argue that he or she does not know the specific regulations.[81] The leading opinion says that knowledge of the illegality is not a necessary component of the intentional crime, as the intention toward the harmful result would be regarded as intentional.[82] However, as long as acting "in violation of state regulations" is a condition of criminal liability, intent implied by knowledge of the illegality should be addressed by the prosecution.

5. Rule of Law

From the description above, it also became apparent that in some cases, the relationship between administrative environmental law and the criminal provisions in the Penal Code (the so-called subsidiary environmental criminal law) was not regulated in a very clear way. In some cases, it was even held that provisions from the Penal Code should be applied in analogy to other violations of administrative regulations. The adoption of these provisions has been criticized, as it is against the general principle of law concerning the prohibition of analogy.[83] Under the current criminal law, in accordance with the principle of legality, an explanation through analogy is prohibited. The leading opinion holds that the application of criminal law through analogy would result in discretionary decisions by judges and would hence

77. *See, e.g.*, H. Huang, Xingzheng Xingfa Bijiao Yanjiu [Comparative Study on the Administrative Criminal Law] 75-76, 79-80 (1st ed. 2001).
78. *See, e.g.*, Wang, *supra* note 17, at 5.
79. *See also* Richter, *supra* note 19, at 265, who also argues that the scope of application of Article 338 is limited through the fact that the requirements for the damage are high: property, health, or life have to be ensured, and a mere endangerment of these interests is not sufficient.
80. *See, e.g.*, B.J. Dong, *Huanjing Fanzui Lifa Sikao* [*Thinking of Legislation of Environmental Crime*], 6 Zhongguo Dizhi Daxue Xuebao [J. China Univ. of Geosciences (Soc. Sci. Ed.)] 78 (2006).
81. *See, e.g.*, Z.T. Zhang, *Huanjing Fanzui Guize de Zhuguan Yaojian Fenxi* [*The Imputable Subjective Requisites of Environmental Crime*], 25 Xiandai Faxue [Mod. L. Sci.] 70 (2003).
82. *See* Xu, *supra* note 26, at 95.
83. *See, e.g.*, K.C. Ma, Xingfa Xue [Criminal Law] 11 (3d ed. 2003).

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violate the basic rights of defendants.[84] Moreover, in that case, potential wrongdoers can no longer predict the consequences of their actions and may be subject to punishment for unforeseen reasons.[85]

IV. Suggestions for Reform

Even though one always has to be extremely careful with formulating suggestions for reform, especially when they are based on models of environmental criminal law that have especially been developed based on experiences in Europe and the United States, we nevertheless think that it is possible to formulate a few suggestions that may allow criminal law in China to provide a more adequate protection of the environment. Moreover, the suggestions based on the theoretical model are strongly in line with the criticisms formulated in legal doctrine in China as well.[86]

One obvious and general suggestion would, of course, be to reformulate the protection awarded through administrative and criminal law more along the lines of the ideal model developed in Section II.B. The core of these thoughts is that a variety of provisions is used that, with an increasing intensity of protection of ecological values, provides a more adequate protection by at the same time loosening the ties to administrative law. The sanctioning system should reflect the nature of the endangerment of ecological interests,[87] and a similar protection should be provided to similar ecological interests. For example, it is striking that now particular interests are strongly protected in the Penal Code (such as animals, plants, trees, and soil), whereas air or water do not receive adequate protection within the scope of the Penal Code.

A starting point for reform of environmental criminal law in China should also be that if one wishes to protect ecological values, that desire should be reflected through criminal law in China. It is striking that many environmental crimes in the Penal Code in fact do not aim directly at protecting the environment as such, but merely at protecting the economic use that is made of the environment (see, e.g., the relatively severe punishments for illegal logging).[88] If the Chinese legislator would decide that environmental interests deserve at least the same degree of protection as economic interests, this should also be reflected in the way the provisions and sanctions are formulated.

These rather general suggestions could be made more specific as follows.

First, it seems important to clearly punish the abstract endangerment of the environment through illegal activities, such as operating a plant without a license. For minor administrative violations, an administrative sanctioning system may of course suffice (as is the case in Chinese law today) but that at least requires that the level of sanction is substantially increased in order to provide an adequate deterrence. Moreover, some seemingly administrative violations may in fact be so potentially harmful to the environment (such as the operation of a chemical plant without a license) that even this mere abstract endangerment deserves protection through the criminal law.

Second, better and more integrated provisions could be included, aiming not only at the protection of animals, forests, and soils, but equally at the protection of other environmental components, such as air and water. Here, the relationship with administrative law, as explained in Section I, could be somewhat loosened. In this case, it is not merely the breach of an administrative obligation that is sanctioned, but an unlawful emission. The emission can potentially cause concrete danger to the environment, but it is only punished in the case of unlawfulness. However, this unlawfulness concept can be interpreted more broadly than merely a violation of administrative rules. Important environmental components, like water and air, deserve protection within the Penal Code.

A third step would be to include specific provisions for a serious endangerment of the environment. In the latter case, especially when not only the environment is endangered, but also human health, criminal law should be able to award its protection, even if the conditions of the permit are met. These independent environmental crimes (which of course should only apply in rare occasions) currently do not exist in environmental criminal law in China.

Moreover, it may be clear that from this general framework particular detailed suggestions for reform could also be deduced:

A first consequence would be that within a new, reformed framework, there should be no place any longer for environmental crimes where a particular consequence (pollution or serious consequences) needs to be proven. These crimes are very hard to prove in practice, given the causality requirement. By focusing on unlawful emissions, these causation problems are avoided. This would, for instance, lead to a fundamental rewriting of Article 338 of the Criminal Code, aimed at the punishing of "causing a major environmental pollution accident which leads to serious consequences." Within a new model, this provision could be rewritten as an independent crime where the condition that this would have to take place "in violation of the regulations of the state" would be eliminated.

A second point of reform would, of course, be that the link with administrative law should be formulated much more clearly. Also, Chinese legal doctrine is critical of the way in which in subsidiary environmental criminal law the link with the Penal Code is regulated. In some cases, the judge simply has to guess which provision of the Penal Code may apply in the case of a violation of administrative environmental law. It is in the interest of potential perpetrators, but also

84. *Id.*
85. *See, e.g.*, M.K. Zhang, Xingfa Xue [Criminal Law] 48-49 (3d ed. 2007).
86. *See, e.g.*, Wang, *supra* note 17, at 5-6, who equally argues that legislative changes are urgently needed in environmental criminal law in China.
87. Richter has suggested that endangerments should be criminalized as well, and that criminal law should focus less on the results of an action. *See* Richter, *supra* note 21, at 78.
88. Typical is also the fact that §6 dealing with environmental crimes is part of the chapter in the Penal Code dealing with "crimes of obstructing the administration of public order." There are, hence, many crimes with respect to the protection of nature and wildlife ("crimes of impairing resources"), but fewer crimes penalizing pollution. *See* Richter, *supra* note 21, at 69.

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of the environment, that the applicable provisions are clearly stated in advance.

Third, strongly related is the recommendation to formulate the conditions for criminal liability as clearly as possible, as is required by the *lex certa* principle, following from the legality principle. In some cases, it may be impossible for perpetrators (but hence also for the judiciary) to find out which penalties can be applied to a violation. In those cases, one can criticize this from the rule of law perspective, but it is equally clear that criminal law will then also lack its steering, deterrent effect. An effective criminal law needs to signal clearly ex ante to perpetrators which sanctions can be expected in case of particular behavior.

A fourth point would be to link much more clearly than is the case today the specific conditions of mens rea to specific provisions. A simple way to do this is not to require specific intent in case of abstract endangerment crimes, and to distinguish between the situations where someone acted knowingly or negligently in case of concrete endangerment crimes. The applicable sanction could, of course, also be differentiated according to the state of mind of the perpetrator. Lack of intent would, in that case, not lead to a dismissal of the case, but merely to the application of the (presumably lower) penalty for a negligent violation.

V. Concluding Remarks

In this Article, we critically analyzed environmental criminal law in China. On the one hand, we provided an overview of the provisions that could be applied to environmental pollution, and on the other hand, we critically reviewed current environmental criminal law in China, using a theoretical perspective developed in Europe and the United States, whereby an ideal model for environmental criminal law was developed.

It became clear that, even though the Penal Code in China has an impressive number of articles that formally deal with environmental pollution, many of those are in fact aimed at the protection of economic interests and less with the protection of the environment as such. Moreover, it became clear that the provisions in the Penal Code often contain very heavy conditions that have to be met in order to be applicable. It is especially problematic that the provision aimed at serious environmental incidents can only be applied if there is proof that this incident caused serious consequences. This puts a very heavy burden of proof upon the prosecutor, which may make it extremely hard to apply this provision in practice.

We also noticed that it is as such complicated to find out the precise scope of environmental criminal law, since many material provisions can be found in administrative environmental regulations that refer (in various and sometimes rather vague ways) to the criminal provisions in the Penal Code. Moreover, in some cases (especially those where no provision from the Penal Code can be applied), administrative sanctions could be applied. However, the statutory limit is very low, and the sanctions that would be applied in practice (more particularly administrative fines) are even lower.

We have, therefore, proposed that China needs to restructure its environmental criminal law in a fundamental way in order to be able to provide an adequate protection to the environment. Of course, we realize that to some extent, we have based these recommendations upon a model of environmental criminal law developed on the basis of experiences in the European Union and the United States. The danger of such a "legal transplant" is always that one would assume that solutions that worked well in the European Union and the United States may work well in China as well. In order to avoid this mistake, one would therefore have to look carefully at the particular institutional features of the Chinese legal system, also as far as enforcement is concerned. For example, the theoretical literature suggests a large reliance on administrative sanctions for mere breaches of administrative obligations (without emissions taking place). This, however, supposes that administrative agencies are well-equipped and able to establish violations in an independent manor, acting in the public interest. If these conditions were not fulfilled, it may of course be dangerous to rely upon administrative sanctions.

We also realize that one always has to be careful with judging the effectiveness of environmental criminal law in a country like China on the basis of a theoretical framework that has mainly been developed in the United States and Europe. Even though, on the basis of that framework, one could be critical of environmental criminal law in China, for example, because criminal provisions are not effective and statutory sanctions relatively low, one has to keep in mind that this should be interpreted within the particular Chinese context. Perhaps, in the legal-cultural context of China, where personal relationships (so-called *guanxi*) are very important, other elements than the mere formal sanction may also induce polluters toward compliance with environmental law. Those practical issues are undoubtedly still to be addressed in further research.

In general, we do realize that we have merely looked at one side of the coin: how to formulate an effective environmental criminal law on paper. The other side of the coin is admittedly at least as important: how will enforcement take place in practice and are judges in China willing to apply environmental criminal law against (also corporate) perpetrators?[89] These questions relating to the practice of environmental law enforcement in China are undoubtedly highly interesting as well, and could certainly be the topic of further research. But as we mentioned in the introduction: if one would have a perfect enforcement system but inadequate material provisions, enforcement would after all be pointless. Hence, we merely attempted to set the first step by examining material environmental criminal law in China and formulating suggestions for reform. After these have been implemented, attention should without any doubt also be given to the equally important aspect of effective enforcement.

89. In a 1995 article in an international journal, Cheng Yang argued that in China "polluting corporations and their officials are the untouchables" (mainly because of lacking enforcement of environmental law). *See* Yang, *supra* note 19, at 677. It is not so clear to what extent the situation has changed since then.

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Appendix: Overview of Environmental Crimes in the Penal Code of China

- Crime of smuggled rare animals and rare animal products (Chapter II, Article 151, Paragraph 2);
- Crime of smuggling of rare plants and rare plant products (Chapter III, Article 151, Paragraph 3);
- Crime of smuggling waste (Chapter VI, Article 339, Paragraph 3);
- Crime of illegal transfer of land use rights (Chapter III, Article 228);
- Crime of escaping the quarantine of animals and plants (Chapter VI, Article 337);
- Crime of major pollution incident (Chapter VI, Article 338);
- Crime of illegal disposal of imported solid waste (Chapter VI, Article 339, Paragraph 1);
- Crime of unauthorized imports of solid waste (Chapter VI, Article 339, Paragraph 2);
- Crime of illegal fishing of aquatic products (Chapter VI, Paragraph 340);
- Crime of killing the rare and endangered wildlife (Chapter VI, Article 341, Paragraph 1);
- Crime of illegal acquisition, transport, sale of precious and endangered species of wild animals and their products (Chapter VI, Article 341, Paragraph 1);
- Crime of illegal hunting (Chapter VI, Article 341, Paragraph 2);
- Crime of illegal occupation of arable land (Chapter VI, Article 342);
- Crime of illegal mining (Chapter VI, Article 343, Paragraph 1);
- Crime of destructive mining (Chapter VI, Article 343, Paragraph 2);
- Crime of illegal logging and the destruction of valuable trees (Chapter VI, Article 344);
- Crime of illegally chopping down trees (Chapter VI, Article 345, Paragraph 1);
- Crime of illegal denudation (Chapter VI, Article 345, Paragraph 2);
- Crime of illegal acquisition of timber through illegal logging and deforestation (Chapter VI, Article 345, Paragraph 3);
- Crime of illegal issuance of tree-cutting licenses (Chapter IX, Article 407);
- Crime of neglect of duty concerning environmental monitoring (Chapter IX, Article 408);
- Crime of illegal approval of requisition and occupation of land (Chapter IX, Article 410);
- Crime of illegal sale of use rights of state-owned land with low price (Chapter IX, Article 410);
- Crime of practicing favoritism and committing irregularities in quarantine of animals and plants (Chapter IX, Article 413, Paragraph 1);
- Crime of neglect of duty concerning quarantine of plants and animals (Chapter IX, Article 413, Paragraph 2).