

# ENVIRONMENTAL PROTECTION AND THE RULE OF LAW IN CHINA'S ENERGY SECTOR

LIBIN ZHANG<sup>\*†</sup>

## OVERVIEW

The future of China's energy industry will include market-oriented reforms. Property rights are a fundamental right in a market economy, and the protection of property rights is a cornerstone of a market economy. The definition and protection of the energy industry's property rights include the precondition that any enterprise, including various State-owned enterprises ("SOEs"), the three major State-owned oil companies, as well as privately owned and foreign-invested enterprises, can enter the energy industry. The definition and protection of the industry's property rights also includes the necessary condition that the energy industry initiates market-oriented reforms. With China's energy sectors' gradual evolution from the traditional model of State-run monopolies to that of a limited open-market model, the definition and protection of property rights in China's energy sectors naturally have become an important part of the country's relationship between energy and the law. At the same time, gradually creating a legal environment comprised of a constitution, laws, administrative regulations, local regulations and judicial remedies would be the key for China's successful economic reforms. This point also applies to the energy industry's market-oriented reforms.

However, we also need to realize that at present, any nation's, be it a nation governed by the rule of law or a nation that is transitioning towards the rule of law, property rights are also subject to various restrictions under the law. One kind of restriction is based on environmental laws and borne out of externalities that are a result of enterprises that pollute the environment. For any enterprise, moral self-restraint alone is insufficient in preventing said enterprises from

---

\* Libin Zhang is a graduate from the University of Texas at Austin School of Law with a J.D. degree and is licensed both in the State of New York and the PRC. He is currently the Head of Legal M&A-Asia & Australia at Siemens. He is also a fellow at the Resources, Energy and Environmental Law Institute of Peking University and a specially invited professor at the Tsinghua University Law School.

† Website translations were provided by this author.

polluting. Moreover, when the law does not require enterprises to take responsibility for their actions, then any enterprise can act in its own self-interest in order to maximize its profits by freely ignoring or abandoning implementing measures that would prevent environmental pollution.

Nature has granted mankind a variety of natural resources; however, mankind, by means of wealth creation, has exploited these natural resources to the point that many corners of the earth have now experienced disastrous consequences. Like everything, though, natural resource exploitation has positive and negative aspects. Objectively speaking, natural resource development and exploration comes with a variety of hazards. Mankind's unrestrained pursuit of wealth has and will lead to confusion, disputes, wars, and resource depletion. Also, the predatory exploration of natural resources will turn the gifts and welfare gained from nature into mankind's own curse. Environmental protection law and the limitations that it imposes on property rights result from the abuse of property rights that could lead to the destruction of environmental resources. It is widely known that China's environmental condition is deteriorating. The air, water, and soil are all severely polluted, the nation's ecosystem has been damaged, and the ever-increasing pollution levels threaten our quality of life, our health. We are also leaving the next generation with very few natural resources. Therefore our society will become, in and of itself, a major source of turbulence. In terms of government, there is a responsibility at every level to pass legislation that will enhance the nation's regulatory regime by transforming environmental pollution externalities into the responsibility of the enterprises that create these emissions. Moreover, there is no alternative.

Of course, in establishing such a mechanism, the appropriate regulatory issues should also be taken into account in order to avoid enterprises bearing excessive environmental liability costs, which could cause China's economy to stagnate. How to balance the needs of economic development and also environmental protection requires an approach that considers these two policy approaches with equal importance. To successfully address this matter, the Chinese government not only needs courage but also wisdom. To some extent, decreasing the high speed of gross domestic product ("GDP") growth and forcing enterprises to bear some external costs is a much better

route to change our nation's "extensive increase model," to improve our living conditions and to protect our nation's natural resources. This conclusion also applies to China's present energy industry and its values and concerns regarding economic development and environmental protection.

China is still in a transition period that is defined by its shift from a planned economy to a market economy. Meanwhile, China's judicial system and its process for managing environmental pollution still cannot function effectively. Also, there are many problems that still exist for many administrative departments; these problems include: noncompliance with and lax enforcement of the law, as well as rent-seeking, which result in unfair competition in the marketplace as well as other irregularities. In the absence of effective remedies, victims of environmental pollution are left with few or no measures that will protect their legal rights.

Currently, State-planning mechanisms and monopolies still exist in China's energy industry, specifically in some sectors such as upstream, midstream, and downstream oil and gas. Therefore, under this kind of planned economy model, the nation and society bear the cost of these circumstances and the consequent problems surrounding environmental externalities, which are still quite serious. That is why, in general, when looking at GDP, China's energy consumption per unit of GDP production is much higher than in Western market economies; the phenomenon of high-energy consumption and low output still exists. Moreover, the misuse of natural resources and environmental damage is still very common.

#### I. ECONOMIC ANALYSIS OF ENVIRONMENTAL PROTECTION

According to economic theory, in market economies or in those economies transitioning towards a market-based orientation, each market player, be it a SOE, private, or foreign enterprise, will naturally pursue profit maximization as its primary objective. If there is no mandatory legislation or a pricing mechanism transforming the destruction of public environmental resources into the intrinsic costs of production, each market player in most situations tends to pass on the costs of environmental damage to society. This makes up the economics of externalities. A Cambridge economist, Alfred

Marshall, first proposed the concept of externalities and later his student, Arthur Cecil Pigou further improved upon the theory of externalities with his famous work titled, *Welfare Economics*.

It can be said that environmental problems are a classic example of external diseconomies of production. Environmental resources are typically publicly shared commodities, whether it is an environmental resource used in manufacturing or for other means, their consumption is non-competitive and non-exclusive. This makes the ownership of environmental resources more difficult to clarify than other property rights. Regarding the use of environmental resources, the marginal private and social costs differ for single economic entities. In manufacturing, manufacturers directly bear the marginal private cost, which also includes raw material and labor costs, etc. However, they do not assume the marginal costs of air pollution that are caused by sulfur dioxide gas emissions, for example. When manufacturers determine appropriate levels of output, they will only consider private costs. However, from a social perspective, manufacturers' business costs not only include production costs but also costs that arise from damages caused by pollution, namely marginal social costs, and should be equal to the total of marginal private costs and pollution costs combined.<sup>1</sup>

China's coal mining industry is best able to illustrate the nation's market externalities. When compared to other parts of China's energy industry, China's coal sector was the first to experience market-oriented reforms, but the coal sector's externalities are still quite serious: China's coal mining enterprises are in part responsible for the damage done to the nation's soil and water resources and are also mainly responsible for the nation's serious air pollution problems. In 1994, China's coal industry was fully liberalized, and now the price of coal is on the rise. Nevertheless, high coal prices only contribute to the coal companies' high profits. It is also of note that with the lack of legislation that effectively limits the cost created by externalities, enterprises generally do not have any economic motivation to invest money in environmental protection. Even if an enterprise, such as a coal mining corporation, wanted to invest in solutions to some of China's current environmental problems, the

---

1. Cao Wenhui, *The Causes of Environmental Problems and the Solutions: An Economic Analysis*, 14 ECONOMIC FORUM, No. 14 (2008).

cumulative ecological and environmental problems caused by the long-term development of coal resources would result in massive ecological restoration and construction costs that one enterprise alone could not afford to pay.

Currently, China's coal production costs do not include ecological management costs, while developed nations generally incorporate ecological management costs of coal mining areas into the production costs so as to ensure a stable and reliable source of funding for ecological management.<sup>2</sup> Up until now, China's central and local governments have failed to establish a mechanism that would compel enterprises to pay for the ecological damage caused by coal mining activities. However, if there is no change in the pricing mechanisms and legislative provisions for these coal mining enterprises, then the externalities will become increasingly severe, which would undoubtedly contribute to the further degradation of China's environment. Moreover, researchers believe that establishing a sound coal development and environmental cost accounting system that factors both environmental and ecological costs into coal enterprises' operating costs would really compel coal enterprises to internalize environmental externalities for which they are responsible.<sup>3</sup>

According to the interpretation of the theory of externalities and its application to the environment, we can consider how to establish the rule of law in environmental protection by basing it on economic analysis of law. According to economists, the theory of externalities states that there are three paths that comprise the economic solution to ameliorate problems related to environmental pollution: first, direct State intervention. As early as the 1920s, Pigou addressed environmental problems caused by environmental externalities and argues that without government intervention, the market will not automatically fill this regulatory gap. Therefore, this provides a sound theoretical basis for the government to institute a collection of "command-control" policy instruments in order to protect the environment. Moreover, from a sustainable development perspective, State intervention is necessary. Unlike macroeconomic regulation and

---

2. Li Wei, Chen Longgan & Zhao JianLin, *China's Coal Mining Industry: Environmental Damage and Its Countermeasures*, 140 COAL MAGAZINE, No. 140.

3. Song Shijie, *Environmental Exploration & Coal Mining Regions: An Ecological Analysis of Environmental Damage and Control Measures*, 3 COAL PROCESSING AND COMPREHENSIVE UTILIZATION, No. 3 (2007).

control, State intervention and directly regulated microeconomic measures resolve market failures. Therefore, in order to effectively control the quality of the environment, environmental pollution regulations that prohibit, and restrict, as well as permit systems and standards certification systems must be implemented.<sup>4</sup> For example, China's current system of environment protection laws has an established permit system. Under this system, the environmental impact of various planning, development, and construction projects, sewage design, and business activities must all first be reported to the competent authorities; only after obtaining a permit can they commence operations. There are many types of permits, including: emissions permits, oceanic dumping permits, mining permits, construction permits, construction and operating permits for nuclear facilities, chemical management and transfer of hazardous materials permits, etc.

The second economic solution for environmental pollution is taxation (i.e., neo-classical "Pigovian Tax"). The basic idea is to use the State's policy to solve the problems caused by externalities, that is, taxing polluting industries to reconcile the difference between the marginal private and social costs. Moreover, Pigou advocated the adoption of a government-led mechanism by which externalities would be internalized by the polluting corporations so as to solve the problem of market failure resulting from environmental resource allocation. William Baumol, who succeeded and also built upon Pigou's views, believed that in order for enterprises to internalize emissions externalities, a corporate emissions tax must be enacted. Additionally, so as to achieve a "Pareto optimum," the established tax rate must depend on marginal damage caused by emissions; moreover, there should be no distinction between marginal revenue and costs of polluting companies.<sup>5</sup>

China's legal framework has already established a pollution levy system that regulates waste gas, waste water and waste residue. This type of collection system includes pollutants according to variety, quantity, and concentration; furthermore, this system levies fines against polluters and also those polluters that exceed established emissions standards. According to the interpretation of

---

4. Wenhui, *supra* note 1.

5. *Id.*

Chinese legislators, the main purpose of this system is to enable legislative authorities to regulate the relationship between economic development and environmental protection through the act of levying fines. This system can also facilitate enterprises to improve their technology and to strengthen their pollution-reducing abilities. Clearly, Chinese regulators have not conducted in-depth research on externalities from a perspective that considers the economic analysis of law. Also, these regulators have no clearly defined method for compelling companies to internalize the externalities so as to effectively curb pollution. In contrast, our neighboring country, Japan, has done a far better job than China in this regard: this author recently traveled to Japan on business and developed a deep admiration for Japan's positive results that have come about because of their steadfast commitment to environmental protection. According to local residents, Japanese corporations bear a relatively high social cost; this concept has been essential to the nation's success in achieving its admirable environmental protection goals.

Finally, the third economic solution for environmental pollution is the protection of property rights. In 1960, Ronald Coase in *The Problem of Social Cost* challenged the traditional view on externalities, taxes and subsidies. Coase believed that a particular activity associated with the existence of externalities does not necessarily require the government to intervene with taxes or subsidies. As long as property rights are clearly defined and transaction costs are zero, then the affected parties are able to implement the Pareto optimal results, and the nature of this result is independent of the initial property rights arrangements. Coase represents a new school of thought, which proposes a policy that addresses externalities and also the problems of market failure by using market-based mechanisms. As such, government intervention would not be necessary. An emission permits trading system is the application of said property rights theory with respect to resolving environmental pollution problems. Through establishing an emissions trading system, the government can establish a mandatory cap on emissions for a particular region, then emission rights will be given in the form of corporate or individual permits which are allowed to be used and traded; meanwhile, the market decides the price.<sup>6</sup>

---

6. *Id.*

The model of using property rights as means to resolve environmental pollution problems is a regulatory mechanism with a certain degree of flexibility that exists under the rigid emissions standards that the government sets to control aggregate pollution levels. Therefore, enterprises can enter the emissions market and purchase one kind of right, namely the right to pollute the environment. If, after a corporation pollutes, its benefits gained are greater than payment of the costs of certain environmental pollution (including living and societal costs), then this method can maximize the efficiency of resources allocation. That is, we do not need to emphasize the absolute value of the environment, and we can target specific cases and use negotiation and judicial relief to make polluters and other related parties obtain an optimum allocation of resources. Chinese corporations participate in the Kyoto Protocol's clean development mechanism by trading emission reduction certificates sold to foreign companies; this is an example of using property rights to solve environmental emissions problems.

Currently, China has yet to complete its process of reformation: the nation's market economy is far from established; the phenomenon of ambiguous property rights is also very common; and deeply rooted economic reform is difficult to achieve. Therefore, China urgently needs to pass legislation and implement effective enforcement in order to establish a framework with clear property rights. Moreover, a new phenomenon has recently emerged in China's economy: "*Guojin, mintui*," which shall be translated as "State capital rises while private capital falls." (Another translation of "*Guojin, mintui*" is "dominance of the State in the economy.") Moreover, this phrase more accurately describes the current regulatory atmosphere, which favors State-owned enterprises with governmental incentive policies and access to a variety of quality resources in order to make them bigger and stronger while privately owned enterprises exist in an increasingly unfavorable environment. In China's energy sector, there are still some units, such as large State-owned enterprises, that have no clear division of function between the government bureaus and the actual enterprises. Such large State-owned enterprises, including China's major energy companies, because of their sheer size and scale, have the potential to damage the environment to an extent that is considered greater and far more dangerous than many other Chinese enterprises.

More seriously, the government failed to perform its public duty to protect the environment. There are State-owned and provincial-owned enterprises that receive support from all levels of government; as such, some instances of damage to and misuse of environmental resources are a result of decisions made at every level of government. Under other circumstances, the government did not participate in the enterprise's managerial decision-making and were plausibly unaware of said enterprises' pollution activities. However, many practical solutions that hold polluters accountable for abusing environmental resources often favor State-owned enterprises, thus allowing them to evade serious repercussions.

What's more, as the Chinese law on "public interest" is not clearly defined, many government officials mistakenly think that the development of the local economy is the greatest public interest; therefore, environmental protection is neglected and there is no regard given to people's living conditions and its subsequent damage and pollution. Instead, high-sounding reason for all-out economic growth is used to support further environmental destruction.

Of course, the aforementioned solutions can be used as a hybrid of regulatory instruments to solve these problems. For example, in regard to environmental issues, some suggest that an environmental standard emissions tax, an emission permit trading system, and other policy instruments should be implemented. A hybrid approach is suggested because the instruments are flawed and are limited in their efficacy; only implementing one of these policies would not effectively resolve the larger collection of problems. Thus, various policy instruments need to be combined so as to improve the inherent quality and external conditions for environmental policies. In fact, most nations include a hybrid of policy instruments in its environmental legislation. China is also following this trend in that the nation's legislators have opted to implement a hybrid legislative approach which relies mainly on the first and second economic solutions mentioned above.

## II. ENVIRONMENTAL PROTECTION AND THE RULE OF LAW

In order to use the three economic solutions to achieve environmental protection targets, the market economy alone could not work

very well; legal measures should therefore be applied and implemented. Since the beginning of “Opening Up and Reform” in 1979, China has begun to draft and implement environmental protection legislation. According to Professor Wang Canfa’s introduction of China’s environmental law, in 1979 China developed the trial version of the nation’s Environmental Law. From then on, China’s environmental legislation began to develop. Compared with other legislative development in other sectors, China’s environmental legislation has developed the fastest over the past thirty years. In fact, it can be said that China’s environmental legislation is now quite comprehensive in its ability to address the country’s environmental problems. In particular, China’s Property Law also places great importance on resource conservation. Furthermore, the Property Law provides that air, solid-state waste, and noise pollution are all examples that violate citizens’ property rights.<sup>7</sup> The new Tort Law has also established civil liability provisions for environmental pollution.

Professor Wang Canfa believes that it is still difficult for China’s environmental protection laws to effectively curb the current decline in the quality of China’s environmental condition.<sup>8</sup> Also, the law does not serve its designated role; the results of implementing China’s environmental protection law are now less than satisfactory. Therefore, it is necessary to ask: though China has established a relatively comprehensive legal system for environmental protection, why has the environment not fundamentally improved? And why are there still many regions where conditions are still worsening? In this regard, the author would like to put forth the following analysis regarding the causes that have led to this situation and then offer a few suggestions for future improvement.

#### *A. Legislation: Shortcomings, Ambiguities, and Lenient Penalties*

Currently, one criticism that many make about China’s environmental protection laws is that this collection of laws is lacking a number of necessary legal provisions; there is also the criticism that

---

7. Wang Canfa, *The Field of Environmental Protection: Laws, Regulations, and Industrial Development*, Lecture at the People’s Daily Online forum *Review & Outlook: 30 Years of Reform and Opening Up China’s Environmental Protection Efforts* (Dec. 14, 2008).

8. *Id.*

existing laws are not effectively implemented and that legal non-compliance is a very serious issue. Take oceanic pollution as an example; the recent ConocoPhillips oil spill within China's maritime border underscores the deficiencies present in China's environmental protection laws. Now, it is apparent that the legislation used to determine compensation amounts for damage done to China's marine ecosystem needs to be updated. This is because the relevant State ministries can only devise penalties for the responsible parties based on part of the Marine Environment Protection Law, which covers oceanic water quality. However, the oil spill did more than affect water quality; it also affected marine life, including commercial fisheries, as well as the health of coastal residents living near the spill. Thus, it is evident that relying solely on China's current Marine Environment Protection Law to determine penalties for causing ecological damage is problematic. In contrast, the United States has a relatively sound set of applicable laws for adjudicating oil spills. After the British Petroleum ("BP") oil spill in the Gulf of Mexico, the U.S. Department of Justice initiated an investigation, which determined that BP may have possibly violated several laws, including the Clean Water Act, Endangered Species Act, as well as others. This investigation and its opinion demonstrate the provision of comprehensive, thorough, and compliant legal support for the victims and affected region.<sup>9</sup>

It is well known that coal is China's primary source of energy, but environmental protection enforcement in this industry is highly unsatisfactory. To some extent, the status of environmental protection in the coal industry is one of the main reasons why the nation's environment is facing destruction and degradation. Researchers who have examined the causes of China's environmental decline point out that the nation's coal mining regions lack a complete and effective set of laws that can protect the environment in these areas. Thus, the existing set of laws is unable to meet the practical needs of these troubled regions; China has long lacked systemic environmental management laws and regulations for coal mining areas. At the national legislative level, the Mineral Resources Law and Environmental Protection Law only provide environmental protection

---

9. ConocoPhillips Oil Spill: The Whole Story; China's Laws on Marine Oil Spills Are too Lenient, <http://www.jiuluo.com/jtbc/article/?type=detail&id=332> (last visited Aug. 22, 2012).

requirements in principle; specific management systems and regulations are clearly missing from these aforementioned laws. Also, these two laws provide very simple environmental obligations of the mining right owners in connection with exploration and exploitation of mineral resources, and are short of effective environmental protection provisions.<sup>10</sup>

Under Chinese environmental law, penalties, such as tax and other liabilities, for polluting entities are too lenient and are also insufficient for effectively solving externalities. Moreover, these penalties cannot fill the gap between marginal private and social costs that results from pollution. Therefore, Chinese legislators should enact stringent liability provisions under the country's environmental law. This legislative action would give teeth to the country's environmental legal framework by including higher taxes and harsher penalties for polluting entities. The general public view is that with respect to an oil spill which severely scars the oceanic region; the time and money being poured into the clean-up and recovery efforts will far exceed the maximum penalty that can be levied under the Marine Environment Protection Law, which is currently capped at RMB 200,000 yuan. Given the significant size of revenue and profits earned by national oil companies and international oil companies engaged in offshore oil development, the size of this penalty is clearly insignificant and also insufficient to deter enterprises from engaging in negligent behaviors that could result in future oil spills. As such, China should consider amending the existing law so that the penalties are higher and also take into account externalities; this action ensures that the larger society does not have to bear the social costs created by an individual enterprise's pollution.

*B. Law Enforcement: Unsatisfactory Results, Rent-Seeking, and Unequal Applications of the Law*

Another major criticism of China's environmental protection laws is ineffective implementation. Even if the country's legislators develop sound environmental laws and regulations with punitive teeth, these laws will only be as useful as the paper on which they

---

10. Wei, Longgan & Jianlin, *supra* note 2.

are written unless they are effectively implemented. At present, improper interference is the primary impediment to effectively enforcing China's environmental laws; improper interference can best be described as government corruption, bribery, judicial corruption, and unequal applications of the law. A rational form of law enforcement should hold everyone accountable to the law. Regardless of who pollutes, be it a State-owned enterprise or an enterprise with powerful supporters, everyone should be equal before the law; this is a fundamental principle of the rule of law. Otherwise, the law will become a tool of unfair competition. Furthermore, there are some local environmental protection bureaus that use environment protection penalties as means for generating income; this is entirely contrary to the spirit of the rule of law. As a result, it makes those being regulated lose respect and trust for the laws by which they are supposed to abide.

Within China's energy industry, there are currently a number of major accidents that remain unresolved and that leave its victims and the public without a reasonable explanation. This is often the case because China's large State-owned enterprises are behind these accidents, and many do not dare confront them over these issues. According to media reports, after the 2010 PetroChina 7-16 explosion occurred, the company bore no responsibility, nor did it give the public an account of what had happened. Moreover, the authorities did not penalize those who were responsible for the incident; such practices are worrisome. After the 7-16 incident, PetroChina further instigated the public's dissatisfaction with the situation by not only failing to hold anyone responsible for the accident, but it also held a rescue and relief awards ceremony. During the ceremony, nine work units and 197 people were awarded the titles of "Advanced collectives and individuals," respectively. Professor Lin Boqiang, the Director of the China Energy and Economy Research Center at Xiamen University, argues that PetroChina's accidents happen in the same place again and again; there is a dire need for accountability and an explanation.<sup>11</sup>

---

11. Securities Times, PetroChina Dalian: 4 Fires in 13 Months; Experts Suggest that Accountability Is Needed, <http://www.cnstock.com/index/cj/201108/1513611.htm> (last visited Aug. 22, 2012).

*C. Judicial Relief: Increase in Litigation Costs, a Lack of Procedural Requirements, and a Shortage of Professional Legal Talents*

Traditionally, government authorities use administrative means to solve problems that are precipitated by environmental pollution. However, these kinds of administrative measures are quite limited in their efficacy and are subject to various constraints that are affected by personal, procedural, and political factors. In a market economy, the judicial process is considered a more equitable, effective and reliable solution for environmental problems. Professor Wang Canfa pointed out that in the past, people would tend to emphasize administrative measures and place less stress on judicial means; that is, the laws and statutes could not be enforced by the courts, and people would therefore feel that laws were of no use. In recent years, environment-related court cases have increased at an annual rate of 25%, and some cities, including Kunming, Guiyang, Wuxi and Shenyang, have already established environmental courts. Additionally, some National People's Congress representatives have recommended that the Supreme Court issue a notice, which permits various places to establish environmental courts; these environmental courts will be established so as to allow more environment-related court cases to be initiated. The courts' application of the law to cases will boost the authority and legitimacy of the country's environmental law.<sup>12</sup>

At present, China's environmental litigation cases commonly have many problems. Among these problems is the fact that the courts sometimes refuse to docket this type of cases, and with respect to those cases which are successfully docketed in courts, plaintiff victims only win about 30 percent of such docketed cases. According to reports, on August 16, 2011, the State Oceanic Administration officially announced plans to initiate public interest litigation against ConocoPhillips after the oil spill in Bohai Bay. However, current domestic ecological public interest litigation has always had a difficult time with evidence and enforcement as well as other issues; therefore any definitive outcome still remains a distant prospect.<sup>13</sup>

---

12. Canfa, *supra* note 7.

13. ConocoPhillips Oil Spill: The Whole Story, *supra* note 9.

In order to improve China's environmental condition, the nation could consider establishing a nationwide special environmental court as well as fair and reasonable procedural rules regarding environmental litigation, evidence, and damage appraisal. This special court could also provide victims of environmental pollution with the opportunity to initiate civil action, particularly in the form of litigation, against polluting enterprises; thereby, victims would have the opportunity to obtain adequate and effective remedies, such as damages or injunctions. Moreover, this new court institution and set of procedures would allow victims and related public interest groups (including those that emphasize environmental protection) the opportunity to initiate administrative litigation against government departments for omissions or irregularities in government-developed regulations or practices. Compared with other methods, there is nothing more effective than victims of environmental pollution exposing polluting enterprises and defending their rights to do so. Their effect will be a thousand times better than that of the environmental regulatory authorities because these authorities are limited in manpower, resources, and subjective awareness. This is the only way that environmental justice can be asserted so that acts of pollution and environmental damage are condemned and punished. Furthermore, if those involved in disputes or issues regarding environmental pollution can effectively use legal channels to solve those problems precipitated by environmental pollution, then they will have foregone violent means to defend their legitimate rights. A benefit of using legal means to resolve environmental disputes is that it prevents such disputes from unnecessarily evolving into violent frays that draw the attention of the entire community.

In addition, China should also cultivate a large number of judges and lawyers who are well versed in environmental litigation so as to ensure that the judicial process functions effectively. After all, even the best systems and laws require talented people to operate them. Unfortunately, China still lacks experts and senior legal personnel who are well versed in environmental law. With the increasing number of environmental litigation cases, societal demands for senior legal experts in the field of environmental protection will also begin to increase. According to reports, the North Sea (Beihai) Branch of the State Oceanic Administration has announced that, in the wake

of the ConocoPhillips oil spill, it is seeking to employ a legal service team drawn from the whole country. This team will prepare a lawsuit that seeks reparations for ecological marine damage that resulted from the oil spill. The Beihai Branch said that it will invite domestic and maritime legal experts to form an expert evaluation group which is mainly responsible for conducting a preliminary examination of all the applicants and then selecting at least five teams to participate in the formal interview. For teams who participate in the second interview, the Beihai Branch will implement a systematic process in order to select the best candidates including one principal team and three or four assistant teams to provide the legal services in this case.

When evaluating the judicial system's effectiveness and its adjudication of environmental litigation, one must consider whether the victims of pollution receive adequate relief in a timely manner. In accordance with the provisions of General Principles of Civil Law Article 134, there are a total of ten civil liability remedies, among which, there are five that can be applied to environmental tort relief: cessation of infringements, removal of nuisance, elimination of dangers, restitution, and compensation for damages and losses. As such, we can take the cessation of infringements, removal of nuisance and elimination of dangers as types of remedies similar to common law injunctions. The infringed parties to environmental tort cases often include a large number of victims and such cases commonly carry high costs. Therefore, China's courts mainly grant compensatory remedies in the aforementioned cases. The reason is that the broad application of the injunction will deal a devastating blow to China's modern industrial base. Thus, courts generally only exercise an injunction for relief efforts on those polluting enterprises that will be minimally impacted or that have production activities of little value.<sup>14</sup> Among environmental disputes in China, most remedies involve monetary compensation.

In reality, China's environmental disputes have been on the rise in recent years. Although most of these disputes are resolved through administrative procedures, the current trend still indicates that there is an increasing number of cases being heard by basic-level district

---

14. Zhejiang Wanli, *Environmental Protection Law: An Economic Analysis* (thesis), available at <http://wenku.baidu.com/view/e7cf4910a2161479171128f6.html>.

courts. However, the compensatory amounts that parties received are on the decline. When the courts insufficiently compensate the victims for their losses, judicial relief then fails to serve its original purpose. Moreover, if the courts are useless in resolving externalities, then this equals encouraging the behavior of polluting enterprises. It is also unfair for those law-abiding enterprises that assume more external costs than others; therefore, when considering the saying, “bad money drives out good money,” it is no surprise that many enterprises opt to shirk their share of social costs that are precipitated by pollution.

In China’s civil infringement cases, the claimant generally bears the burden of evidence. As is often the case, polluting enterprises withhold information regarding their emission-related activities, while pollution victims only possess information regarding damages inflicted upon them. Thus this asymmetric information inevitably results in the shifting of the burden of evidence in pollution cases. Namely, in relation to the generation of pollution behaviors and the causation in pollution cases, the plaintiffs generally do not have to bear the burden of evidence. According to China’s judicial interpretation “Provisions of the Supreme People’s Court on Evidence in Civil Procedures,” Article IV, Section 3, “in any compensation claim relating to damage caused by environmental pollution, the party alleged to be responsible for such pollution shall be responsible for producing evidence to prove the existence of any exemption from liability as provided by law or that no causal relationship exists as between his conduct and any damage suffered.” The judicial interpretation did not specify the circumstances in which “shifting the burden of evidence” applies. In reality, the implementation of judicial practice has its deviations. For example, in the Hechi arsenic pollution case, the plaintiffs were asked to prove that there was a causal relationship between the infringement and the results of pollution, which was different from the holding in the Black Fungus case. Therefore, objectively speaking, the practice of different courts has created great uncertainty for environmental litigation.

In reality, the polluting enterprise is often a large entity with a government-related background while, in contrast, the plaintiffs in environmental litigation are often very weak. For many of these “little people,” it is often difficult, if not impossible, for them to bear

the high cost of initiating litigation, which includes filing fees, lawyer fees, fees for the appraisal of damages, and enforcement fees. However, if the judge rules in favor of the plaintiff, it may not only benefit the plaintiff individually, but also other individuals and communities that may have been affected by the defendant's polluting behavior. Based on the theory of externalities, the aforementioned fees are in fact the social costs, which are based upon personal and public interests for environmental protection. Therefore, it must be said that it is unreasonable for the "little people" to bear the costs of environmental protection, even if only in part, as many cannot afford to do so. Furthermore, if the plaintiff and the defendant each must bear the cost of litigation, then many plaintiffs would be discouraged from initiating civil action. In this regard, China should consider establishing a State or privately sponsored legal aid center that provides pro-bono legal services for victims of environmental pollution. China may also consider making legal provisions by which losing defendants are compelled to bear their opponent's legal costs. This is bound to encourage the victims of environmental pollution to pick up their legal weapons, and, by lawful means and procedures, assert their right against polluting enterprises.

### III. A SYSTEM FOR DISCLOSING ENVIRONMENTAL INFORMATION: ENSURING THAT POLLUTERS HAVE NOWHERE TO HIDE

Environmental management information instruments are considered a new approach for environmental management and are called a "third wave" in the history of mankind in controlling and fighting against environmental pollution. The primary measure for implementing this environmental information system is to publicize relevant information about environmental practices through various media outlets. Furthermore, through communal and public discussion, it is possible to place pressure on those entities that have questionable or destructive environmental practices. Through these media outlets, it is possible to achieve future environmental protection and preservation goals.<sup>15</sup> Actually, the three aforementioned solutions for resolving environmental pollution and the results of implementing and using each are inseparable from environmental information

---

15. Wenhui, *supra* note 1.

disclosure. If the government does not, in a timely manner, fully grasp the nation's environmental information, then the government's model of command and control regulation will lose its informational base for making crucial decisions. A lack of information will also lead to authorities implementing incorrect decisions or policies that deviate in varying degrees. In order to levy an "environmental tax," there must not be a lack of information; otherwise it will be difficult for authorities to quantify the externalities' full extent. For example, without comprehensive knowledge, it will be impossible to determine the difference between private and social costs, and thus, it will be impossible to effectively determine an adequate environment tax amount. Moreover, if it is impossible to determine an environmental tax, then it can also be said that externalities cannot ultimately be controlled. In regard to regulatory instruments that monitor property rights, environmental information is the operational foundation for an emissions trading system.

As can be seen from environmental information sources, all incidents of environmental pollution face serious problems of information asymmetry. Generally speaking, environmental information's sources, including information regarding environmental pollution, come from the polluters themselves. Polluters are well aware of pollutant generation, treatment, and disposal, but they also have reason to conceal their pollution activities. Environmental information disclosure requirements not only inform the public about polluting enterprises' situations, but it also gives the public the opportunity to take on a supervisory role. The more information that the public knows about polluting enterprises, the more pressure the polluters will feel to overcome a negative public image and to also reduce their emissions footprint by using pollution-free technology, and so on. Such a policy can greatly improve pollution and control efficiency under information asymmetry.<sup>16</sup>

Of course, the government should assume responsibility for environmental information disclosure. First, the government should adopt legislation that requires all enterprises to disclose information relating to the environment, and particularly those enterprises that will produce various forms of pollution; the disclosures should be specific and fully disclosed in a timely manner. Secondly, the

---

16. *Id.*

government, as the owner of State-owned enterprises, should instruct State-owned enterprises that might engage in pollution activities to strictly comply with statutory obligations to disclose environmental information. State-owned enterprises must not be an exception to this regulation. The government and polluting enterprises should be responsible to the people and society for major environmental accidents. Therefore, information on these accidents should be disclosed to the public in a complete and timely manner so as to avoid causing social and political crises. In fact, there are many cases that have already occurred and are worth our deep reflection. For example, on December 23, 2003, a serious blowout occurred in Kai County, Chongqing Municipality at PetroChina's Northeast Sichuan Gas Field. A highly toxic hydrogen sulfide blowout released gases with 40 MPa of pressure into the air for over 18 hours, thus resulting in the deaths of 234 people.<sup>17</sup> According to those present, after the blowout, the drilling crew notified as many residents as possible to leave the area, but they did not have enough time to alert the local government. Consequently, local authorities did not have enough time to notify everyone to evacuate the area.<sup>18</sup>

Oriental Outlook, from many aspects, discovered that after the accident happened, there was a notification chain that commenced from the drilling crew up to the Chongqing Municipal government and then back down again to the Gaoqiao town government, which presides over the location where the accident occurred. This flawed communication chain created a situation in which the authorities closest to the disaster were the last to know.<sup>19</sup> Clearly, if the drilling crew had been able to go directly to the town authorities after the blowout occurred, then more people could have evacuated earlier, thus minimizing the number of casualties.

According to the reporter, PetroChina developed Article 15 of the company's environmental management procedures, which states that in the event of an accident or other unexpected events that have caused or may cause significant pollution, it is necessary to take immediate and effective measures to address the problem. Additionally,

---

17. Pu Baoyi, Zhu Yu & Zhang Xudong, *Expert Analysis and the Truth About the Blowout in Kai County, Chongqing*, 8 *Questions for PetroChina*, ORIENTAL OUTLOOK WEEKLY (Jan. 5, 2004).

18. *Id.*

19. *Id.*

Article 15 states that it is necessary to provide timely information about potentially contaminated work units and residential areas to local and regional environmental protection departments as well as cooperate with any consequent investigations. However, facts in this case prove that Article 15 was not effectively implemented after the accident occurred.<sup>20</sup>

It should be pointed out that, in regard to environmental information, the government should be responsible for the following duties: first, the government should pass legislation that obliges polluters to perform their statutory obligation to disclose all necessary information. Second, environmental information for which enterprises bear no responsibility to publicly disclose, such as air, water, and soil quality reports, is the government's duty to obtain and then disclose to the public. It is also the government's duty to obtain this information through the use of public funds and to disclose such information in a timely manner. Finally, the government should develop appropriate measures that are based on environmental information in its possession to prevent future environmental accidents. In order to evaluate the work of government officials in the area of environmental information, China should include new performance standards that evaluate the quality of an official's work regarding environmental safety and the proper disclosure of environmental information.

#### IV. GOVERNMENT AUTHORITIES SHOULD ASSUME THE RESPONSIBILITIES OF PROTECTING THE ENVIRONMENT AND GUARDING PUBLIC INTERESTS

The government has obligations to implement the three above-mentioned economic solutions, which are based on the theory of externalities, to address the problems of environmental pollution. This is because the government is the guardian of public interests, which includes the public use of and access to environmental resources. Clearly, a precondition for effectively implementing the three aforementioned economic solutions is that the government can faithfully perform its duties representing the public's interest. How well a country protects its environment first depends on that country's government. Another reason for the government's mandate to

---

20. *Id.*

fulfill its inescapable responsibility is that environmental legislation, effective law enforcement, and judicial aspects need the government to play a major role. As for businesses and individuals that are regulated by the law, the main role of their environmental protection work is to remain in compliance with the government, the law and statutory regulations. In the event that the government remains passive or inactive, we cannot expect those enterprises that want to improve China's environmental conditions or those individuals in environmental protection to have much effect.

The government's command-and-control regulatory solution, (such as the permit system), levying taxes solution (such as levying sewage charges), and the emissions trading system provide spaces in which corruption and the trade of power for money can occur. If those government officials who are responsible for environmental monitoring abuse their position's power through accepting bribes, or there are other interfering factors, such as political or economic factors, then they cannot properly exercise their supervisory duties. Under such circumstances, the aforementioned regulatory solutions and the design and implementation of the nation's environmental regulations will fail or will be rendered ineffective. In addition, the nation's environment could face further degradation at the hands of unchecked polluting enterprises.

Currently, China's environmental law enforcement has some problems. The first problem is the environmental administration's inaction or insufficient enforcement of the law has resulted in a conspicuous absence of environmental regulation. This absence is primarily because many polluting enterprises have received the green light for projects while the responsible powers turn a blind eye to these enterprises' polluting activities. In order to protect these companies' stock listings and ability to attract foreign investment, the responsible authorities do not dare initiate investigations against them. The second problem is irregular law enforcement. Not only does environmental law enforcement lack any procedural adherence, but it also emphasizes penalties while neglecting to protect the people's legitimate rights and interests. The third problem involves abuse of power for personal gains. In this case, there are many enterprises that engage in graft in order to obtain favorable enforcement of the law; favorable enforcement includes shielding illegal enterprises

and assisting violators in evading legal penalties.<sup>21</sup> What's more, most of these phenomena occur in local environmental protection bureaus; the reason for this is that the above situation is related to the environmental regulatory system's institutional design. Under the current system, local environmental protection bureaus are part of the local governments. This can create an obstacle for the local environmental protection bureaus as projects that are supported by the local governments do not wait for the environment protection bureau's approval to commence work. This disregard for the environmental protection bureaus' authority makes it difficult for such bureaus to manage projects of this kind.<sup>22</sup>

China should establish a monitoring mechanism for environmental law enforcement agencies that could include measures such as empowering local people's congresses to hold government officials accountable for their work on environmental protection. Under the aforementioned mechanism, if it is discovered that a government official may have passively participated in supporting polluting enterprises or engaged in malfeasance, then it would be permissible to initiate an administrative suit pursuant to the PRC Administrative Litigation Law against the official for the alleged infringement. Moreover, this entire process would be open to the public and various media outlets so as to encourage a public dialogue regarding environmental law enforcement. Given previous instances of malfeasance amongst the authorities, it can be seen that there is a clear need to develop a supervisory apparatus for government officials. In fact, some researchers have pointed out that the government officials, as the enforcement agents of public and political affairs, often have opportunistic tendencies and also engage in rent-seeking behavior. As such, the greater society should strengthen its efforts to supervise government agents so that the government directly addresses and resolves environmental problems.<sup>23</sup>

To a large extent, China's environmental law enforcement efforts have been insufficient because China's environmental protection

---

21. Zhao Lijun & Cheng Lun, *Current Problems in Environmental Law Enforcement and Countermeasures*, 30 ENVIRONMENTAL SCIENCE AND MANAGEMENT, No. 3 (June 2005).

22. Chun Xiu, *Environmental Legislation and Enforcement Issues and Recommendations*, CHINA ENVIRONMENT NEWS, Sept. 20, 2003, [http://www.ep.net.cn/CGI-BIN/UT/topic\\_show.cgi?id=14556&bpg=19](http://www.ep.net.cn/CGI-BIN/UT/topic_show.cgi?id=14556&bpg=19) (last visited Aug. 22, 2012).

23. Sun Huili & Jiang Huafeng, *An Institutional Economic Analysis of Environmental Issues*, ECOLOGICAL ECONOMY, No. 7 (2007).

bureaus have not been given adequate powers; this delegation of limited powers is a direct result of the system's design. Researchers point out that although Chinese law provides for a unified environmental protection authority with supervisory and managerial functions, it does not clearly define those functions or how they should be employed. In reality, it is difficult for the environmental protection bureau to play a supervisory role for two reasons: first, it functions within the same administrative level as other bureaus and agencies, and second, it has not explicitly been given unified supervisory powers. It is, therefore, difficult to assume a supervisory role over other bureaus or agencies since other bureaus and agencies will not tolerate such regulatory interference. Overall, this situation is very unfavorable for pollution control.<sup>24</sup>

Since China's environmental regulatory functions are scattered amongst different government authorities, environmental supervisory responsibilities are currently not focused under one powerful regulatory authority. The recent ConocoPhillips oil spill case underscores the shortcomings of this regulatory framework. The oil spill case indicates that China's regulatory functions for marine environment pollution are entirely too fragmented; ideally, these functions should be consolidated under a strong regulatory authority. Looking at China's marine regulatory mechanism from a horizontal perspective, we see a panorama of the "nine dragons regulating the water," featuring marine, fisheries, environmental protection, maritime transportation, customs, borders, and other various bureaus and agencies. From a vertical perspective, each province's oceanic management is fragmented, as it is only responsible for managing the waters adjacent to its respective province. The existence of this system weakens comprehensive marine management functions as well as unified and efficient scientific coordination; moreover, this system makes it difficult to create a unified, effective and scientific management system.<sup>25</sup>

China's coal industry also lacks a strong and powerful eco-environmental management mechanism. Right now, management in respect to coal industry enterprises and the environment surrounding coal mines involves the Ministry of Environmental Protection,

---

24. Xiu, *supra* note 22.

25. ConocoPhillips Oil Spill: The Whole Story, *supra* note 9.

Ministry of Land and Resources, Ministry of Water Resources and the State Forestry Administration, but these authorities each have a different emphasis on environment management. As such, they only focus on their own authority and function; this makes it difficult for the above-mentioned authorities to come together as a unified force to regulate the environment of coal mining areas. Some bureaus dispersedly use the collected funds and do not spend the allocated funds exclusively on the protection of the environment affected by coal mining.<sup>26</sup> The author suggests that China should restructure its environmental regulatory authorities, free them from intervention and control from other bureaus and agencies and local governments at all levels, as well as empower them, and increase their manpower and expenditure funds for environmental regulatory authorities at all levels so as to strengthen their supervision intensity.

#### V. GOVERNMENT AND ENTERPRISE NEED TO RENEW THEIR THINKING, AND PURSUE SUSTAINABLE ECONOMIC DEVELOPMENT

Chinese government officials at all levels should renew their thinking and not just chase indicators of economic development while neglecting the protection of environmental resources. As the guardians of public interest, environmental regulatory authorities should adhere to the principle of environmental priority. The priority of the environmental regulatory authorities is environment protection. Based on the theory of externalities, every enterprise will put its economic interest first, and, lacking mandatory stipulation of the law, will neglect social costs and, generally speaking, will not actively increase investment in environment protection. So to speak, environmental regulatory authorities are the last line of defense or perhaps the only line of defense in the prevention or reduction of the costs of externalities.

Simultaneously, we should avoid any extreme view that prioritizes environment protection above all else. The principle of environmental priority does not mean that environment protection is decisive or prevails over economic development in any circumstance. Analysis of these two abstract notions of value in a specific factual

---

26. Wang Jiuming & Tan Jie, *Thirty Years of Environmental Protection in the Coal Industry*, 2 COAL PROCESSING AND UTILIZATION, No. 2 (2009).

circumstance is needed to put forward a meaningful balancing solution that is based on a specific problem. For example, coal is our nation's primary resource, and as a non-renewable resource, the extended activity of development and utilization of coal might incur various environmental problems which conflict with the notion of sustainable development. Therefore, in the process of developing and constructing coal mines, we should thoroughly research the possible destructive manner and degree of coal mining to the environment and devise protective measures, control negative factors, maintain ecological balance and minimize the negative impact of human activity on the environment.

From now on, how to balance economic development and environment protection will be a tough question that central and local leaders at all levels must face. To completely ignore environment protection and give a green light to polluting enterprises is an unfeasible economic development mode and will come to an end sooner or later. On the other hand, if the enforcement of environment protection is too stringent, thus stipulating excessively strict and economically unfeasible environment protection standards and requirements, it will suffocate the local economy. When balancing the economic development of the energy industry with the notion of environmental protection, the government needs to make sure that the cost of environment protection is affordable and economically viable. The moderate nature of environment protection requires us not to completely stall economic development because of environment protection, unless policy needs dictate that development in a select inland area must be suspended or terminated. Therefore, we need to avoid the excessive application of the environment protection law, and keep in mind the balance between property rights and environment protection restrictions.

In summary, for regulators, the priority is to find that perfect balance point at which environment protection and economic sustainability can progress together. Admittedly, to discover this balance point is not easy and actually many governments of developed countries are still struggling on this issue. The externality theory of microeconomics is a viable tool for us to reach the solution. Based on this theory, the costs incurred for complying with environmental regulations, which are to be imposed by the environmental authorities,

should be sufficient to offset the gap between the private marginal costs of the polluting enterprise and the social marginal costs in connection with the relevant polluting act. Therefore, via quantitative economic tools, this balance point may be easier to achieve.

When considering the relationship between economic development and environmental protection, some people hold a “develop first, manage later” point of view. This perspective is borne out of China’s early efforts to construct a socialist market: the government could afford to completely forgo environmental protection measures in order to foster economic development. This perspective further posits that environmental considerations could be addressed after the Chinese economy reached a certain level of development; however, this author begs to differ. First, a long and persistent barrage of externalities will only create an increasingly large burden for China’s posterity. The notion of “develop first, manage later” will easily lead to predatory exploitation of resources, resource depletion, and major environmental disasters, thus causing severe economic and social crises. Second, delaying environmental protection and treatment will lead to increased costs of environmental management. As such, the resulting costs of delaying environmental management will be much higher than the costs that arise from immediately managing pollution when it occurs. At the same time, allowing polluting enterprises to escape liability is also blatantly unfair since it leaves the burden to the next generation; we have no right to do this to our nation’s future. However, if this viewpoint persists, then our generation will infamously reside in the annals of history for the deleterious legacy that it created.

At present, the mantra “develop first, manage later,” still seems quite popular. If this persists, then China’s soil, air, and water quality will continue to be polluted; meanwhile, the environment of our and future generations would be much worse. As previously mentioned, this undesirable trend will likely result in social and political unrest. One particular example involves a host of cities in coal-rich Shanxi province that currently rely on coal to fuel growth. However, with the inevitable depletion of coal resources in the province, these cities will be faced with the daunting task of transformation or risk falling into decline. For long-term development in Shanxi, the province’s abundant coal resources will become a tragic

curse upon local residents and their well-being if environmental externalities remain unresolved.

When reflecting upon the past thirty years of reform and development, it can be said that economic growth was fueled at the expense of the environment. While China's economic growth has attracted worldwide attention for many years, this growth and attention has come at a great cost, the majority of which is arguably environmentally related. These environmental costs originate, in part, from China's numerable enterprises that enjoy a significant competitive cost advantage. While these enterprises might not be compelled to pay for the inherent social costs that they incur, these costs still persist and are instead imposed on the larger society. When we look out our window or walk through our front door, we, with heavy hearts, gaze upon an environment that has endured severe and persistent pollution. It will be every current and future citizen's burden to foot the bill for the costs that we have incurred these past thirty years.

There is still hope for China's future: government leaders are now keenly aware of the nation's environmental problems. As such, China's economic policy has changed, green GDP is now being promoted, and the notion of a sustainable and recycling-oriented economy is gaining strength. Admittedly, China still has much arduous and difficult work to do in order to effectively implement concrete laws, regulations, and projects. Furthermore, our generation is destined to pay a certain price for the environmental damage that has already been caused. For the future, it is still unclear whether our children will be able to live in a clean and beautiful environment. The result depends on our current actions and decisions; none of us are exempt from this burden that has been set before us.