Measures to reinforce the legal liability of the environmental interest subject
——Based on the perspective of law and economics

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Abstract. Local government should be regarded as the main subject to be stipulated by environmental law, thus to avoid local government’s alignment with commercial interests. Such a shift would, furthermore, discourage collusion against environment law or speculative behaviors motivated by maximizing production at the expense of environment pollution. Moreover, whether companies make proactive decisions to prevent pollution or not depends on the severity of appropriate environment legal system’s sanctions for their action. It would encourage enterprises to undertake their own environmental responsibility if environmental law could further enhance their environmental liability. In addition, public environmental rights should be embedded into environmental law. In this way, the public may become more aware of their environmental rights as well as the positivity of total environmental interests.

1. Introduction
The development and changes of modern society have increased and diversified environmental issues, and social interest reflects corresponding features of diversity and multi-level nature at the same time. Roles related to environmental protection can be divided into government, enterprises and the public. Heretofore, environmental issues could not be resolved effectively because of shortcomings in the substance of environmental liability, the active behavior of enterprises, and ineffective governmental regulation. However, as a quasi-public good, environmental factors have external effects with wider results including economic sustainable development, the long-term stability of the society, and so on; all the people can enjoy the environment as a matter of public welfare at the same time. Accordingly, the existing vacancy in legal liability with respect to environmental interest subjects, cannot be blamed simply on any one of government, enterprises and the public. In order to promote social overall environmental interests, we should revise legislation on the environmental liability of government, enterprises and publics.

2. Government: To bring the environmental liability of local government into legal regulation
The central government is generally unaware of what behaviors their proxies, the subordinate levels of government – or their end proxies of environmental liability, the officials – will take due to the incompleteness and asymmetry of information; nor do they even know what kind of behavior the proxies will take to perform their assigned environmental responsibilities. Malpractice occurs at the working effort level of supervising proxies. In contrast, in some western countries, local governments
provide the source of authority to the federal government. Such local governments are accountable to the people who elect them as opposed to owing an allegiance to a centralized sponsor. Meanwhile, there are coordinating relationships between the central government and local government as well as local government and officials, as they share the environmental and economic interests. In such a case, local authorities may actually go against higher-level government’s expectations. When local officials take regulatory action based on citizen welfare implications rather than strict code compliance, it will cause the principal-agency issues accordingly. The prisoner dilemma caused by the environmental interest game between government and enterprises can further aggravate the environmental liability failure of government [1].

In fact, if the government, especially local government, fails to enforce environmental responsibilities, they may become culpable for injuring the environmental interests of all the people through environmental pollution and ecological damage. This issue of governmental environmental liability should be incorporated into environment law. To view from the existing Environmental Protection Law, Atmospheric Pollution Prevention Law, Marine Environment Protection Law, and Solid Waste Pollution Environment Protection Law which are slip laws that involve in environmental pollution regulations and environmental protection, the main subjects of regulation are enterprises. The environmental liability of local government is not clear, so local government may align with enterprises as an interest group. Substantial economic interests may be exchanged, with correspondingly serious losses of regional environmental interests. Local officers sometimes trade off improvements of economic indicators for damage to regional environment and ecology - as well as personal promotion. This internalized response to personal interests worsens and is not effectively regulated by law directly [2].

Therefore, according to the legislative purpose of Environmental Protection Law, which is the first rule of Environmental Protection Laws of the People's Republic of China, in order to protect and improve life and ecologic environment, prevent pollution and other public hazard, ensure human health and promote the development of socialist modernization, this law is established, the rule of otherness should be issued as the law for the responsibilities taken by the central and local government in the affairs which are related to environmental interests. Rules should stipulate the local government within the regulation of environment law to avoid local government’s alignment with enterprises to be an interest group, and further conniving activities against environment law, or some speculative behaviors that favor production and profits over environment protection. More specifically, with the increasingly comprehensive environment protection act and other environmental legislation related to environmental pollution regulation and environmental protection, the primary regulator should be local government.

Firstly, as mentioned above, government responsibilities for active prosecution of environmental liability, including environment protection, pollution abatement and emission supervision etc. should be detailed clearly in the Environmental Protection Law. Further, in order to solve the principal-agency issue between the central government and local government on taking environmental liability, the central government should assume a role of providing more recommendations and support rather than prescribing mandatory measures when delegating the environmental liability to local government or officials. We can refer to the example of existing central-local practices for environmental management in America to clarify the allocation of environmental rights and responsibilities for all levels governments. At the same time, central government focus would shift to supporting local governments through financial power, providing guidance to local governments on enforcing environmental liability, researching environment protection, and supervising the polluting behaviors and so on through preferential fiscal and tax policy, appropriate industrial policy tilt, and approval for important construction projects, etc [3].

3. Enterprises: To strengthen the environmental obligation of enterprises by law

Firstly, in theory, there is a natural profitability motive for the enterprises - personal profit maximization is always the goal that they pursue when producing. On the other hand, the enterprises must comply with the laws, administrative regulations, social morals, commercial morality and honesty, accept the
supervisions of government and publics and undertake the social responsibility (The fifth rule in the first chapter of the Company law of the People's Republic of China) as an important object of environmental interests when they work on business operation. Enterprises must take their own environmental liability into account when they encounter environmental issues during operation. However, per previous analysis, we know that there is Nash equilibrium exists for the environmental interest game of enterprises. When enterprises reach tacit understanding, they naturally choose resource maximization and operation without waste treatment at the expense of environmental interests, environment pollution and serious ecological damage. Although the enterprises achieve the personal economic interest maximization, it results in huge losses to overall social interests due to the prisoner dilemma. Beyond this, it is clear that a cost-benefit imbalance exists in the process of the enterprises performing environmental liability; this results in a lack of motivation for the enterprises’ environmental protection and waste treatment.

As a powerful tool of influence, the law’s mechanism of action focuses on influence of the regulated subjects, accordingly, through economic incentives for environmental responsibility or failure by the enterprises. Enterprises make the decision of pollution or active abatement, motivated by the severity of sanctions on their behavior through the environmental legal system. Further strengthening the environmental obligation of enterprises in the environmental legal system will encourage enterprises to take their environmental responsibility more seriously [4].

In the process of the ecological civilization construction, the main goals of environmental legislation should focus on the adjustment of environmental interests among the different stakeholders. The legal regulation of rights and obligations create relationships which lead to compromise and harmonization among each other to reach the goal of reducing and eliminating the conflicts. For example, with respect to significant environment pollution affairs, the criminal responsibilities of the polluters and relevant principals should be called to account to reduce risk of environmental pollution, and mitigate the expected effects when the enterprises carry out the polluting behavior or inadequately deal with wastes, therefore reducing the cost of compliance while increasing costs of noncompliance - leading the polluters to adjust their emissions duly. In addition, it is imperative to clarify the environmental responsibility of the enterprises as obligation in environment law, especially the environmental obligation of the enterprises should be clarified in the slip laws related to environment pollution and environment protection. It is beneficial to break the Nash equilibrium of an enterprise and other enterprises, citizens and enterprises as well as government and enterprises and correct the thumb a lift mentality of enterprises, letting environmental law to play a necessary role of ensuring that enterprises’ meet environmental responsibilities and control their polluting behavior.

4. The public: To clear the environmental rights of publics by law

As mentioned above, the public should collectively advocate for environmental interests and consider personal environmental rights protection as an important component of environmental interests. All the people are beneficiaries of environmental protection and victims of environmental losses, due to the public character of environmental interests and the positive externality of environmental rights protection. Inevitably, the level of environmental interests promotion obtained by the individual rights protection and litigation is lower than the force of overall social requirements; therefore, the positive externality of individuals protecting environmental rights is much less efficient than social rights protection – essentially, ineffective.

As mentioned above, nowadays, the public lacks awareness and effective channels for environmental rights protection. Alternatively, a democratic environmental protection process would inform and empower citizens to recognize and advocate for responsible environmental practices. That is to say, we can confirm the programmatic position of environmental rights in the environmental law in theory. In the meantime, because environmental issues are getting worse and worse, the environmental rights should be embedded into environmental law to empower public rights. In this way, the public could bring reasonable litigation with respect to environmental pollution behavior of enterprises, government and interest group when their own environmental rights are injured. It is therefore beneficial to
strengthen the environmental awareness of the public and excite them to protect their environmental rights in environmental law as well as the positivity of total environmental interests [5].

Using haze issue as an example, personal health and life are threatened by unregulated emission of vehicle exhaust and waste gases, representing a market failure. Overall social environmental interests are menaced by the market. Individual citizens could organize as a social group voluntarily, based on underlying interests, actively advocating for relevant legislation for haze control or ask enterprises to take real methods for emission reduction. But currently, the environment does not support such social groups playing a role; civil awareness is insufficient and corporate strength is weak. Therefore, for the haze control, we should make an effort to build a civil society in the future so as to ensure an environment in which such social groups and organizations can play a role.

Furthermore, personal and public interests should cooperate through a principle of public participation in environmental legislation. This means that environmental law should ensure the wide participation of the different interests and mechanism they advocate. When the environmental legislation involves divers interests and significant legal influence, all stakeholders can participate in sufficient communication and negotiation before making final decisions. Meanwhile, they should ensure the wide range and the relative equal status of the participators as possible as from the legal level, and make the interests demands of all stakeholders - especially those in weak positions – are heard. Thence the supply of environmental legislation is perfected accordingly basing on this benchmark - just as the NEPA process in the US, which provides a framework for citizens’ involvement and stakeholder conversations.

To establish and perfect the principle of public participation, environmental legislation should be modified in several ways. Firstly, public participation should be established as a legislative principle of the environmental law: clarify the environmental rights of the public in the legal level, make sure the reasonable rights of the public and all interests subjects in the process of environmental legislation such as the rights of supervision and the rights to know, and excite the environmental rights and the environmental legal awareness of the public. Secondly, the relevant legal regulations should be equipped to ensure the rights of publics effectively, perfect the expression mechanism of the public to the interests demands, make the interests demands of the public being able to go up to the legal level effectively, push the supply of the environmental legislation to be perfected in the standard of demands, and provide additional force for the improvement of imbalance between supply and demand on the environmental legislation. In addition, initiating from the legal interests relief function, establish and perfect the system of environmental public benefit lawsuit, provide the platform to protect and relieve the vulnerable interests for the vulnerable groups, excite the public to protect the vulnerable interests, and guide the public to pay attention to and protect their own environmental interests and rights [6].

5. Conclusion
Local government should be regarded as the focal point to be stipulated by environmental law, as the direct authority with respect to enterprises’ illegal emission. In the past, the government, especially local government, already was party to injuring the environmental interests of all the people and caused environmental pollution and ecological damage; therefore governmental environmental liability should be incorporated into the environment law. The law should also clarify the corresponding responsibilities of local government and central government. It should fit the local government into the regulation of environment law to avoid local government’s alignment with enterprises as an interest group, and further conniving activities against environment law, or undue emphasis on maximizing production at the cost of environment pollution. Moreover, as an important subject of environmental interests when they work on business operation, the enterprises should manage their own liabilities when they encounter the environmental issues during operation. Whether companies make proactive decisions to treatment pollution or not depends on the severity of appropriate environment legal system’s sanctions for their action; it will be better for enterprises to undertake their own environmental responsibility if environmental law can further enhance enterprises’ environmental liability. In the process of the ecological civilization construction, the main goals of environmental legislation should focus on the
adjustment of environmental interests. Conflict among the different interest subjects and legal regulations of rights and obligations require the environmental interests to compromise and harmonize with each other to reach the goal of reducing and eliminating the conflicts. In addition, as the important subject of environmental interests, the public are beneficiaries of environmental interest promotion and undertakers of environmental interest losses at the same time. Because environmental issues are getting worse and worse, the environmental rights should be fitted into environmental law to clear up the environmental rights of publics in law. In this way, the public can make reasonable litigation to the environmental pollution behavior of enterprises, government and interest group when their own environmental rights are injured. It is beneficial to strengthen the environmental awareness of the public and excite the public to protect their environmental rights in environmental law as well as the positivity of total environmental interests, reinforcing the interests of all interests subjects, especially who is in weak position. Environmental legislation may be clarified and therefore improved accordingly, based on this benchmark.

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References
[1] Gong L L and Wang G F 2012 Public and political dimension of environmental justice-- Institutional arrangements for environmental goods distribution system Study and Explore 2012(5) 10-2
[2] Wu Y X 2013 Research on the basic legal responsibility of environmental damage identification Environment and Sustainable Development 2013(03) 22-5
[3] Zhang W 2011 Research on legal responsibility of environmental administrative subject (Harbin: Northeast Forestry University)
[4] Naohiko H 1999 Environmental Law -- Law Books of the Waseda University in Japan (Law Press)
[5] Morck R, Yeung B, Wu J, Deng Y H and Huang J 2013 Incentives and outcomes: China's environmental policy (National Bureau of Economic Research Working Paper) 18754
[6] Chen D D 2017 A study on the legal responsibility of environmental administrative subject in China Legality Vision 2017(02) 65-7